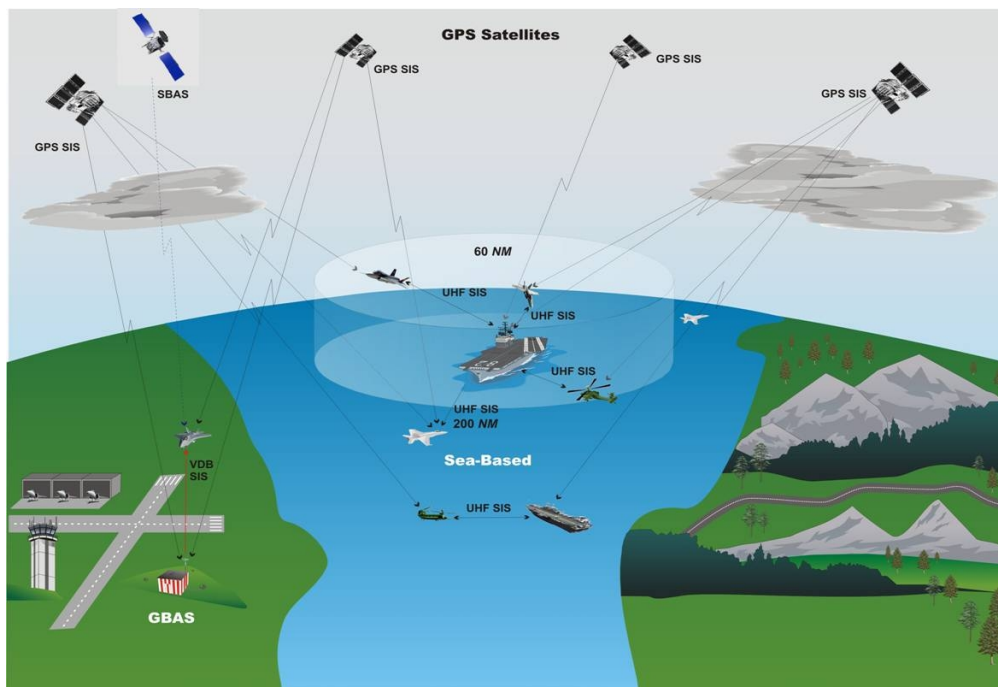




Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-238



Joint Precision Approach and Landing System Increment 1A (JPALS Inc 1A)

As of FY 2011 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

Table of Contents

Common Acronyms and Abbreviations for MDAP Programs	3
Program Information	5
Responsible Office	5
References	5
Mission and Description	6
Executive Summary	7
Threshold Breaches	8
Schedule	9
Performance	10
Track to Budget	13
Cost and Funding	14
Low Rate Initial Production	23
Foreign Military Sales	24
Nuclear Costs	24
Unit Cost	25
Cost Variance	28
Contracts	31
Deliveries and Expenditures	32
Operating and Support Cost	33

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

Joint Precision Approach and Landing System (JPALS) (JPALS)

DoD Component

Navy

Responsible Office

CAPT C. L. Jaynes
Program Executive Officer, Tactical Aircraft Programs
(PMA213)
22289 Three Notch Road
Exploration V, 4th Floor, Suite 401
Lexington Park, MD 20653

Phone: 301-995-4063
Fax: 301-995-7739
DSN Phone: 995-4063
DSN Fax: 995-7739
Date Assigned: October 11, 2007

cj.jaynes@navy.mil

References

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated December 19, 2008

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated December 19, 2008

Mission and Description

Joint Precision Approach and Landing System (JPALS) is a program with Tri-Service partners for acquisition of JPALS including the Navy (PEO(T)/PMA213, Patuxent River, MD), Air Force (653rd Electronic Systems Wing (653 ELSW)), Hanscom Air Force Base (AFB), MA), and Army (PEO Aviation, Redstone Arsenal, AL). JPALS is a Global Positioning System (GPS)-based precision approach and landing system that will replace several aging and obsolete unique aircraft landing systems. JPALS will provide a family of systems that is more affordable, will function in more operational environments, and will support all Department of Defense (DoD) Land and Sea Based applications. The National Defense Strategy of the United States of America calls for highly mobile forces that can rapidly respond to crises worldwide. Success in meeting this challenge requires the ability to land aviation assets virtually anywhere, at any time. JPALS will provide this capability by being rapidly deployable, survivable and interoperable among the U.S. Services and with U.S. allies, as well as with civil aircraft and landing facilities. JPALS will eventually support unmanned and highly automated aircraft, and will be able to operate during restricted Emission Control (EMCON) conditions.

The approved JPALS Acquisition Strategy has broken acquisition into seven increments, based on technology maturity and Service needs. Increment 1 Sea Based JPALS is separated into two phases: Increment 1A ship based systems and Increment 1B aircraft integration. The program initiated at Milestone B and reported in this SAR reflects Increment 1A only.

The JPALS Capability Development Document (CDD) approved by a Joint Requirements Oversight Council (JROC) memorandum dated March 16, 2007, included direction for the U.S. Navy to be the lead service for JPALS. Although not approved by the JROC, JPALS Increments 2 through 7 are as follows:

Increment 2, to be executed by the Air Force, encompasses all Fixed and Mobile Systems that support 200 feet Decision Height (DH) and ½ Statute Mile (SM) visibility that supports auto-land for properly equipped aircraft.

Increment 3 encompasses Fixed and Mobile Systems to support Federal Aviation Administration certification to 100 feet DH and ¼ SM visibility and a Sea Based system that supports auto-land for properly equipped aircraft.

Increment 4 will provide a Sea Based JPALS capability that supports 100 feet DH and ¼ Nautical Mile (NM) visibility, including auto-land and unmanned aerial vehicle support.

Increment 5 will encompass land based man-pack systems certified to minimums based on service needs.

Increment 6 will support Special Operations Forces, mobility missions, and subsequent combat operations with an autonomous approach and landing capability.

Increment 7 is an upgrade to the Sea Based back-up capability, involving reliability, maintainability, and life cycle improvements to the AN/SPN-41 Instrument Carrier Landing System (ICLS).

Executive Summary

This is the initial SAR submission for the Joint Precision Approach and Landing System (JPALS) Increment 1A program.

The Defense Acquisition Executive (DAE) conducted a Defense Acquisition Board (DAB) review for the JPALS Increment 1A program on June 21, 2008, and designated JPALS Increment 1A as a Major Defense Acquisition Program (MDAP) Category ID and approved Milestone B for Increment 1A. The Acquisition Decision Memorandum (ADM), Acquisition Program Baseline (APB), Acquisition Strategy (AS), and Section 2366a of Title 10 Milestone B Certification was approved and signed by the Under Secretary of Defense, Acquisition, Technology and Logistics (USD AT&L) on July 14, 2008.

The JPALS development contract was competitively awarded to Raytheon Corporation on July 17, 2008. Following contract award on July 30, 2008, a Government Accountability Office (GAO) bid protest against the contract award was issued with an associated stop work order. Subsequently, the bid protest was withdrawn and a contract restart letter was issued on September 5, 2008. An ADM dated October 8, 2008, revised the due dates for the July 14, 2008, ADM directed actions. The new due dates were aligned with the September 15, 2008, contract restart date. On December 19, 2008, USD(AT&L) approved the APB baseline schedule. This change aligns with the September 15, 2008, Engineering and Manufacturing Development (EMD) contract restart date.

Several major events were conducted by the JPALS Increment 1A program in 2009. These events included: System Requirements Review (SRR)-2 on January 21-22, 2009, Integrated Baseline Review (IBR) on April 24, 2009, System Functional Review (SFR) on June 24-25, 2009, and Preliminary Design Review (PDR) on December 15-17, 2009. The system allocated baseline was reviewed and approved at PDR. There have been no Capability Development Document (CDD) requirement changes and the system design is expected to be stable as the program completes detailed design in 2010.

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

Threshold Breaches

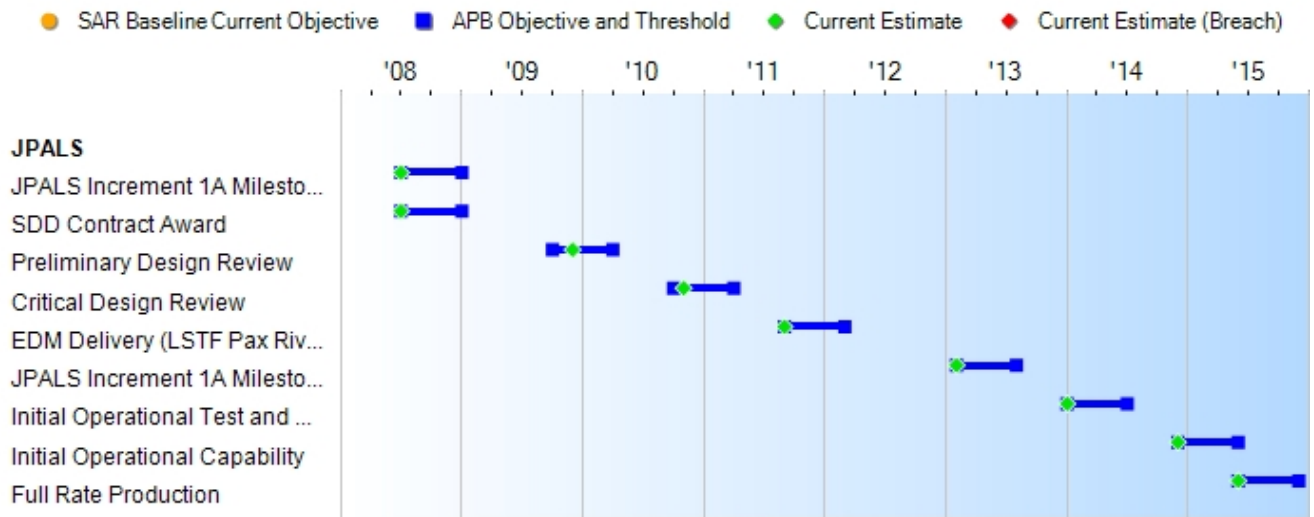
APB Breaches

Schedule		<input type="checkbox"/>
Performance		<input type="checkbox"/>
Cost	RDT&E	<input type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
O&S Cost		<input type="checkbox"/>
Unit Cost	PAUC	<input type="checkbox"/>
	APUC	<input type="checkbox"/>

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
JPALS Increment 1A Milestone B	Jul 2008	Jul 2008	Jan 2009	Jul 2008
SDD Contract Award	Jul 2008	Jul 2008	Jan 2009	Jul 2008
Preliminary Design Review	Oct 2009	Oct 2009	Apr 2010	Dec 2009
Critical Design Review	Oct 2010	Oct 2010	Apr 2011	Nov 2010
EDM Delivery (LSTF Pax River)	Sep 2011	Sep 2011	Mar 2012	Sep 2011
JPALS Increment 1A Milestone C	Feb 2013	Feb 2013	Aug 2013	Feb 2013
Initial Operational Test and Evaluation	Jan 2014	Jan 2014	Jul 2014	Jan 2014
Initial Operational Capability	Dec 2014	Dec 2014	Jun 2015	Dec 2014
Full Rate Production	Jun 2015	Jun 2015	Dec 2015	Jun 2015

Change Explanations

None

Acronyms and Abbreviations

- EDM - Engineering Development Model
- JPALS - Joint Precision Approach and Landing System
- LSTF - Landing System Test Facility
- PAX - Patuxent
- SDD - System Development and Demonstration

Performance

Performance Characteristics				
SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Demonstrated Performance	Current Estimate
<p>Network Ready: The system must support Net-Centric military operations. The system must be able to enter and be managed in the network, and exchange data in a secure manner to enhance mission effectiveness. The system must continuously provide survivable, interoperable, secure, and operationally effective information exchanges to enable a Net-Centric military capability.</p>				
<p>The system must fully support execution of operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for Net-Centric military operations to include: 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services, 4) IA requirements including availability, integrity, authentication, confidentiality, and nonrepudiation, and issuance of an ATO by the DAA, and 5) Operationally effective information exchanges; mission critical performance and IA attributes; data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views.</p>	<p>The system must fully support execution of operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for Net-Centric military operations to include: 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services, 4) IA requirements including availability, integrity, authentication, confidentiality, and nonrepudiation, and issuance of an ATO by the DAA, and 5) Operationally effective information exchanges; mission critical performance and IA attributes; data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views.</p>	<p>The system must fully support execution of joint critical operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services, 4) IA requirements including availability, integrity, authentication, confidentiality, and nonrepudiation, and issuance of an IATO by the (DAA), and 5) Operationally effective information exchanges; mission critical performance and IA attributes; data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views.</p>	TBD	Yes
<p>Guidance Quality</p>				
<p>Certification for operations in 0 ft ceiling and 0 NM visibility conditions.</p>	<p>Certification for operations in 0 ft ceiling and 0 NM visibility conditions.</p>	<p>Sufficient quality to allow the Service to certify the sea-based system for use in 200 ft ceiling and ½ NM visibility weather conditions.</p>	TBD	Exceeding Threshold with margin

Manpower				
Should reduce current manning levels when currently fielded systems are phased out. Should require no dedicated personnel. Should be reduced to no more than one qualified air traffic controller.	Should reduce current manning levels when currently fielded systems are phased out. Should require no dedicated personnel. Should be reduced to no more than one qualified air traffic controller.	The total number of dedicated maintenance and/or logistics personnel needed to support Sea-Based JPALS per shift shall be no more than one person. The number of qualified final controller positions per shift on CVN/LH ship classes shall be no more than two air traffic controllers.	TBD	0
Operational Availability in Clear Air				
JPALS Ao requirement in clear air for manned aircraft to 200 ft - ½ NM mins should be at least 99.7%.	JPALS Ao requirement in clear air for manned aircraft to 200 ft - ½ NM mins should be at least 99.7%.	JPALS Ao requirement in clear air for manned aircraft to 200 ft - ½ NM mins shall be at least 99.0%.	TBD	.998

Requirements Reference

Capability Development Document (CDD) dated March 16, 2007

Change Explanations

None

Notes

The JPALS requirements are documented in the Capability Development Document (CDD), which was approved by the Joint Requirements Oversight Council (JROC) on March 16, 2007.

Acronyms and Abbreviations

Ao - Operational Availability
ATO - Approval to Operate
CVN - Carrier Vessel Nuclear
DAA - Designated Approval Authority
DISR - DOD Information Technology Standards and Profile Registry
ft - Feet
GIG - Global Information Grid
IA - Information Assurance
IATO - Interim Approval to Operate
IT - Information Technology
JPALS - Joint Precision Approach and Landing System
KIP - Key Interface Profile
LH - Amphibious Assault Ship
mins - Minimums
NCOW RM - Net Centric Operations and Warfare Reference Model
NM - Nautical Mile
TBD - To Be Determined
TV - Technical Standards View

Track to Budget

RDT&E

Appn	BA	PE
------	----	----

Navy 1319 04 0603860N

Project	Name
---------	------

E2329

Procurement

Appn	BA	PE
------	----	----

Navy 1810 02 0204112N

Line Item	Name
-----------	------

2867

MILCON

Appn	BA	PE
------	----	----

Navy 1205 01 0805376N

Project	Name
---------	------

P977

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2008 \$M			BY 2008 \$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	753.7	753.7	829.1	724.4	781.4	781.4	741.6
Procurement	202.9	202.9	223.0	207.2	243.7	243.7	238.6
Flyaway	--	--	--	149.0	--	--	171.7
Recurring	--	--	--	147.9	--	--	170.4
Non Recurring	--	--	--	1.1	--	--	1.3
Support	--	--	--	58.2	--	--	66.9
Other Support	--	--	--	51.0	--	--	58.6
Initial Spares	--	--	--	7.2	--	--	8.3
MILCON	6.6	6.6	7.3	6.7	6.8	6.8	6.8
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	963.2	963.2	N/A	938.3	1031.9	1031.9	987.0

Cost Notes

All costs include only JPALS Increment 1A funded by the JPALS Program Office.

Total Quantity			
Quantity	SAR Baseline Development Estimate	Current APB Development	Current Estimate
RDT&E		12	11
Procurement		25	26
Total		37	37

Quantity Notes

Unit of Measure: The physical architecture of a JPALS system consists of multiple equipment racks, processing equipment, sensors, radios, and antennas.

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	288.1	138.7	121.2	74.7	79.7	39.2	0.0	0.0	741.6
Procurement	0.0	0.0	0.0	0.0	0.0	15.8	72.8	150.0	238.6
MILCON	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2011 Total	294.9	138.7	121.2	74.7	79.7	55.0	72.8	150.0	987.0
	--	--	--	--	--	--	--	--	--

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	11	0	0	0	0	0	0	0	0	11
Production	0	0	0	0	0	0	2	9	15	26
PB 2011 Total	11	0	0	0	0	0	2	9	15	37
	--	--	--	--	--	--	--	--	--	--

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
2001	--	--	--	--	--	--	7.4
2002	--	--	--	--	--	--	13.2
2003	--	--	--	--	--	--	15.3
2004	--	--	--	--	--	--	17.7
2005	--	--	--	--	--	--	25.9
2006	--	--	--	--	--	--	32.4
2007	--	--	--	--	--	--	35.3
2008	--	--	--	--	--	--	66.8
2009	--	--	--	--	--	--	74.1
2010	--	--	--	--	--	--	138.7
2011	--	--	--	--	--	--	121.2
2012	--	--	--	--	--	--	74.7
2013	--	--	--	--	--	--	79.7
2014	--	--	--	--	--	--	39.2
Subtotal	11	--	--	--	--	--	741.6

Annual Funding 1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 2008 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2001	--	--	--	--	--	--	8.5
2002	--	--	--	--	--	--	15.0
2003	--	--	--	--	--	--	17.2
2004	--	--	--	--	--	--	19.3
2005	--	--	--	--	--	--	27.6
2006	--	--	--	--	--	--	33.4
2007	--	--	--	--	--	--	35.6
2008	--	--	--	--	--	--	66.1
2009	--	--	--	--	--	--	72.5
2010	--	--	--	--	--	--	134.2
2011	--	--	--	--	--	--	115.7
2012	--	--	--	--	--	--	70.1
2013	--	--	--	--	--	--	73.6
2014	--	--	--	--	--	--	35.6
Subtotal	11	--	--	--	--	--	724.4

Annual Funding 1810 Procurement Other 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	
2014	2	14.2	--	--	14.2	1.6	15.8	
2015	9	46.6	--	1.3	47.9	24.9	72.8	
2016	9	50.1	--	--	50.1	20.2	70.3	
2017	6	47.8	--	--	47.8	16.9	64.7	
2018	--	11.7	--	--	11.7	3.3	15.0	
Subtotal	26	170.4	--	1.3	171.7	66.9	238.6	

Annual Funding 1810 Procurement Other Procurement, Navy								
Fiscal Year	Quantity	BY 2008 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2014	2	12.7	--	--	12.7	1.5	14.2	
2015	9	41.1	--	1.1	42.2	22.0	64.2	
2016	9	43.5	--	--	43.5	17.5	61.0	
2017	6	40.8	--	--	40.8	14.4	55.2	
2018	--	9.8	--	--	9.8	2.8	12.6	
Subtotal	26	147.9	--	1.1	149.0	58.2	207.2	

Cost Quantity Information 1810 Procurement Other Procurement, Navy		
Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned With Quantity) BY 2008 \$M
2014	2	12.7
2015	9	52.3
2016	9	51.0
2017	6	31.9
2018	--	--
Subtotal	26	147.9

Annual Funding 1205 MILCON Military Construction, Navy and Marine Corps	
Fiscal Year	TY \$M
	Total Program
2008	6.8
Subtotal	6.8

Annual Funding 1205 MILCON Military Construction, Navy and Marine Corps	
Fiscal Year	BY 2008 \$M
	Total Program
2008	6.7
Subtotal	6.7

Low Rate Initial Production

JPALS currently has no approved Low Rate Initial Production quantities.

Foreign Military Sales

None

Nuclear Costs

None

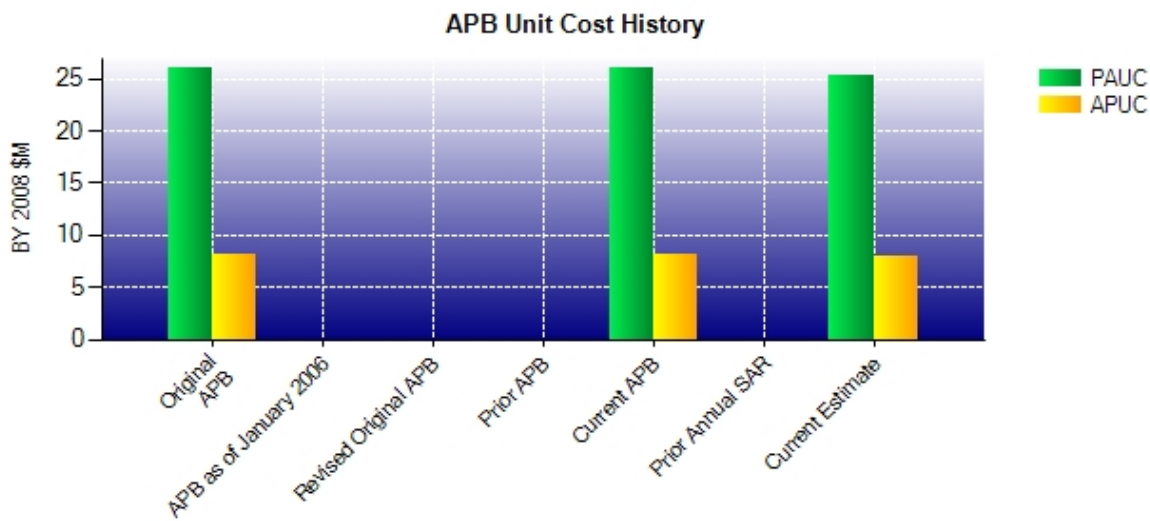
Unit Cost

Unit Cost Report

Item	BY 2008 \$M	BY 2008 \$M	% Change
	Current UCR Baseline (Dec 2008 APB)	Current Estimate (Dec 2009 SAR)	
Program Acquisition Unit Cost			
Cost	963.2	938.3	
Quantity	37	37	
Unit Cost	26.032	25.359	-2.59
Average Procurement Unit Cost			
Cost	202.9	207.2	
Quantity	25	26	
Unit Cost	8.116	7.969	-1.81

Item	BY 2008 \$M	BY 2008 \$M	% Change
	Original UCR Baseline (Dec 2008 APB)	Current Estimate (Dec 2009 SAR)	
Program Acquisition Unit Cost			
Cost	963.2	938.3	
Quantity	37	37	
Unit Cost	26.032	25.359	-2.59
Average Procurement Unit Cost			
Cost	202.9	207.2	
Quantity	25	26	
Unit Cost	8.116	7.969	-1.81

Unit Cost History



Item	Date	BY 2008 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Dec 2008	26.032	8.116	27.889	9.748
APB as of January 2006	N/A	N/A	N/A	N/A	N/A
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	N/A	N/A	N/A	N/A	N/A
Current APB	Dec 2008	26.032	8.116	27.889	9.748
Prior Annual SAR	N/A	N/A	N/A	N/A	N/A
Current Estimate	Dec 2009	25.359	7.969	26.676	9.177

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	
27.889	-0.324	0.041	-0.016	0.000	-1.203	0.000	0.289	-1.213	26.676

Current SAR Baseline to Current Estimate (TY \$M)									
Initial APUC Development Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
9.748	-0.396	-0.106	-0.023	0.000	-0.458	0.000	0.412	-0.571	9.177

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	Jun 2008	N/A	Jul 2008
Milestone C	N/A	Nov 2012	N/A	Feb 2013
IOC	N/A	Sep 2014	N/A	Dec 2014
Total Cost (TY \$M)	N/A	1031.9	N/A	987.0
Total Quantity	N/A	37	N/A	37
PAUC	N/A	27.889	N/A	26.676

Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	781.4	243.7	6.8	1031.9
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	-1.6	-10.3	-0.1	-12.0
Quantity	-5.5	+7.0	--	+1.5
Schedule	--	-0.6	--	-0.6
Engineering	--	--	--	--
Estimating	-32.7	-11.9	+0.1	-44.5
Other	--	--	--	--
Support	--	+10.7	--	+10.7
Subtotal	-39.8	-5.1	--	-44.9
Total Changes	-39.8	-5.1	--	-44.9
Current Estimate	741.6	238.6	6.8	987.0

Summary BY 2008 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	753.7	202.9	6.6	963.2
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	--	--	--	--
Quantity	-5.1	+6.0	--	+0.9
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-24.2	-10.9	+0.1	-35.0
Other	--	--	--	--
Support	--	+9.2	--	+9.2
Subtotal	-29.3	+4.3	+0.1	-24.9
Total Changes	-29.3	+4.3	+0.1	-24.9
Current Estimate	724.4	207.2	6.7	938.3

Initial SAR - Above variances (if any) reflect changes since the SAR Baseline/APB.

SAR Baseline Reference: Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated December 19, 2008

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-1.6
Quantity variance resulting from a decrease of 1 system from 12 to 11. (Quantity)	-5.1	-5.5
Adjustment for current and prior escalation. (Estimating)	-8.4	-8.2
Revised estimate of the development program to reflect a contract start date that occurred later than initially planned. (Estimating)	-21.9	-22.5
Miscellaneous Congressional and DoD budget adjustments. (Estimating)	-7.4	-7.6
Adjustment to spread prior year funding across actual years because prior year funding was previously aggregated in FY 2007. (Estimating)	+8.4	+0.1
Increased estimate due to better definition of initial installation effort. (Estimating)	+5.1	+5.5
RDT&E Subtotal	-29.3	-39.8

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-10.3
Quantity variance resulting from an increase of 1 system from 25 to 26. (Quantity)	+6.0	+7.0
Acceleration of procurement buy profile. (Schedule)	0.0	-0.6
Revised estimate due to better definition of hardware components. (Estimating)	-10.9	-11.9
Increase in Other Support due to revised estimate of personnel support requirements. (Support)	+12.1	+14.0
Decrease in Initial Spares. (Support)	-2.9	-3.3
Procurement Subtotal	+4.3	-5.1

MILCON	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-0.1
Adjustment for current and prior escalation. (Estimating)	+0.1	+0.1
MILCON Subtotal	+0.1	0.0

Contracts

Contract Identification

Appropriation: RDT&E
Contract Name: JPALS Development Contract
Contractor: Raytheon Company
Contractor Location: Fullerton, CA 92833-2200
Contract Number: N00019-08-C-0034
Contract Type: Cost Plus Award Fee (CPAF), Cost Plus Incentive Fee (CPIF)
Award Date: September 15, 2008
Definitization Date: September 15, 2008

Contract Price								
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)		
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager	
232.8	N/A	12	234.9	N/A	12	238.6	237.7	

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 (1/22/2010)	-2.1	-2.9
Previous Cumulative Variances	--	--
Net Change	-2.1	-2.9

Cost and Schedule Variance Explanations

General Contract Variance Explanation

The unfavorable net change in the cost variance is a result of two major drivers: underestimation of personnel support requirements and unrealized anticipated reuse of civil landing system solutions.

The unfavorable net change in the schedule variance is a result of three major drivers: late completion of a hardware trade study, more work than planned in creating system requirements, and delays in algorithm validation activity.

Notes

The Integrated Baseline Review (IBR) was conducted on April 24, 2009.

The Initial Contract Price increased from \$232.8M to \$234.9M due to a contract modification for the Aircraft Integration Guide and Use Case Analysis.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	11	0.00%
Production	0	0	26	0.00%
Total Program Quantity Delivered	0	0	37	0.00%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	987.0	Years Appropriated	10
Expended to Date	275.3	Percent Years Appropriated	55.56%
Percent Expended	27.89%	Appropriated to Date	433.6
Total Funding Years	18	Percent Appropriated	43.93%

Operating and Support Cost

Assumptions and Ground Rules

1. 20 year life after introduction to the fleet
2. 4,000 hours per year operational tempo
3. Organizational to Depot maintenance concept based on Performance Based Logistics
4. No change to current manpower
5. Total of 29 retrofit ship and seabased ashore units (does not include Operating and Support (O&S) for Shipbuilding and Conversion (SCN) funded ships)

Cost Estimate Reference:

None

Sustainment Strategy:

None

Antecedent Information:

None

Unitized O&S Costs BY2008 \$M			
Cost Element	JPALS		No Antecedent System (Antecedent)
	Average Annual Cost Per System		
Mission Pay & Allowance	--	--	--
Unit Level Consumption	--	--	--
Intermediate Maintenance	--	--	--
Depot Maintenance	0.360	--	--
Contractor Support	--	--	--
Sustaining Support	0.230	--	--
Indirect	--	--	--
Other	0.010	--	--
Total	0.600		--

Unitized Cost Comments:

None

Item	Total O&S Cost \$M			
	JPALS			No Antecedent System (Antecedent)
	Current Development APB Objective/Threshold	Current Estimate		
Base Year	338.6	372.5	347.0	N/A
Then Year	520.6	N/A	504.6	N/A

Total O&S Cost Comment

The OSD Cost Assessment and Program Evaluation (CAPE) organization conducted an estimate in support of the Milestone B decision on June 27, 2008.

Base Year values remained constant, but timephasing was adjusted resulting in lower Then Year values.

O&S value is based on 29 fielded Other, Procurement Navy (OPN) systems. O&S covers 20 year life cycle at an average of 4,000 operating hours per system per year. O&S costs span the years 2014 to 2038.

There is no antecedent system.

Disposal Estimate Details

Date of Estimate:

Source of Estimate:

Disposal/Demilitarization Total Cost (BY 2008 \$M):