



Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-205



Integrated Air and Missile Defense (IAMD)

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

Army Integrated Air & Missile Defense (Army IAMD)

DoD Component

Army

Responsible Office

Mr. Robert L. Thomas
Building 5250 Martin Road
Redstone Arsenal, AL 35898-8000

robert.thomas11@us.army.mil

Phone: 256-313-3576

Fax: 256-313-3460

DSN Phone: 897-3576

DSN Fax: 897-3460

Date

Assigned: June 10, 2007

References

SAR Baseline (Development Estimate)

FY 2011 President's Budget dated February 1, 2010

Mission and Description

The mission of the Army IAMD Project Office is to define, develop, acquire, field and sustain the Army's portion of the Joint Integrated Air And Missile Defense (IAMD) System of Systems capability to be deployed as integrated components in Army, Joint, Interagency, Intergovernmental and Multi-National (JIIM) net-centric architectures. Additionally, the Army IAMD Project Office will develop, acquire, field and sustain the Army IAMD Battle Command System (IBCS) component of the architecture and integrate externally developed sensors and shooters to provide an effective IAMD capability.

The Army IAMD program will allow transformation to a network-centric system of systems capability (also referred to as "Plug and Fight") that integrates all AMD sensors, weapons, and command and control. The Army IAMD program will integrate the Phased Array Tracking to Intercept of Target (PATRIOT), Surface Launched Advanced Medium Range Air-To-Air Missile (SLAMRAAM), Improved Sentinel, and Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS) components to support the engagement of air breathing targets, Cruise Missiles, Unmanned Aerial Vehicles (UAVs), and Tactical Ballistic Missiles (TBMs) threat. Each sensor and weapon platform will have a "Plug and Fight" interface module, which supplies distributed battle management functionality to enable network-centric operations.

The common battle command element (IBCS) provides the functional capabilities to control and manage the IAMD sensors and weapons via the Integrated Fire Control (IFC) Network capability for fire control connectivity and enabling distributed operations. Central to the Army IAMD program is the IBCS Development Program consisting of the IBCS Major End Items (MEI); the Engagement Operations Center and Plug and Fight Modules. The development of these MEIs is essential to achieving Army transformation imperatives, connectivity to the Global Interface Grid (GIG) for Joint Operations, obtaining a Joint Single Integrated Air Picture (SIAP), establishing Engage on Network capabilities, enabling Net-Ready operations for Army AMD components, and providing a common IAMD Battle Management capability. This innovative approach at modernization will reduce manpower requirements, operation and support costs, and enhance training.

Executive Summary

This is the initial SAR submission for the Army Integrated Air and Missile Defense (IAMD) Project Office.

The Army established an Interim Project Office on November 21, 2005. The purpose was establishment of the initial Army IAMD Program. The program was presented to an Army Systems Acquisition Review Council (ASARC) in February 2006.

The Army IAMD ASARC was held on February 9, 2006. As a result of this ASARC, the Army Acquisition Executive (AAE) issued an Establishment Memorandum on March 9, 2006, formally establishing the Army IAMD Project Office. The Army IAMD Project Office was officially chartered on May 8, 2006.

An Acquisition Decision Memorandum (ADM) on the Army IAMD Acquisition Strategy (AS) was issued on November 9, 2006, stating that the Army IAMD Program would utilize a tailored acquisition approach including a competitive source selection for the award of an Army IAMD Battle Command System (IBCS) technology development contract to support Preliminary Design Review (PDR), with an option for IBCS System Development and Demonstration (now Engineering and Manufacturing Development) that may be exercised following the Milestone B (MS B) Defense Acquisition Board (DAB).

The Army IAMD System of Systems Increment 2 Capabilities Development Document (CDD) was approved by the Army Requirements Oversight Council (AROC) on December 13, 2006.

The Office of the Secretary of Defense (OSD) Overarching Integrated Product Team (OIPT) approved the Army IAMD Acquisition Strategy on February 27, 2007.

The Director of Defense Research and Engineering (DDRE) issued concerns on the Army IAMD Acquisition Strategy on April 13, 2007 addressing capability delivery, Single Integrated Air Picture (SIAP) funding, and the DDRE's recommendation that the Army award two or more initial contracts for IBCS and plan for a rolling down select following Preliminary Interim Design Review or later. This direction resulted in the Army IAMD Project Office revising the Army IAMD Acquisition Strategy to incorporate the dual contractor competitive prototyping strategy.

The Program Executive Office (PEO) Missiles and Space (MS) approved the revised dual contractor competitive prototyping approach on August 1, 2007.

The revised Army IAMD Acquisition Strategy incorporating the dual contractor competitive prototyping approach was approved by the OSD Milestone Decision Authority (MDA) on December 22, 2007.

The Army IAMD Project Office released the Army IAMD IBCS Request for Proposal (RFP) on February 20, 2008.

IBCS proposals were received on April 7, 2008 and contract awards were made to two competing teams (Team Northrop and Team Raytheon) on September 23, 2008, to complete the Technology Development Phase of the program.

The two competing teams presented IBCS System Functional Laydown (SFLs) reviews on December 2 and 16, 2008.

The two competing teams conducted prototype demonstrations on April 16-17, and April 21-22, 2009.

The two competing teams presented IBCS Preliminary Design Reviews (PDR) on May 19-20 and May 27-28, 2009.

An overarching Army IAMD PDR was conducted July 21-23, 2009.

The Army IAMD Program conducted a walk-up to the MS B DAB in the first quarter of FY10. Significant events associated with the MS B DAB walk-up included an Army IAMD Overarching Integrated Product Team (OIPT) meeting on November 13, 2009, an OSD Army IAMD OIPT on December 4, 2009, an Army IAMD ASARC on December 9, 2009, Joint Requirements Oversight Council (JROC) approval of the Army IAMD System of Systems Capability Development Document (CDD) on

December 11, 2009, and a MS B DAB on December 15, 2009.

The Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)) issued an ADM on December 23, 2009, approving MS B for the Army IAMD Increment 2 Program and designating the program as an Acquisition Category (ACAT) 1D program. The ADM authorized expenditures up to \$95M to award an Engineering Manufacturing and Development (EMD) contract until an APB is approved.

The USD(AT&L) on December 23, 2009, certified the program in accordance with Title 10 USC, section 2366b. Three elements (Affordability, Funding, and Preliminary Design Review (PDR)) were waived. The first two waivers were necessary because the FY2009 President's Budget did not include a Future Years Defense Program (FYDP). The third waiver was required because the competitive environment established for this program precluded completion of the PDR process until after MS B and down-select to the winning contractor. Therefore it was not possible to certify components of the 2366b certification that specifically related to the FYDP submitted during the fiscal year in which the certification was made, nor was it possible to certify the PDR assessment provision. As required by subsection Title 10, USC 2366(d)(2), letters were submitted to the Congressional Defense Committees in January 2010 regarding the waivers, the determination, and the reasons for the determination. With the submission of the President's Budget FY 2011 and associated FY 2011 FYDP, the two waivers related to the FYDP will no longer be necessary.

The Army finalized the IBCS Contract Down-Select process on December 30, 2009, by awarding an EMD Contract Option to develop the IBCS to Northrop Grumman Corporation.

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

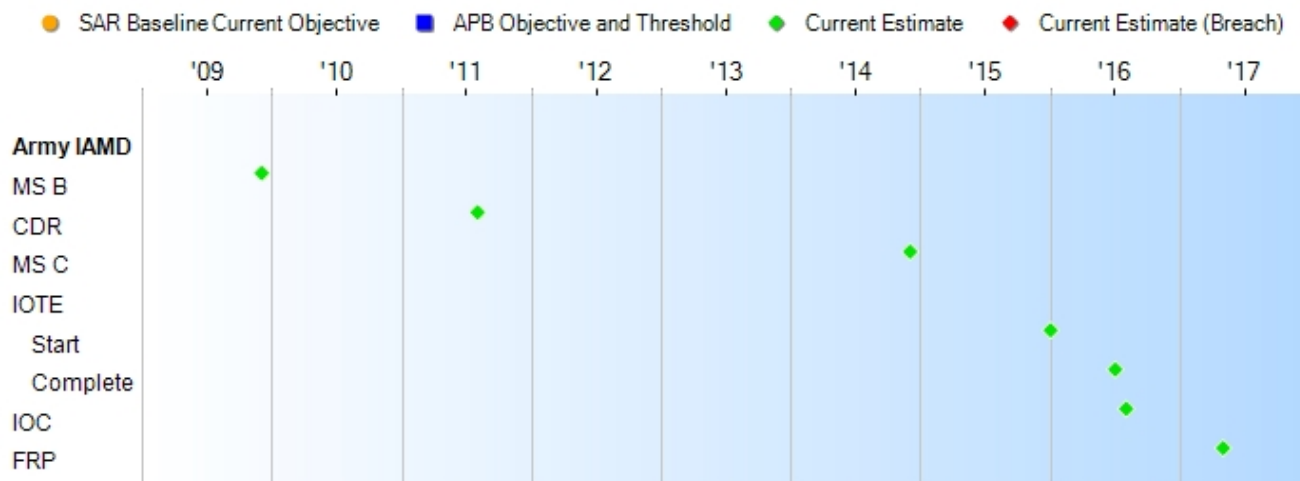
Current UCR Baseline

PAUC	None
APUC	None

Original UCR Baseline

PAUC	None
APUC	None

Schedule



Schedule Events				
Events	SAR Baseline Development Estimate	Current APB Objective/Threshold		Current Estimate
MS B	Dec 2009	N/A	N/A	Dec 2009
CDR	Aug 2011	N/A	N/A	Aug 2011
MS C	Dec 2014	N/A	N/A	Dec 2014
IOTE				
Start	Jan 2016	N/A	N/A	Jan 2016
Complete	Jul 2016	N/A	N/A	Jul 2016
IOC	Aug 2016	N/A	N/A	Aug 2016
FRP	May 2017	N/A	N/A	May 2017

Change Explanations

None

Acronyms and Abbreviations

- CDR - Critical Design Review
- FRP - Full Rate Production
- IOC - Initial Operational Capability
- IOTE - Initial Operational Test and Evaluation
- MS B - Milestone B
- MS C - Milestone C

Performance

Performance Characteristics				
SAR Baseline Development Estimate	Current APB Objective/Threshold		Demonstrated Performance	Current Estimate
Net Ready				
The Army IAMD SoS 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 the following: DISR mandated GIG IT standards and profiles identified in the TV-1 •DISR mandated GIG KIPs identified in the KIP declaration table NCOW RM Enterprise Services •Information assurance requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA •Operationally effective information exchanges •Mission critical performance and information assurance attributes, data correctness, data availability, and consistent data processing specified in the applicable joint- and system-integrated architecture views.	N/A	N/A	TBD	The Army IAMD SoS 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 the following: • DISR mandated GIG IT standards and profiles identified in the TV-1 •DISR mandated GIG KIPs identified in the KIP declaration table •DIEA Enterprise Services •Information assurance requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA •Operationally effective information exchanges •Mission critical performance and information assurance attributes, data correctness, data availability, and consistent data processing specified in the applicable joint- and system-integrated architecture views.
Integrated Defense Effectiveness				
To support attainment of a commander's defense effectiveness objectives, which would normally range from 0.50% to 0.99%, the Army IAMD SoS shall provide flexible interceptor selection and firing doctrine within the Task Force. The Army IAMD SoS-integrated defenses shall enable defeat of non-ballistic and ballistic platforms at times and locations not otherwise available to the commander without an integrated operations capability by exploiting fused organic and non-organic sensor data to execute engagements up to the operationally	N/A	N/A	TBD	To support attainment of a commander's defense effectiveness objectives, which would normally range from 0.50% to 0.99%, the Army IAMD SoS shall provide flexible interceptor selection and firing doctrine within the Task Force. The Army IAMD SoS-integrated defenses shall enable defeat of non-ballistic and ballistic platforms at times and locations not otherwise available to the commander without an integrated operations capability by exploiting fused organic and non-organic sensor data to execute engagements up to the operationally

effective range of selected missile kinematics. The Army IAMD SoS shall be capable of allowing greater defense effectiveness for high-priority assets while increasing defense effectiveness to full 360-degree coverage against attacking non-ballistic threats. The Army IAMD SoS defense effectiveness levels shall not degrade and be equal to or greater than the effectiveness levels of fielded TBM and CM/ABT defense systems.				effective range of selected missile kinematics. The Army IAMD SoS shall be capable of allowing greater defense effectiveness for high-priority assets while increasing defense effectiveness to full 360-degree coverage against attacking non-ballistic threats. The Army IAMD SoS defense effectiveness levels shall not degrade and be equal to or greater than the effectiveness levels of fielded TBM and CM/ABT defense systems.
Common Command and Control				
The Army IAMD SoS common C2 components (Battalion and below) shall incorporate common functionality that includes: defense planning, defense design, warfighter-machine interface, battle monitor and control, network interface and management, track management, engagement planning, engagement decision, engagement monitoring, and staff functions. The Army IAMD SoS shall provide backward compatibility to enable integration and common functionality (as defined above) of a current force Patriot Battery/SLAMRAAM Platoon with the Increment 2 equipped Task Force.	N/A	N/A	TBD	The Army IAMD SoS common C2 components (Battalion and below) shall incorporate common functionality that includes: defense planning, defense design, warfighter-machine interface, battle monitor and control, network interface and management, track management, engagement planning, engagement decision, engagement monitoring, and staff functions. The Army IAMD SoS shall provide backward compatibility to enable integration and common functionality (as defined above) of a current force Patriot Battery/SLAMRAAM Platoon with the Increment 2 equipped Task Force.
Material Availability				
The Army IAMD SoS C2 shall achieve an Operational Availability (Ao) of at least 95%.	N/A	N/A	TBD	The Army IAMD SoS C2 shall achieve an Operational Availability (Ao) of at least 95%.
Force Protection and Survivability				
The Army IAMD SoS common C2 equipment shall be designed to be operated by Soldiers wearing body armor and equipped with appropriate weapons; shall have situational awareness and understanding commensurate with the supported force; will report the position and ID of all Army IAMD SoS system into the COP and BFT nets; shall be operable by Soldiers in MOPP 4; and shall survive decontamination procedures in such a manner that it can quickly return (within 30 minutes) to full operational capability.	N/A	N/A	TBD	The Army IAMD SoS common C2 equipment shall be designed to be operated by Soldiers wearing body armor and equipped with appropriate weapons; shall have situational awareness and understanding commensurate with the supported force; will report the position and ID of all Army IAMD SoS system into the COP and BFT nets; shall be operable by Soldiers in MOPP 4; and shall survive decontamination procedures in such a manner that it can quickly return (within 30 minutes) to full operational capability.

All Army IAMD SoS common C2 vehicle cabs shall be capable of adding up-armor protection sufficient to repel enemy small arms as developed by the PM, FMTV. Manned rigid wall shelters incorporated into the Army IAMD SoS shall provide an active overpressure system to prevent contamination during a CBRNE event that is sustainable through decontamination.

All Army IAMD SoS common C2 vehicle cabs shall be capable of adding up-armor protection sufficient to repel enemy small arms as developed by the PM, FMTV. Manned rigid wall shelters incorporated into the Army IAMD SoS shall provide an active overpressure system to prevent contamination during a CBRNE event that is sustainable through decontamination.

Change Explanations

None

Notes

Acronyms and Abbreviations

ABT - Air Breathing Threat
 ATO - Approval to Operate
 BFT - Blue Force Tracking
 C2 - Command and Control
 CBRNE - Chemical, Biological, Radiological, Nuclear and High Yield Explosives
 CM - Cruise Missile
 COP - Common Operating Picture
 DAA - Designated Approval Authority
 DIEA - Defense Information Enterprise Architecture (superseded NCOW RM)
 DISR - DoD Information Technology Standards and Profile Registry
 FMTV - Family of Medium Tactical Vehicles
 GIG IT - Global Information Grid Information Technology
 ID - Identification
 KIP - Key Information Profile
 MOPP - Mission Oriented Protective Posture
 PM - Product Manager
 SLAMRAAM - Surface-Launched Advanced Medium Range Air-to-Air Missile
 SoS - System of Systems
 TBM - Tactical Ballistic Missile
 TV - Technical Standards Profile

Track to Budget

RDT&E

Appn	BA	PE
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Army 2040 04 0603327A

Project	Name
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S34 AMD System of Systems
Engineering and Integration

Notes: AIAMD funding transferred to EMD PE in FY11.

Army 2040 05 0605457A

Project	Name
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S40 Army Integrated Air and Missile
Defense

Notes: AIAMD Project Office EMD program funding begins in FY11.

Procurement

Appn	BA	PE
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Army 2035 02 5075000BZ

Line Item	Name
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IAMD Battle Command System

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY \$M			BY 2009 \$M	TY \$M		
	SAR Baseline Development Estimate	Current APB Objective/Threshold		Current Estimate	SAR Baseline Development Estimate	Current APB Objective	Current Estimate
RDT&E	1540.6	--	--	1540.6	1627.5	--	1627.5
Procurement	3316.0	--	--	3316.0	4164.1	--	4164.1
Flyaway	--	--	--	2420.4	--	--	3030.6
Recurring	--	--	--	2370.4	--	--	2970.9
Non Recurring	--	--	--	50.0	--	--	59.7
Support	--	--	--	895.6	--	--	1133.5
Other Support	--	--	--	734.4	--	--	931.5
Initial Spares	--	--	--	161.2	--	--	202.0
MILCON	0.0	--	--	0.0	0.0	--	0.0
Acq O&M	0.0	--	--	0.0	0.0	--	0.0
Total	4856.6	--	--	4856.6	5791.6	--	5791.6

Cost Notes

Total Quantity			
Quantity	SAR Baseline Development Estimate	Current APB	Current Estimate
RDT&E	11	0	11
Procurement	285	0	285
Total	296	0	296

Quantity Notes

The Army IAMD Unit of Measure (UOM) - 11 Fully Configured Research Development Test and Evaluation units and 285 Army IAMD Battle Command Systems (IBCSs) Procurement Quantities which enable System of Systems operation of Army Air and Missile Defense Units as defined in the Army IAMD Increment 2 Capabilities Development Document.

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	222.7	166.1	251.1	271.5	251.6	228.6	129.0	106.9	1627.5
Procurement	0.0	0.0	0.0	0.0	0.0	25.0	101.7	4037.4	4164.1
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2011 Total	222.7	166.1	251.1	271.5	251.6	253.6	230.7	4144.3	5791.6
	--	--	--	--	--	--	--	--	--

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	0	13	272	285
PB 2011 Total	11	0	0	0	0	0	0	13	272	296
	--	--	--	--	--	--	--	--	--	--

Cost and Funding

Annual Funding By Appropriation

Annual Funding							
2040 RDT&E Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2006	--	--	--	--	--	--	23.7
2007	--	--	--	--	--	--	36.3
2008	--	--	--	--	--	--	48.0
2009	--	--	--	--	--	--	114.7
2010	--	--	--	--	--	--	166.1
2011	--	--	--	--	--	--	251.1
2012	--	--	--	--	--	--	271.5
2013	--	--	--	--	--	--	251.6
2014	--	--	--	--	--	--	228.6
2015	--	--	--	--	--	--	129.0
2016	--	--	--	--	--	--	106.9
Subtotal	11	--	--	--	--	--	1627.5

Annual Funding 2040 RDT&E Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	BY 2009 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2006	--	--	--	--	--	--	24.8
2007	--	--	--	--	--	--	37.1
2008	--	--	--	--	--	--	48.1
2009	--	--	--	--	--	--	113.6
2010	--	--	--	--	--	--	162.7
2011	--	--	--	--	--	--	242.0
2012	--	--	--	--	--	--	257.4
2013	--	--	--	--	--	--	234.5
2014	--	--	--	--	--	--	209.5
2015	--	--	--	--	--	--	116.2
2016	--	--	--	--	--	--	94.7
Subtotal	11	--	--	--	--	--	1540.6

Annual Funding								
2035 Procurement Other Procurement, Army								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2014	--	25.0	--	--	25.0	--	25.0	
2015	13	60.2	--	11.6	71.8	29.9	101.7	
2016	14	112.0	--	11.8	123.8	55.1	178.9	
2017	22	183.0	--	12.0	195.0	77.2	272.2	
2018	32	281.5	--	12.5	294.0	92.9	386.9	
2019	32	276.8	--	--	276.8	92.9	369.7	
2020	31	277.1	--	--	277.1	89.2	366.3	
2021	25	259.1	--	--	259.1	72.0	331.1	
2022	21	228.3	--	--	228.3	68.7	297.0	
2023	20	227.5	--	--	227.5	69.7	297.2	
2024	20	227.4	--	--	227.4	71.0	298.4	
2025	10	138.1	--	--	138.1	56.4	194.5	
2026	9	130.3	--	--	130.3	66.9	197.2	
2027	9	132.4	--	--	132.4	68.5	200.9	
2028	9	134.9	--	--	134.9	70.1	205.0	
2029	9	137.4	--	--	137.4	71.5	208.9	
2030	9	139.9	--	--	139.9	73.0	212.9	
2031	--	--	--	11.8	11.8	8.5	20.3	
Subtotal	285	2970.9	--	59.7	3030.6	1133.5	4164.1	

Annual Funding								
2035 Procurement Other Procurement, Army								
Fiscal Year	Quantity	BY 2009 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
2014	--	22.8	--	--	22.8	--	22.8	
2015	13	54.0	--	10.4	64.4	26.8	91.2	
2016	14	98.7	--	10.4	109.1	48.6	157.7	
2017	22	158.6	--	10.4	169.0	67.0	236.0	
2018	32	240.0	--	10.7	250.7	79.1	329.8	
2019	32	232.0	--	--	232.0	77.9	309.9	
2020	31	228.4	--	--	228.4	73.5	301.9	
2021	25	210.0	--	--	210.0	58.3	268.3	
2022	21	181.9	--	--	181.9	54.8	236.7	
2023	20	178.2	--	--	178.2	54.7	232.9	
2024	20	175.2	--	--	175.2	54.7	229.9	
2025	10	104.6	--	--	104.6	42.7	147.3	
2026	9	97.1	--	--	97.1	49.8	146.9	
2027	9	97.0	--	--	97.0	50.1	147.1	
2028	9	97.2	--	--	97.2	50.4	147.6	
2029	9	97.3	--	--	97.3	50.6	147.9	
2030	9	97.4	--	--	97.4	50.8	148.2	
2031	--	--	--	8.1	8.1	5.8	13.9	
Subtotal	285	2370.4	--	50.0	2420.4	895.6	3316.0	

Cost Quantity Information		
2035 Procurement Other Procurement, Army		
Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned With Quantity) BY 2009 \$M
2014	--	--
2015	13	76.8
2016	14	98.7
2017	22	158.6
2018	32	240.0
2019	32	232.0
2020	31	228.4
2021	25	210.0
2022	21	181.9
2023	20	178.2
2024	20	175.2
2025	10	104.6
2026	9	97.1
2027	9	97.0
2028	9	97.2
2029	9	97.3
2030	9	97.4
2031	--	--
Subtotal	285	2370.4

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	12/23/2009	12/23/2009
Approved Quantity	27	27
Reference	ADM dated Dec 23 2009	ADM dated Dec 23 2009
Start Year	2015	2015
End Year	2017	2017

Foreign Military Sales

None

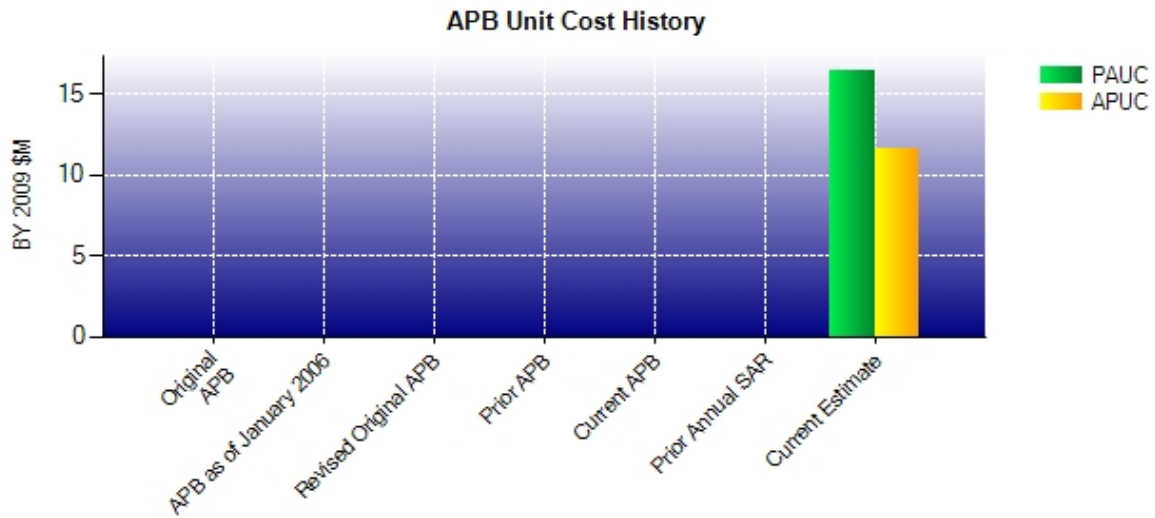
Nuclear Costs

Unit Cost

Unit Cost Report

Item	BY 2009 \$M	BY 2009 \$M	% Change
	Current UCR Baseline	Current Estimate (Dec 2009 SAR)	
Program Acquisition Unit Cost			
Cost	--	4856.6	
Quantity	--	296	
Item	--	16.407	--
Average Procurement Unit Cost			
Cost	--	3316.0	
Quantity	--	285	
Unit Cost	--	11.635	--

Unit Cost History



Item	Date	BY 2009 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	N/A	N/A	N/A	N/A	N/A
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	N/A	N/A	N/A	N/A	N/A
Prior Annual SAR	N/A	N/A	N/A	N/A	N/A
Current Estimate	Dec 2009	16.407	11.635	19.566	14.611

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	
19.566	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19.566

Current SAR Baseline to Current Estimate (TY \$M)									
Initial APUC Development Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
14.611	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	14.611

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	Dec 2009	N/A	Dec 2009
Milestone C	N/A	Dec 2014	N/A	Dec 2014
IOC	N/A	Aug 2016	N/A	Aug 2016
Total Cost (TY \$M)	N/A	5780.6	N/A	5791.6
Total Quantity	N/A	294	N/A	296
PAUC	N/A	19.662	N/A	19.566

Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	1627.5	4164.1	--	5791.6
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Total Changes	--	--	--	--
Current Estimate	1627.5	4164.1	--	5791.6

Summary BY 2009 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	1540.6	3316.0	--	4856.6
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Total Changes	--	--	--	--
Current Estimate	1540.6	3316.0	--	4856.6

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

SAR Baseline Reference: FY 2011 President's Budget dated February 1, 2010

Cost Variance Notes

Contracts

General Notes

The Army Integrated Air and Missile Defense Battle Command System contract awarded December 30, 2009, is an option that was exercised from a contract signed with Northrop Grumman in September 2008. Only cost data from the exercise of this option, signed on December 30, 2009, will be reported in future AIAMD SAR submissions.

No contractor performance data is available for this SAR submission due to a December 2009 award.

This is the first time this contract is reporting.

Contract Identification

Appropriation: RDT&E
Contract Name: IAMD Battle Command System (IBCS) Development Program
Contractor: Northrop Grumman Space & Mission Systems Corp.
Contractor Location: Huntsville, AL 35805
Contract Number: W31P4Q-08-C-0418
Contract Type: Cost Plus Incentive Fee (CPIF)
Award Date: December 30, 2009
Definitization Date: December 30, 2009

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
375.0	431.2	11	375.0	431.2	11	431.2	431.2

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (CPIF) contract.

Notes

This is the first time this contract is being reported.

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	285	0.00%
Total Program Quantity Delivered	0	0	296	0.00%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	5791.6	Years Appropriated	5
Expended to Date	222.7	Percent Years Appropriated	19.23%
Percent Expended	3.85%	Appropriated to Date	388.8
Total Funding Years	26	Percent Appropriated	6.71%

The \$222.7M expenditures to date represent the costs associated with developing Army IAMD Increment 2 technologies and processes that allow the program to proceed into the Engineering Manufacturing and Development phase of the program.

Operating and Support Cost

Assumptions and Ground Rules

There is no antecedent system.

Costs are from the CAPE Independent Cost Estimate, dated December 2009.

Estimate is based on approved Army IAMD Cost Analysis Requirements Description, Version 3.5, October 6, 2009.

There are 285 procurement units.

Military Personnel costs for the Composite Battalion will be contained in the Army IAMD Program Office Estimate.

The life of the equipment is 20 years.

Overhaul will occur seven years after fielding.

Technology refresh will occur every five years.

Fielding of IAMD Battle Command System (IBCS) and associated equipment will not increase the manpower in the Composite Battalions.

Contractor Field Service Representatives (CFSR) will be required during Interim Contractor Logistics Support which will be two years after Initial Operational Capability (IOC).

Demilitarization will occur after 20 years of use.

Cost Estimate Reference:

None

Sustainment Strategy:

None

Antecedent Information:

None

Unitized O&S Costs BY2009 \$K			
Cost Element	Army IAMD		No Antecedent System (Antecedent) NA
	Average Annual Cost Per Unit		
Mission Pay & Allowance	0.000		--
Unit Level Consumption	0.005		--
Intermediate Maintenance	0.143		--
Depot Maintenance	0.004		--
Contractor Support	0.000		--
Sustaining Support	0.040		--
Indirect	0.000		--
Other	0.063		--
Total	0.255		--

Unitized Cost Comments:

None

Item	Total O&S Cost \$M			
	Army IAMD			No Antecedent System (Antecedent)
	APB Objective/Threshold		Current Estimate	
Base Year	N/A	N/A	1450.9	N/A
Then Year	N/A	N/A	2374.3	N/A

Total O&S Cost Comment

None

Disposal Estimate Details

Date of Estimate:

Source of Estimate:

Disposal/Demilitarization Total Cost (BY 2009 \$M):