

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

May 2009

BUDGET ACTIVITY		PE NUMBER AND TITLE			
4 - Advanced Component Development and Prototypes		0603327A - Air and Missile Defense Systems Engineering			
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	155669	118816	209531	Continuing	Continuing
S25 ARMY SIAP OPERATIONAL INTEGRATION	7654	4143			11797
S32 JOINT SIAP SYSTEM ENGINEERING	24303				24303
S34 AMD SYSTEM OF SYSTEMS ENGINEERING AND INTEGRATION	123712	114673	209531	Continuing	Continuing

A. Mission Description and Budget Item Justification: This program element provides funding for the integration of Army and Joint Integrated Air and Missile Defense (IAMD). On 9 February 2006 the Army Systems Acquisition Review Council (ASARC) designated the IAMD program a Pre-Major Defense Acquisition Program (MDAP) and approved the stand-up of the IAMD Project Office (PO). Program Executive Office Missiles and Space (PEO MS) formally stood up the IAMD PO on 9 May 2006.

The mission of the IAMD PO is to: Define, develop, acquire, field and sustain the Army's portion of the Joint IAMD system of systems capability to be deployed as integrated components in Army, Joint, interagency, and multi-national net-centric architectures. Develop, acquire, field and sustain the IAMD common battle command component of the architecture and integrate externally developed sensors and shooters to provide an effective IAMD capability. The IAMD mission is derived from analysis of the Joint Air and Missile Defense (AMD) imperatives and the four mission sets that Army AMD performs. These mission sets are: Provide Air and Missile Defense, Contribute to AMD Situational Awareness/Situational Understanding, Contribute to Airspace Management, and Integrate/contribute to operational protection. The IAMD PO is responsible for the development of an IAMD Architecture comprised of components developed within the Project Office as well as by other PEO MS Project Offices (Lower Tier Project Office (LTPO) and Cruise Missile Defense Systems (CMDS), PEO Command, Control and Communications - Tactical (C3T) Project Offices (Air and Missile Defense Command and Control Systems (AMDCCS), and Joint organizations (e.g. Single Integrated Air Picture (SIAP) Joint Program Office (JPO)). As part of this responsibility, the IAMD PO has responsibility for performing the overarching IAMD System of Systems Architecture Systems Engineering. While the IAMD Architecture is complex, it is itself part of a larger Joint System of Systems architecture. The IAMD program provides the Army's part of this larger Joint IAMD Architecture.

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BUDGET ACTIVITY

PE NUMBER AND TITLE

4 - Advanced Component Development and Prototypes

0603327A - Air and Missile Defense Systems Engineering

B. Program Change Summary

	FY 2008	FY 2009	FY 2010
Previous President's Budget (FY 2009)	170383	116410	81057
Current BES/President's Budget (FY 2010)	155669	118816	209531
Total Adjustments	-14714	2406	128474
Congressional Program Reductions		-394	
Congressional Rescissions			
Congressional Increases		2800	
Reprogrammings	-9947		
SBIR/STTR Transfer	-4767		
Adjustments to Budget Years			128474

Change Summary Explanation - Funding:

FY 2010 (+\$128,474) To provide for the continuation of the Integrated Air and Missile Defense (IAMD) Program.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

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BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes		PE NUMBER AND TITLE 0603327A - Air and Missile Defense Systems Engineering			PROJECT S25
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
S25 ARMY SIAP OPERATIONAL INTEGRATION	7654	4143			11797

A. Mission Description and Budget Item Justification: This project funds the coordination of the Single Integrated Air Picture (SIAP) requirements with the operational community: verification that operational requirements exist to support technical specifications and any subsequent changes; integration and coordination of Army SIAP operational requirements with the user community and multi-service sponsor(s); provide support to development and revision of SIAP acquisition strategy with respect to Army operational requirements. These products/tasks are required to ensure a specific, focused effort that integrates SIAP with weapons, sensors, Battle Management/Command, Control, Communications, and Computers (BMC4) and concepts of operations.

<u>Accomplishments/Planned Program:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Continue efforts to coordinate Integrated Air and Missile Defense (IAMD) analyses, planning, tools, and requirements for Single Integrated Air Picture (SIAP) development. Evaluate IAMD/SIAP-related acquisition strategy, operational requirements, engineering tools, and current and evolving doctrine. Assess airspace awareness, combat identification, integrated fire control technologies, and risk mitigation approaches.	2436	2477	
Includes FY 2007 Congressional Adds for Area Security and Defense Systems Research, Command Responder, Joint Awareness Warfighter - Space (JAWS), and Multi View Integrated Engineering Environment Pilot. Includes FY08 Congressional adds for Army Extended Range Attack Missile (AERAM) Turbine Engine Development, Advance Extended Range Attack Missile, and Border Security and Defense System Research.	5218	1550	
Small Business Innovative Research/Small Business Technology Transfer Program		116	
Total	7654	4143	

<u>B. Other Program Funding Summary</u>	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
PE 643327, Project S24, Army SIAP Systems Engineering				Continuing	Continuing
PE 643327, Project S26, Army SIAP Implementation				Continuing	Continuing
PE 643327, Project S32, Joint SIAP Systems Engineering	24994			Continuing	Continuing

Comment:

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY

4 - Advanced Component Development and Prototypes

PE NUMBER AND TITLE

0603327A - Air and Missile Defense Systems Engineering

PROJECT

S25

C. Acquisition Strategy Not applicable for this item.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
4 - Advanced Component Development and Prototypes			0603327A - Air and Missile Defense Systems Engineering							S25		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Execute Congressional adds	Various	Various	36662	5218		1550					43430	
Subtotal:			36662	5218		1550					43430	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Government support & support contracts	MIPRs, 1095s, CPFF	OGAs, Inhouse, Contact spt.	13750	2436	1-4Q	2477	1-4Q			Cont.	Cont.	
SIBR/STTR Costs						116					116	
Subtotal:			13750	2436		2593				Cont.	Cont.	
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												
Project Total Cost:			50412	7654		4143				Cont.	Cont.	

Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY		PE NUMBER AND TITLE																PROJECT														
4 - Advanced Component Development and Prototypes		0603327A - Air and Missile Defense Systems Engineering																S25														
Event Name	FY 08				FY 09				FY 10				FY 11				FY 12				FY 13				FY 14				FY 15			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Coordinate & integrate SIAP rqmts into doctrine, demos, experiments, & exercise.																																
Execute Congressional Adds																																

Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes		PE NUMBER AND TITLE 0603327A - Air and Missile Defense Systems Engineering					PROJECT S25	
<u>Schedule Detail</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>
Coordinate & integrate SIAP rqmts into doctrine, demos, experiments, & exercise.	1Q - 4Q	1Q - 4Q						
Execute Congressional Adds	1Q - 4Q	1Q - 4Q						

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes	PE NUMBER AND TITLE 0603327A - Air and Missile Defense Systems Engineering			PROJECT S32	
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
S32 JOINT SIAP SYSTEM ENGINEERING	24303				24303

A. Mission Description and Budget Item Justification: The Single Integrated Air Picture (SIAP) is the product of fused data from multiple sensors - a "System of Systems" (SoS) that provides unambiguous, actionable tracks of all airborne objects in a surveillance volume. All airborne objects of interest must be detected, tracked, and reported. Every object must have one and only one track and set of identified characteristics. Weapon systems from each Service must see and act on the same track data consistently. Current systems do not provide this capability.

The Single Integrated Air Picture program is a Joint Requirements Oversight Council (JROC) validated and OSD-directed collaborative enterprise comprising multiple engineering and acquisition programs in each of the Services, all linked by a joint engineering and development organization - the SIAP Joint Program Office (JPO). The SIAP JPO provides the joint SIAP system engineering to enable the System of Systems and coordinate the activities of the participating Services. The major product from the SIAP JPO is a computerized specification, the Integrated Architecture Behavior Model (IABM) that dictates a common architectural standard for systems that make up the Joint SIAP System of Systems. As a result, weapon systems incorporating the IABM will be interoperable, better able to understand the battlespace and able to employ weapons to the full extent of their design capabilities.

A spiral acquisition and development program, SIAP was designated as a Special Interest Program by OUSD (AT&L) in FY 2005. A successful Defense Acquisition Board (DAB) review in March 2006 approved the continuation of the SIAP program. The Joint SIAP System Engineering Organization (JSSEO) formally transitioned to become the SIAP Joint Program Office (SIAP JPO) during second quarter FY 2007. A successful In Process Review Defense Acquisition Board (IPR DAB) in October 2007 resulted in OSD and the Services' commitment to the next increment of Capability Drop 1 (CD-1) follow-on efforts. The SIAP JPO conducted a successful Preliminary Design Review (PDR) for the first Capability Drop (CD-1) on 20 Dec 2007. The SIAP JPO plans to deliver CD-1 in FY 2009 with an Operational Assessment scheduled for FY 2010.

Delivery of the IABM supports CD-1 which is the set of core requirements outlined in the Capability Development Document (CDD) generated by US Joint Forces Command and as validated by the Joint Requirements Oversight Council (JROC) in Sep 2007. CD-1 provides the technology and capability for the SIAP System of Systems to generate the SIAP. That capability includes improved efficiency in processing track data, network latency reduction, improved beyond line-of-sight ability, consistent track management and combat identification performance enhancements.

Project S32 transferred from this Army PE 0603327A to the Air Force PE 0207451F in FY 09.

<u>Accomplishments/Planned Program:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Product Development IABM Production - Architecture, Specification and Behavior Model	12123		
IAMD Product and Customer Support	600		
Test and Analysis	4454		

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
4 - Advanced Component Development and Prototypes	0603327A - Air and Missile Defense Systems Engineering	S32
Program Management Support and Acquisition Architecture	6427	
Small Business Innovative Research/Small Business Technology Transfer Programs	699	
Total	24303	

B. Other Program Funding Summary Not applicable for this item.

C. Acquisition Strategy The 3 May 2006 USD (AT&L) Acquisition Decision Memorandum (ADM) directs a SIAP acquisition approach based upon development of an Open System integrated architecture with selection and integration of "Best of Breed" functions to achieve a SIAP capability. The acquisition planned represents a "Best of Breed" approach allowing assessment of alternatives at the functional computer program component level. This acquisition strategy is intended to achieve the overall Department Theater Air and Missile Defense (TAMD) modernization planning described by the Integrated Air and Missile Defense (IAMD) and Joint Battle Management Command and Control (JBMC2) Roadmaps.

The SIAP SoS capability will be developed through a SoS engineering approach that uses a Model Driven Architecture® (MDA®) computerized specification, the Integrated Architecture Behavior Model (IABM), to provide the common architectural standard for systems that make up the Joint SIAP System of Systems. The SIAP Joint Program Office (JPO), using a team of industry, government, Federally Funded Research and Development Centers (FFRDCs), and government laboratory personnel, will develop the IABM. Each Service, through its respective program offices, develops platform specific models of the IABM that are used to develop SIAP solutions for incorporation into specific sensor, weapon, combat, and tactical BMC2 systems.

Follow-on IABM development will continue to build upon the Capability Drop-1 baseline and will focus on incorporating advances in distributed sensor and resource management to further automate critical warfighting functions. The SIAP JPO will implement its Rapid Capability Insertion Process (RCIP) to enhance SIAP capability for the System of Systems with RCIP plans oriented toward acquiring capability to provide actionable data for engagement, including Global Information Grid (GIG) connectivity, active and passive combat identification, enhanced track processing and Integrated Fire Control.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
4 - Advanced Component Development and Prototypes			0603327A - Air and Missile Defense Systems Engineering							S32		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Product Development IABM Production - Architecture, Specification and Behavior Model	MIPR	NAVSEA - JHU/APL, Laurel, MD	10070	3097	1-4Q					Cont.	Cont.	
Product Development IABM Production - Architecture, Specification and Behavior Model	MIPR	GSA - BAH, McLean, VA	9505	2678	1-4Q					Cont.	Cont.	
Product Development IABM Production - Architecture, Specification and Behavior Model	MIPR	GSA, Northrup Grumman	5569	1164	1-4Q					Cont.	Cont.	
Product Development IABM Production - Architecture, Specification and Behavior Model	MIPR	GSA, Sparta, McLean, VA	4777	2072	1-4Q					Cont.	Cont.	
Product Development IABM Production - Architecture, Specification and Behavior Model	Various	Various	53094	3112	1-4Q					Cont.	Cont.	
IABM Product and Customer Support	Various	Various	18209	600	1-4Q					Cont.	Cont.	
Subtotal:			101224	12723						Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY			PE NUMBER AND TITLE								PROJECT	
4 - Advanced Component Development and Prototypes			0603327A - Air and Missile Defense Systems Engineering								S32	
Test & Evaluation Support	Various		3818	4454	1-4Q						8272	
Subtotal:			3818	4454							8272	
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	Various		24084	7126	1-4Q					Cont.	Cont.	
Subtotal:			24084	7126						Cont.	Cont.	
Project Total Cost:			129126	24303						Cont.	Cont.	

Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE																PROJECT															
4 - Advanced Component Development and Prototypes	0603327A - Air and Missile Defense Systems Engineering																S32															
Event Name	FY 08				FY 09				FY 10				FY 11				FY 12				FY 13				FY 14				FY 15			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Army Support to Full Range of Joint SIAP Systems Engineering Activities																																
(1) In Process Review Defense Acquisition Board (IPR DAB)																																
(2) Preliminary Design Review (PDR) Capability Drop 1 (CD-1)																																
IABM Capability Drop 1 Development																																
SIAP SOS Testing																																

Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY		PE NUMBER AND TITLE						PROJECT
4 - Advanced Component Development and Prototypes		0603327A - Air and Missile Defense Systems Engineering						S32
<u>Schedule Detail</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>
Army Support to Full Range of Joint SIAP Systems Engineering Activities	1Q - 4Q							
In Process Review Defense Acquisition Board (IPR DAB)	1Q							
Preliminary Design Review (PDR) Capability Drop 1 (CD-1)	1Q							
IABM Capability Drop 1 Development	1Q - 4Q							
SIAP SOS Testing	1Q - 4Q							

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes		PE NUMBER AND TITLE 0603327A - Air and Missile Defense Systems Engineering			PROJECT S34
COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
S34 AMD SYSTEM OF SYSTEMS ENGINEERING AND INTEGRATION	123712	114673	209531	Continuing	Continuing

A. Mission Description and Budget Item Justification: Funding in this project provides the overarching Integrated Air and Missile Defense (IAMD) Architecture and IAMD Battle Command System (IBCS) components necessary to produce an IAMD capability. The IAMD Program represents a shift from a traditional system-centric weapon systems acquisition to a component-based acquisition. This component-based acquisition will provide the most efficient way to acquire and integrate the components of the incremental IAMD architectures. Unlike traditional acquisition programs that focus primarily on the development of a single system or platform, the IAMD Program is structured to enable the development of an overarching system-of-systems capability with all participating Air and Missile Defense (AMD) components functioning interdependently to provide total operational capabilities not achievable by the individual element systems. The IAMD Program achieves this objective by establishing the incremental IAMD architecture and developing the following products: the IBCS, the Integrated Fire Control (IFC) Network, and the Common Plug & Fight (P&F) Interface. The IBCS provides the common IAMD Battle Management Command, Control, Communications, Computers and Intelligence (BMC4I) capability. The IFC Network provides fire control connectivity and enabling distributed operations. The Common P&F Interface integrates the multiple sensor and weapon components. Development of the component-unique part of the P&F Interface remains within the purview of the affected components project/product office.

FY 10 funding represents the Integrated Air & Missile Defense capability. Full funding will be established at Milestone B.

<u>Accomplishments/Planned Program:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Product Development	98344	80662	171983
Support Cost	12578	13020	14464
Test and Evaluation	12790	17780	23084
Small Business Innovative Research/Small Business Technology Transfer Program		3211	
Total	123712	114673	209531

<u>B. Other Program Funding Summary</u>	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
PE 0604869A, Project M06, PATRIOT/MEADS Combined Aggregate Program (CAP)	401565	429846	569182	Continuing	Continuing
SSN C50001, PATRIOT/MEADS CAP		30957	16406	Continuing	Continuing
PE 0604802A, Project S23, SLAMRAAM	33570	33662	11736	Continuing	Continuing
PE 0102419A, Proj E55, JLENS	464877	355257	360076	Continuing	Continuing

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE			PROJECT
4 - Advanced Component Development and Prototypes	0603327A - Air and Missile Defense Systems Engineering			S34
SSN C81001, SLAMRAAM Production		40349	72920	Continuing
PE 0604820A, Proj E10, Sentinel	6828			Continuing

Comment:

C. Acquisition Strategy The Integrated Air and Missile Defense (IAMD) Program will employ an evolutionary acquisition strategy consisting of multiple capability increments leading to an objective capability in FY17. The IAMD Program will carry two development contractors through Preliminary Design Review (PDR) with a downselect at Milestone B (MS B).

Each IAMD capability increment follows the IAMD Capability Development Document (CDD) and is defined as:

- Increment 1 is a User-executed capability increment focused on realignment of current force systems into an AMD Composite Battalion (BN) organizational construct. (not part of the materiel development program)
- Increment 2 provides the first increment of an integrated materiel solution, and is the initial acquisition program to develop the objective IAMD capability.

The IAMD incremental development approach provides the opportunity for technology insertions into the program throughout each increment as high-payoff technologies mature and are ready for integration. This enables an orderly and cost-effective migration from the current system-centric architecture to the IAMD architecture.

Key principles of the IAMD acquisition approach are the following:

- Migrate from system-based acquisition to component-based acquisition
- Use system-of-systems acquisition approach with collaboration among IAMD, PEO MS, PEO C3T, and PM Future Combat System Brigade Combat Team (BCT) Component Project Offices, and other Service Project Offices to network enable weapons and sensor components
- Develop and procure common Integrated Battle Command System (IBCS) Command Post (CP) that replaces multiple weapon system unique Battle Management Command, Control, Communications, Computers and Intelligence (BMC4I) components
- Establish product lines used to evaluate and select, modify and integrate modular open systems Hardware (HW) and Software (SW) common configuration items
- Conduct architecture-based System Engineering, Integration and Test (SEI&T) activities for an incremental fielded configuration of the IAMD Integrated Fire Control (IFC) Network-compatible IBCS CP, weapons and sensor system components
- Integration of the Integrated Architecture Behavior Model (IABM) to develop a Single Integrated Air Picture (SIAP) for Army IAMD (AIAMD).

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
4 - Advanced Component Development and Prototypes			0603327A - Air and Missile Defense Systems Engineering							S34		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Air Space and Missile Defense (ASMD) System of Systems (SOS) Hardware-in-the- Loop Testbed	Cost Plus Fixed Fee	Multiple OGA's, Inhouse and Contractor, Huntsville, AL and various other locations	9912							Cont.	Cont.	Cont.
Concept Development	Cost Plus Incentive Fee	Contractors, Huntsville, AL		50408	1-4Q					Cont.	Cont.	Cont.
IAMD System Engineering & Integration	Cost Plus Fixed Fee	Contractor, Huntsville, AL		43725	1-4Q	27305	1-4Q	39418	1-4Q	Cont.	Cont.	Cont.
IBCS System Development and Demonstration	Cost Plus Incentive Fee	Contractor, Huntsville, AL/other locations				51726	2-4Q	119151	1-4Q	Cont.	Cont.	Cont.
Government Furnished Equipment	N/A	Multiple		2246	1-4Q	2643	1-4Q	9583	1-4Q	Cont.	Cont.	Cont.
US Army Aviation and Missile Research Development and Engineering Center (AMRDEC)	N/A	AMRDEC, AL		1965	1-4Q	2199	1-4Q	3831	1-4Q	Cont.	Cont.	Cont.
Subtotal:			9912	98344		83873		171983		Cont.	Cont.	Cont.
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Army Evaluation Center/Developmental Test Command/Operational Test	MIPR	Various		750	1-4Q	1100	1-4Q	780	1-4Q	Cont.	Cont.	Cont.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes				PE NUMBER AND TITLE 0603327A - Air and Missile Defense Systems Engineering						PROJECT S34		
Command												
Modeling & Sim/Joint Interoperability Test Spt	MIPR	Huntsville, AL		12040	1-4Q	16680	1-4Q	22304	1-4Q	Cont.	Cont.	Cont.
Subtotal:				12790		17780		23084		Cont.	Cont.	Cont.

Remarks: Military Interdepartmental Purchase Request (MIPR)

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Government System Engineering & Program Management (SEPM)	N/A	Multiple OGAs, Inhouse and Contractor, Huntsville, AL		12578	1-4Q	13020	1-4Q	14464	1-4Q	Cont.	Cont.	Cont.
Subtotal:				12578		13020		14464		Cont.	Cont.	Cont.

Project Total Cost:	9912	123712		114673		209531		Cont.	Cont.	Cont.
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Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY		PE NUMBER AND TITLE																PROJECT														
4 - Advanced Component Development and Prototypes		0603327A - Air and Missile Defense Systems Engineering																S34														
Event Name	FY 08				FY 09				FY 10				FY 11				FY 12				FY 13				FY 14				FY 15			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
(1) IBCS Contract Awards (IAMD Incr 2)					▲ ₁																											
(2) Preliminary Design Review (PDR) (IBCS Incr 2)									▲ ₂																							
(3) Preliminary Design Review (PDR) (IAMD Incr 2)													▲ ₃																			
(4) MS B (IAMD Incr 2)																	▲ ₄															
(5) Interim Design Review (IDR)																					▲ ₅											

Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes		PE NUMBER AND TITLE 0603327A - Air and Missile Defense Systems Engineering						PROJECT S34
<u>Schedule Detail</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>
IBCS Contract Awards (IAMD Incr 2)	4Q							
Preliminary Design Review (PDR) (IBCS Incr 2)		3Q						
Preliminary Design Review (PDR) (IAMD Incr 2)		4Q						
MS B (IAMD Incr 2)			1Q					
Interim Design Review (IDR)			2Q					