

UNCLASSIFIED

PE NUMBER: 0207451F
 PE TITLE: Single Integrated Air Picture (SIAP)

Exhibit R-2, RDT&E Budget Item Justification	DATE May 2009
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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207451F Single Integrated Air Picture (SIAP)
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Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	4.723	66.663	13.466	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
5232 Air Force Single Integrated Air Picture	4.723	2.796	13.466	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
5275 Joint SIAP Engineering and Development	0.000	63.867	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	TBD

In FY09, Project 5275, Joint SIAP System Engineering and Development efforts were transferred from Army PE 0603327A - Air and Missile Defense Systems Engineering, Project S32, Joint SIAP System Engineering, into Air Force PE 0207451F in accordance with DoD designation of the Air Force as the SIAP Acquisition Executive.

Starting in FY10, efforts to develop and complete the Joint Track Manager were transferred to PE 0605452F, Joint SIAP Executive Program Office, Project 5370.

(U) 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. SIAP systems integration efforts include, but are not limited to: defining the SIAP Platform Independent Model (PIM) functionality, the required SIAP architecture, and the integration of critical methodologies/capabilities for the Services' airborne network to include AF command and control weapons systems. Portions of this work support the development of a Joint Track Manager (JTM).

The Air Force is applying expertise in various AF program offices to assist with defining the SIAP Platform Independent Model (PIM), the SIAP Platform Specific Model (PSM) functionality, the required SIAP architecture, the definition of JTM, and the integration methodology for AF weapon systems and the airborne network. Project 5232 funds AF-specific, SIAP and JTM-related engineering efforts including AF staff that works directly with the Joint SIAP Program Executive Office to help define and develop the functional content of the JTM.

These activities are in Budget Activity 5 (System Development and Demonstration) because they support development, integration solutions, fielding, operational support activities, and special projects.

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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0207451F Single Integrated Air Picture (SIAP)

(U) **B. Program Change Summary (\$ in Millions)**

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Previous President's Budget	4.857	66.909	78.248
(U) Current PBR/President's Budget	4.723	66.663	13.466
(U) Total Adjustments	-0.134	-0.246	
(U) Congressional Program Reductions			
Congressional Rescissions		-0.246	
Congressional Increases			
Reprogrammings	-0.134		
SBIR/STTR Transfer		0.000	

(U) **Significant Program Changes:**

Starting in FY10, efforts to develop and complete the Joint Track Manager were transferred to PE 0605452F, Joint SIAP Executive Program Office, Project 5370.

Exhibit R-2a, RDT&E Project Justification

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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)					PE NUMBER AND TITLE 0207451F Single Integrated Air Picture (SIAP)			PROJECT NUMBER AND TITLE 5232 Air Force Single Integrated Air Picture		
Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
5232 Air Force Single Integrated Air Picture	4.723	2.796	13.466	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

The Air Force is applying expertise in various AF program offices to assist with defining the SIAP Platform Independent Model (PIM), the SIAP Platform Specific Model (PSM) functionality, the required SIAP architecture, the definition of the JTM, and the integration methodology for AF weapon systems and the airborne network. Project 5232 funds AF-specific, SIAP-related engineering efforts, including Air Force staff, that works directly with the Joint SIAP Program Executive Office to help define and develop the functional content of the JTM.

In FY10, the program will continue risk reduction activities to support joint SIAP and JTM activities and integration onto Air Force platforms.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

These activities are in Budget Activity 5 (System Development and Demonstration) because they support development, integration solutions, fielding, operational support activities, and special projects.

(U) B. Accomplishments/Planned Program (\$ in Millions)

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Integration Resource Center (Dev & Risk Reduction)	0.049	0.000	3.956
(U) Integration and Implementation (BCS-F)	0.080	0.000	6.956
(U) Engineering Support	2.753	1.798	1.627
(U) Program Office Support	1.841	0.998	0.927
(U) Total Cost	4.723	2.796	13.466

(U) C. Other Program Funding Summary (\$ in Millions)

	<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>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) None										

(U) D. Acquisition Strategy

The Air Force SIAP program office provides for common development and integration across multiple AF platforms and airborne networks via existing contract mechanisms. The AF has established several contract vehicles for risk reduction and system engineering technical support.

With the current AF funding, the contractor will support JTM definition and continue limited Risk Reduction in FY10.

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Exhibit R-3, RDT&E Project Cost Analysis

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BUDGET ACTIVITY				PE NUMBER AND TITLE					PROJECT NUMBER AND TITLE			
05 System Development and Demonstration (SDD)				0207451F Single Integrated Air Picture (SIAP)					5232 Air Force Single Integrated Air Picture			
(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2008 Cost</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>FY 2010 Cost</u>	<u>FY 2010 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u> Integration Resource Center (Dev & Risk Reduction)	CPFF	BAE Systems Inc, Arlington VA	4.500	0.049	Nov-07	0.000		3.956	Nov-09	Continuing	TBD	TBD
MDA PSM Development (AWACS 40/45)	CPIF	Boeing Co., Seattle WA	6.000	0.000		0.000		0.000		Continuing	TBD	TBD
MDA Integration and Implementation (BCS-F)	CPIF	Thales-Raytheon Systems, Fullerton CA	14.378	0.080	Nov-08	0.000		6.956	Nov-09	Continuing	TBD	TBD
Subtotal Product Development			24.878	0.129		0.000		10.912		Continuing	TBD	TBD
Remarks:												
(U) <u>Support</u> ESC Engineering Support	CP/FFFP	Titan Corp, Odyssey Consulting Group, BTAS Inc, MITRE,GCIC	4.856	2.753	Oct-07	1.798	Oct-08	1.627	Oct-09	Continuing	TBD	TBD
Subtotal Support			4.856	2.753		1.798		1.627		Continuing	TBD	TBD
Remarks:												
(U) <u>Test & Evaluation</u>												
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) <u>Management</u> Program Office support	CP/FFFP	PE Systems, Engility, C2 Kinetics, Law Battelle	2.227	1.841	Oct-07	0.998	Oct-08	0.927	Feb-09	Continuing	TBD	TBD
Subtotal Management			2.227	1.841		0.998		0.927		Continuing	TBD	TBD
Remarks:												
(U) Total Cost			31.961	4.723		2.796		13.466		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

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BUDGET ACTIVITY
05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE
0207451F Single Integrated Air
Picture (SIAP)

PROJECT NUMBER AND TITLE
5232 Air Force Single Integrated Air
Picture



AF SIAP Schedule

CAO: Apr 09

FY	2008	2009	2010*	2011	2012	2013	2014	2015
(TIER 2) SPO TIER 1 Support Joint Arch WG & Integration Resource Center support	Programmatic and technical support	Programmatic and technical support AF Monitoring Risk Reduction Model Driven Architecture Tools Development Capability Drop 1 Initial	Programmatic and technical support					
			Development Risk Reduction					
			System Engineering					
(TIER 3) USAF AWACS 40/45 (Block 1) Battle Control System (BCS)	Risk Reduction/Integration into BCS In the Lab							

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Exhibit R-4a, RDT&E Schedule Detail	DATE May 2009
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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0207451F Single Integrated Air Picture (SIAP)	PROJECT NUMBER AND TITLE 5232 Air Force Single Integrated Air Picture
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	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) <u>Schedule Profile</u>			
(U) Programmatic and technical support	1-4Q	1-4Q	1-4Q
(U) Dev & Risk Reduction	1-4Q	1-3Q	1-4Q
(U) System Engineering	1-4Q	1-3Q	1-4Q
(U) Capability Drop 1	4Q		
(U) BCS Risk Reduction/Integration	1-4Q	1-2Q	2-4Q

Exhibit R-2a, RDT&E Project Justification

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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0207451F Single Integrated Air Picture (SIAP)				PROJECT NUMBER AND TITLE 5275 Joint SIAP Engineering and Development		
Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
5275 Joint SIAP Engineering and Development	0.000	63.867	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

In FY09, Project 5275, Joint SIAP System Engineering and Development efforts were transferred from Army PE 0603327A - Air and Missile Defense Systems Engineering, Project S32, Joint SIAP System Engineering, into Air Force PE 0207451F in accordance with DoD designation of the Air Force as the SIAP Acquisition Executive.

Starting in FY10, efforts to develop and complete the Joint Track Manager were transferred to PE 0605452F, Joint SIAP Executive Program Office, Project 5370.

(U) A. Mission Description and Budget Item Justification

The Single Integrated Air Picture program was a Joint Requirements Oversight Council (JROC) validated and OSD-directed collaborative enterprise comprising multiple engineering and acquisition programs in each of the Services. The program provided the joint SIAP system engineering to establish horizontal integration of Theater Air and Missile Defense systems to generate accurate, consistent and timely information for the theater-wide Common Tactical Picture.

The core SIAP requirements are outlined in the SIAP Capability Development Document (CDD) generated by US Joint Forces Command and validated by the Joint Requirements Oversight Council (JROC) in Sep 07.

The SIAP Joint Program Office was cancelled in the FY10 President's budget and efforts to develop and complete the Joint Track Manager were transferred to the Joint Executive Program Office, PE 0605452F.

These activities are in Budget Activity 5 (System Development and Demonstration) because they support development, integration solutions, fielding, operational support activities, and special projects.

(U) B. Accomplishments/Planned Program (\$ in Millions)

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Development - Architecture, Specification and Behavior Model	0.000	16.738	0.000
(U) System Engineering	0.000	10.019	0.000
(U) Product Support	0.000	3.430	0.000
(U) SoS Customer Support (Technical Analysis and Implementation)	0.000	3.159	0.000
(U) Test and Evaluation - Developmental	0.000	3.249	0.000
(U) SIAP System of Systems Test and Evaluation - Operational	0.000	11.478	0.000
(U) Program Management Support	0.000	10.938	0.000
(U) JPEO Management Support	0.000	0.595	0.000
(U) Acquisition Infrastructure (RDT&E facilities and equipment)	0.000	4.261	0.000
(U) Total Cost	0.000	63.867	0.000

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05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0207451F Single Integrated Air Picture (SIAP)

PROJECT NUMBER AND TITLE

5275 Joint SIAP Engineering and Development

(U) C. Other Program Funding Summary (\$ in Millions)

	<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>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) PE 0605452F, Proj 5370, RTD&E, AF	0.000	0.000	35.000							TBD

(U) D. Acquisition Strategy

The SIAP acquisition strategy was based on a "Best of Breed" approach allowing assessment of alternatives at the functional computer program component level and facilitates Service implementation of the SIAP capability.

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BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT NUMBER AND TITLE			
05 System Development and Demonstration (SDD)				0207451F Single Integrated Air Picture (SIAP)				5275 Joint SIAP Engineering and Development			

<u>(U) Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2008 Cost</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>FY 2010 Cost</u>	<u>FY 2010 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u>												
System of Systems Engineering	C/CPFF	JHU/APL, Laurel, MD	0.000	0.000		4.238	Oct-08	0.000		0.000	4.238	TBD
System of Systems Engineering	C/CPFF	SAIC, McLean, VA	0.000	0.000		2.237	Oct-08	0.000		0.000	2.237	TBD
Architecture, Specification and Behavior Model	C/CPFF	BAH, McLean, VA	0.000	0.000		3.596	Nov-08	0.000		0.000	3.596	TBD
Architecture, Specification and Behavior Model	C/CPFF	CSC, Lanham, MD	0.000	0.000		1.772	Oct-08	0.000		0.000	1.772	TBD
Architecture, Specification and Behavior Model	C/CPFF	Sparta, Laguna Hills, CA	0.000	0.000		2.946	Oct-08	0.000		0.000	2.946	TBD
Architecture, Specification and Behavior Model	C/CPFF	Raytheon, Laguna Beach, CA	0.000	0.000		1.082	Oct-08	0.000		0.000	1.082	TBD
Architecture, Specification and Behavior Model	C/CPFF	BAE, Nashua, NH	0.000	0.000		2.878	Nov-08	0.000		0.000	2.878	TBD
Architecture, Specification and Behavior Model	Various	Various	0.000	0.000		8.008	Nov-08	0.000		0.000	8.008	TBD
Subtotal Product Development			0.000	0.000		26.757		0.000		0.000	26.757	TBD
Remarks:												
(U) <u>Support</u>												
Product Support	Various	Various	0.000	0.000		3.430	Oct-08	0.000		0.000	3.430	TBD
Customer Support	Various	Various	0.000	0.000		3.159	Oct-08	0.000		0.000	3.159	TBD
Subtotal Support			0.000	0.000		6.589		0.000		0.000	6.589	TBD
Remarks:												
(U) <u>Test & Evaluation</u>												
Product and SoS T&E	C/CPFF	SPA, Alexandria VA	0.000	0.000		3.108	Oct-08	0.000		0.000	3.108	TBD
SoS T&E	MIPR	JITC, Ft Huachuca AZ	0.000	0.000		1.825	Oct-08	0.000		0.000	1.825	TBD
Product T&E	SS/FFP	RhinoCorps (8a), Albuquerque, NM	0.000	0.000		1.160	Dec-08	0.000		0.000	1.160	TBD
SoS T&E	C/CPFF	JHU/APL, Laurel, MD	0.000	0.000		1.442	Oct-08	0.000		0.000	1.442	TBD
Product and SoS T&E	C/CPFF	Northrop Grumman - IT, McLean, VA	0.000	0.000		2.928	Oct-08	0.000		0.000	2.928	TBD
Product and SoS T&E	Various	Various	0.000	0.000		4.264	Oct-08	0.000		0.000	4.264	TBD

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Exhibit R-3 (PE 0207451F)

Project 5275

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05 System Development and Demonstration (SDD)				0207451F Single Integrated Air Picture (SIAP)				5275 Joint SIAP Engineering and Development			
Subtotal Test & Evaluation			0.000	0.000	14.727			0.000	0.000	14.727	TBD
Remarks:											
(U) <u>Management</u>											
Program Management Support	C/CPFF	Westar, Huntsville, AL	0.000	0.000	1.400	Oct-08		0.000	0.000	1.400	TBD
JPEO Management Support			0.000	0.000	0.595	Oct-08		0.000	0.000	0.595	TBD
Management Services: Facility & Govt Staff	Various	Various	0.000	0.000	13.799	Oct-08		0.000	0.000	13.799	TBD
Subtotal Management			0.000	0.000	15.794			0.000	0.000	15.794	TBD
Remarks: In FY 2008, the Single Integrated Air Picture (SIAP) Joint Program Office (JPO) was funded in Army PE 0603327A.											
(U) Total Cost			0.000	0.000	63.867			0.000	0.000	63.867	TBD

Exhibit R-4, RDT&E Schedule Profile

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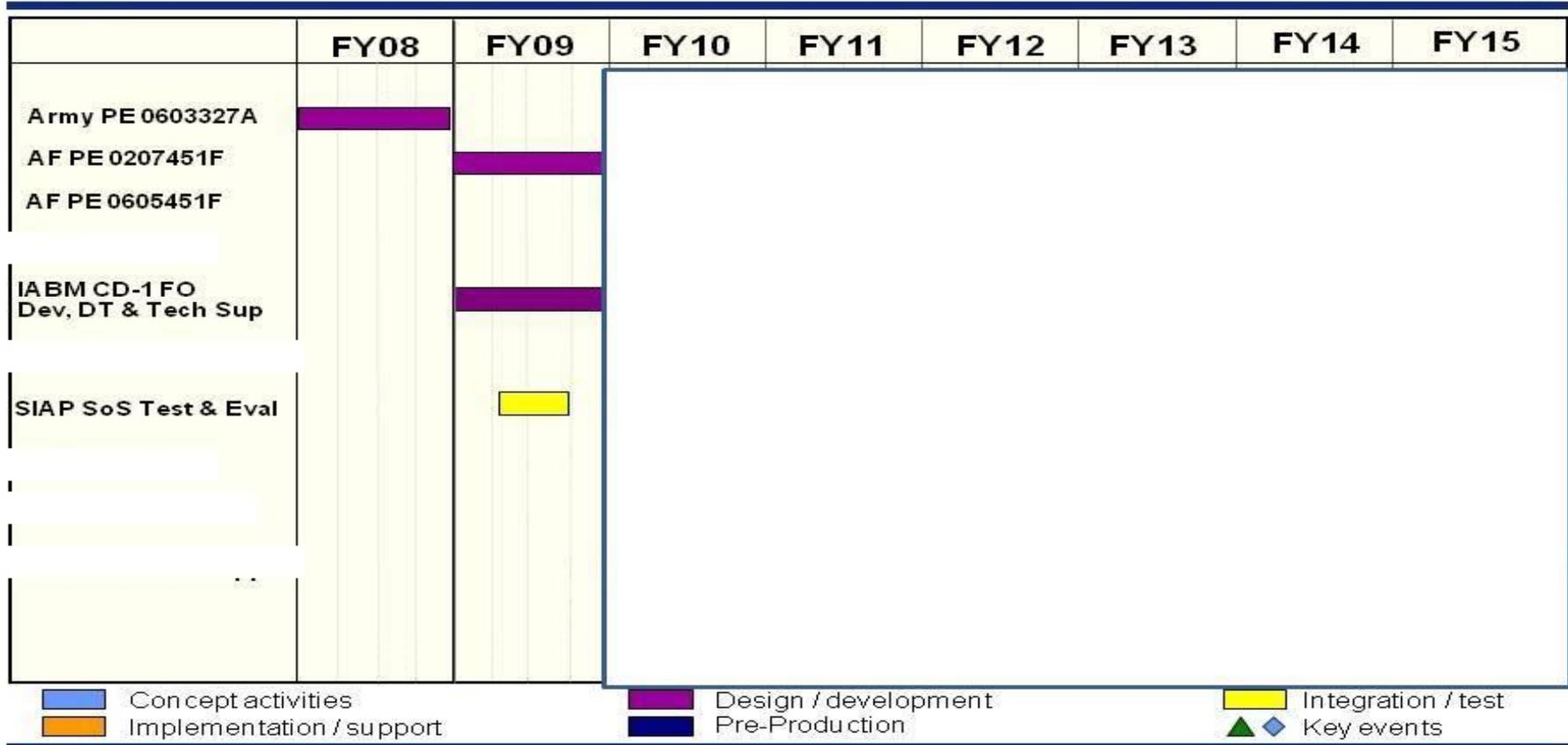
0207451F Single Integrated Air Picture (SIAP)

PROJECT NUMBER AND TITLE

5275 Joint SIAP Engineering and Development



Program Schedule



PB10 R-Docs

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Exhibit R-4a, RDT&E Schedule Detail	DATE May 2009
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(U) <u>Schedule Profile</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Army PE 0603327A Budget for SIAP JPO	1-4Q		
(U) Dev, DT & Tech Support		1-4Q	