

UNCLASSIFIED

PE NUMBER: 0207451F

PE TITLE: Single Integrated Air Picture (SIAP)

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2006

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0207451F Single Integrated Air Picture (SIAP)

Cost (\$ in Millions)	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	0.000	0.000	40.124	13.162	0.102	0.000	0.000	0.000	0.000
5232 Single Integrated Air Picture (SIAP)	0.000	0.000	40.124	13.162	0.102	0.000	0.000	0.000	0.000

In FY07, this is a new PE. All Single Integrated Air Picture (SIAP) funds from PE 0207443F Project #655187 and PE 0207434F Project #655050 were transferred to consolidate Air Force SIAP funds.

(U) **A. Mission Description and Budget Item Justification**

The Single Integrated Air Picture (SIAP), consists of common, continual and unambiguous tracks of airborne objects of interest in the surveillance area. SIAP is derived from real-time and near real-time data and consists of correlated air object tracks and associated information. 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 methodology for AF Command and Control weapons systems.

- SIAP Block 0 (zero) consists of implementing four Interface Change Proposals (ICPs) [Correlation/Decorrelation, ID Taxonomy, ID Conflict Resolution, and Strength Track Reporting] across specific AF Intelligence, Surveillance, and Reconnaissance (ISR) weapons systems. The Block 0 schedule for implementation has various completion dates depending upon weapon system.
- The next phase of SIAP consists of the development and implementation of a software Model Driven Architecture (MDA). The MDA approach will provide enhanced interoperability by implementing Joint Battle Management Command and Control (JBMC2) functionality in weapon systems, thus enabling more accurate situational awareness and reduced fratricide. The SIAP funding in PE 0207451F develops, tests, and integrates the SIAP functionality into initial Air Force weapon systems to include but not limited to the E-3 AWACS, Battle Control System, and RC-135V/W Rivet Joint.
- The Air Force is applying expertise in the various AF weapon System Program Offices (SPOs) to assist with defining the SIAP Platform Independent Model (PIM) and the SIAP Platform Specific Model (PSM) functionality, the required SIAP architecture, and the integration methodology for AF weapon systems. This effort funds AF-specific, SIAP-related engineering efforts and the independent verification/validation efforts for AF weapon system-specific models used in SIAP integration. Also, the Air Force has staff that works directly with the Joint SIAP Systems Engineering Office (JSSEO) to help define and develop the functional content of the SIAP PIM.

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

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	0.000	0.000	0.000
(U) Current PBR/President's Budget	0.000	0.000	40.124
(U) Total Adjustments	0.000	0.000	
(U) Congressional Program Reductions		0.000	
Congressional Rescissions		0.000	
Congressional Increases		0.000	
Reprogrammings		0.000	
SBIR/STTR Transfer		0.000	

(U) **Significant Program Changes:**

In FY07, this is a new PE. All Single Integrated Air Picture (SIAP) funds from PE 0207443F Project #655187 and PE 0207434F Project #655050 were transferred to consolidate Air Force SIAP funds.

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Exhibit R-2a, RDT&E Project Justification

DATE

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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 Single Integrated Air Picture
(SIAP)

Cost (\$ in Millions)	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5232 Single Integrated Air Picture (SIAP)	0.000	0.000	40.124	13.162	0.102	0.000	0.000	0.000	0.000
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

In FY07 this is a new PE. All Single Integrated Air Picture (funds) from PE 0207443F Project #655187 and PE 0207434F Project #655050 were transferred to consolidate Air Force SIAP funds.

(U) **A. Mission Description and Budget Item Justification**

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- SIAP Block 0 (zero) consists of implementing four Interface Change Proposals (ICPs) [Correlation/Decorrelation, ID Taxonomy, ID Conflict Resolution, and Strength Track Reporting] across specific AF Intelligence, Surveillance, and Reconnaissance (ISR) weapons systems. The Block 0 schedule for implementation has various completion dates depending upon weapon system.
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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 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) MDA PSM Development			8.968
(U) MDA Integration and Implementation			15.546
(U) MDA Demonstration			2.500
(U) Integration Resource Center			3.500
(U) MDA Verification and Validation			2.703

Project 5232

R-1 Shopping List - Item No. 100-4 of 100-8

Exhibit R-2a (PE 0207451F)

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Exhibit R-2a, RDT&E Project Justification

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PROJECT NUMBER AND TITLE

5232 Single Integrated Air Picture
(SIAP)(U) **B. Accomplishments/Planned Program (\$ in Millions)**FY 2005FY 2006FY 2007

(U) Engineering Support

6.907

(U) Total Cost

0.000

0.000

40.124

(U) **C. Other Program Funding Summary (\$ in Millions)**FY 2005FY 2006FY 2007FY 2008FY 2009FY 2010FY 2011Cost toTotal CostActualEstimateEstimateEstimateEstimateEstimateEstimateComplete

(U) RDT&E

0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

(U) **D. Acquisition Strategy**

The Air Force SIAP System Program Office (SPO) provides for common development and integration across multiple Air Force platforms via existing contract mechanisms.

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Exhibit R-3, RDT&E Project Cost Analysis

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PROJECT NUMBER AND TITLE

5232 Single Integrated Air Picture
(SIAP)

(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &</u> <u>Type</u>	<u>Performing</u> <u>Activity &</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target Value</u> <u>of Contract</u>
(U) <u>Product Development</u> Integration Resource Center	CPFF	BAE Systems Inc, Arlington VA						3.500	Nov-06	Continuing	TBD	TBD
MDA PSM Development	CPIF	Boeing Co., Seattle WA						8.968	Nov-06	Continuing	TBD	TBD
MDA Integration and Implementation	CPIF	Thales-Raythe on Systems, Fullerton CA						15.546	Nov-06	Continuing	TBD	TBD
Subtotal Product Development Remarks:			0.000	0.000		0.000		28.014		Continuing	TBD	TBD
(U) <u>Support</u> ESC Engineering Support	CP/FFFP	Titan Corp, Odyssey Consulting Group, BTAS Inc, MITRE						6.907	Oct-06	Continuing	TBD	TBD
Subtotal Support Remarks:			0.000	0.000		0.000		6.907		Continuing	TBD	TBD
(U) <u>Test & Evaluation</u> MDA Demonstration	TBD	TBD						2.500	Jan-07	Continuing	TBD	TBD
MDA Verification and Validation	TBD	TBD						2.703	Jan-07	Continuing	TBD	TBD
Subtotal Test & Evaluation Remarks:			0.000	0.000		0.000		5.203		Continuing	TBD	TBD
(U) <u>Management</u> Subtotal Management Remarks:			0.000	0.000		0.000		0.000		0.000	0.000	0.000
(U) Total Cost			0.000	0.000		0.000		40.124		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

DATE

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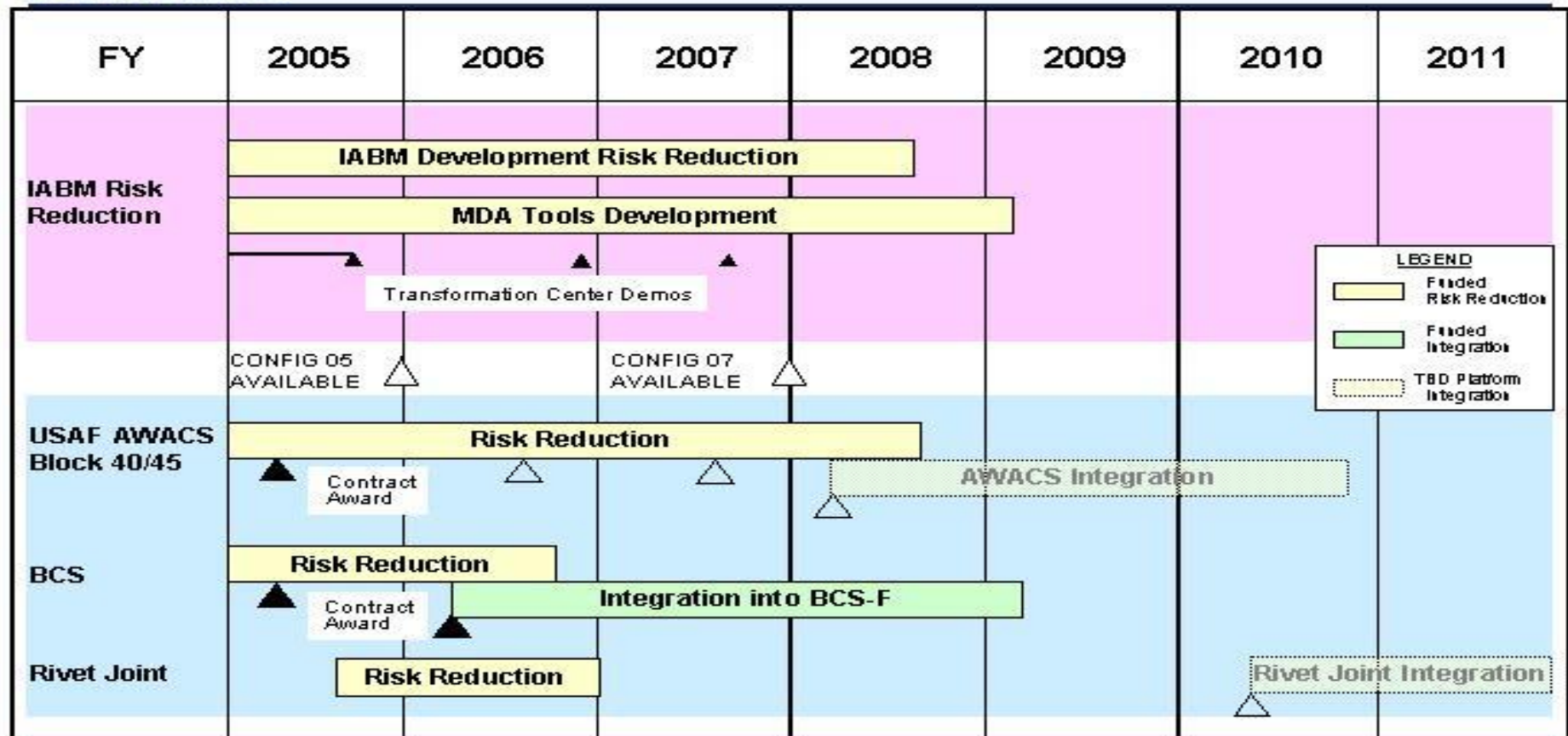
0207451F Single Integrated Air
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5232 Single Integrated Air Picture
(SIAP)

U.S. AIR FORCE

Single Integrated Air Picture (SIAP) Schedule



As of 12 January 06

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Exhibit R-4a, RDT&E Schedule Detail

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5232 Single Integrated Air Picture
(SIAP)(U) Schedule ProfileFY 2005FY 2006FY 2007

(U) MDA Tools Development (Software Integration Tools)

1-4Q

1-4Q

1-4Q

(U) Transformation Center Demo

3Q

4Q

3Q

(U) IABM Config 05 Release

4Q

(U) AWACS Risk Reduction

1-4Q

1-4Q

1-4Q

(U) BCS Risk Reduction

1-4Q

1-3Q

(U) BCS IABM Integration

2-4Q

1-4Q

(U) Rivet Joint Risk Reduction

3-4Q

1-4Q