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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603260F: Intelligence Advanced Development							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	6.570	5.809	5.019	0.000	5.019	5.091	5.173	5.250	5.327	Continuing	Continuing
643479: Advanced Sensor Exploitation	1.830	1.829	1.833	0.000	1.833	1.841	1.842	1.870	1.897	Continuing	Continuing
643480: Automated Imagery Exploitation	2.446	0.911	0.904	0.000	0.904	0.922	0.945	0.959	0.973	Continuing	Continuing
643481: Knowledge Based Tech For Intelligence	1.577	1.557	1.564	0.000	1.564	1.601	1.659	1.683	1.709	Continuing	Continuing
643482: Science & Tech Intelligence Methodology	0.717	1.512	0.718	0.000	0.718	0.727	0.727	0.738	0.748	Continuing	Continuing
A. Mission Description and Budget Item Justification											
<p>(U) Program Element (PE) Intelligence Advanced Development (IAD) demonstrates and validates advanced technologies required to support warfighter needs for timely all-source intelligence information. IAD research supports global awareness, consistent battlespace knowledge, precision information, and the execution of time-critical missions. IAD projects provide better on-time information to the warfighter by using new and existing data sources, streamlining data analyses, reducing the required intelligence footprint, and by extending the life of sensors in place as well as enhancing their performance. The Air Force Research Laboratory, Rome Research Site, Information and Intelligence Exploitation Division (AFRL/RIE) works directly with users, employing a rapid prototyping evolutionary approach, then integrating finished modules directly into the field. The programs are oriented towards specific shortfalls and deficiencies as documented by the major commands, combatant commands, and intelligence organizations in their mission and functional area plans. The goal of this PE is to expedite technology transition from the laboratory to operational use via rapid prototyping. This Air Force (AF) PE is focused on technology insertion to correct AF intelligence deficiencies at tactical and operational levels. The PE bridges the transition of new technologies from Advanced Technology Demonstrations and Integrated Technology Thrust Programs into current/new systems, and also supports the associated Defense Technology Objectives. IAD may reallocate existing resources to support out-of-cycle new/updated warfighter requirements.</p>											
<p>This PE is in Advanced Component Development & Prototypes (ACD&P), Budget Activity 4, because it demonstrates and validates advanced technologies that enhance information / intelligence systems' capabilities and techniques.</p>											

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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force				DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
3600: Research, Development, Test & Evaluation, Air Force		PE 0603260F: Intelligence Advanced Development			
BA 4: Advanced Component Development & Prototypes (ACD&P)					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	6.570	5.009	0.000	0.000	0.000
Current President's Budget	6.570	5.809	5.019	0.000	5.019
Total Adjustments	0.000	0.800	5.019	0.000	5.019
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.800	5.019	0.000	5.019
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: 643480: Automated Imagery Exploitation				FY 2009	FY 2010
Congressional Add: Completed Broad Area Multi-Intelligence Ubiquitous Surveillance Enterprise (BMUSE)				1.600	0.000
Congressional Add Subtotals for Project: 643480				1.600	0.000
Project: 643482: Science & Tech Intelligence Methodology					
Congressional Add: Initiate Multi-Lingual Text Mining Platform for Intel Analysts (MTMPIA)				0.000	0.800
Congressional Add Subtotals for Project: 643482				0.000	0.800
Congressional Add Totals for all Projects				1.600	0.800

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603260F: <i>Intelligence Advanced Development</i>				PROJECT 643479: <i>Advanced Sensor Exploitation</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
643479: <i>Advanced Sensor Exploitation</i>	1.830	1.829	1.833	0.000	1.833	1.841	1.842	1.870	1.897	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The project objectives are to develop, demonstrate and evaluate a near-real-time all source correlation/fusion capability by applying state-of-the-art data processing techniques for the receipt, correlation, templating, and analysis of battlefield information. Capabilities will be developed in an open systems architecture environment allowing for the greatest efficiency in terms of integrating or interfacing with other systems. There are Air Force, DoD, and Coalition needs to correlate various sources of intelligence information (Communications Intelligence - COMINT, Electronic Intelligence - ELINT, Imagery Intelligence - IMINT and Measurement and Signature Intelligence - MASINT) within seconds/minutes as opposed to hours/days with current manual and semi-automated methods. The project includes development of data correlation and predictive intelligence algorithms as well as target analysis and prioritization, air order of battle update, and tactical analysis techniques. This computerized approach will speed up the correlation of data from diverse sources of intelligence information, including COMINT, ELINT, IMINT and MASINT; providing faster situational awareness and threat assessment, and replace manual systems with automated capabilities. Activities also include studies and analysis to support both current program planning and execution and future program planning.

This program is in Advanced Component Development & Prototypes (ACD&P), Budget Activity 4, because it demonstrates and validates advanced technology which enhances information / intelligence systems' capabilities and techniques.

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: Continue Ubiquitous Collaboration	0.872	1.829	1.133	0.000	1.133
<i>FY 2009 Accomplishments:</i> In FY2009: Continue Ubiquitous Collaboration					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 ITEM NOMENCLATURE PE 0603260F: Intelligence Advanced Development		PROJECT 643479: Advanced Sensor Exploitation		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: In FY2010: Continue Ubiquitous Collaboration						
FY 2011 Base Plans: In FY2011: Continue Ubiquitous Collaboration						
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.						
MAJOR THRUST: Completed Semi-Autonomous Intelligence Fusion		0.958	0.000	0.000	0.000	0.000
FY 2009 Accomplishments: In FY2009: Completed Semi-Autonomous Intelligence Fusion						
FY 2010 Plans: In FY2010: N/A						
FY 2011 Base Plans: In FY2011: N/A						
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.						
MAJOR THRUST: Initiate Smart Target Folders		0.000	0.000	0.700	0.000	0.700
FY 2009 Accomplishments: In FY2009: N/A						
FY 2010 Plans: In FY2010: N/A						

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force				DATE: February 2010							
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603260F: <i>Intelligence Advanced Development</i>		PROJECT 643479: <i>Advanced Sensor Exploitation</i>							
B. Accomplishments/Planned Program (\$ in Millions)											
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total			
<i>FY 2011 Base Plans:</i> In FY2011: Initiate Smart Target Folders <i>FY 2011 OCO Plans:</i> In FY 2011 OCO: Not Applicable.											
Accomplishments/Planned Programs Subtotals				1.830	1.829	1.833	0.000	1.833			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• PE Not Provided (684): <i>Activity Not Provided</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D. Acquisition Strategy											
Requirements for new advanced sensor exploitation technologies are gathered and prioritized by the Air Force Intelligence, Surveillance, and Reconnaissance Agency (AFISRA), formerly the Air Intelligence Agency). Development of the new / improved capabilities to meet the requirements is managed by AF Research Laboratory (Rome Research Site). Prototype products (usually software), once evaluated by the users, are fielded in incremental capability spirals. All major contracts within this project are awarded after full and open competition.											
E. Performance Metrics											
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603260F: <i>Intelligence Advanced Development</i>				PROJECT 643479: <i>Advanced Sensor Exploitation</i>					
 Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Ubiquitous Collaboration	C/TBD	Chiliad, ISS Washington DC and Dolphin/ITT: Rome, NY	1.429	1.829	Nov 2009	1.133	Nov 2010	0.000		1.133	Continuing	Continuing	Continuing
Semi-Autonomous Intelligence Fusion	C/TBD	Dynetics Dayton, OH	0.958	0.000		0.000		0.000		0.000	0.000	0.958	0.958
Initiate Smart Target Folders	C/TBD	TBD TBD	0.000	0.000		0.700	Nov 2010	0.000		0.700	Continuing	Continuing	Continuing
Subtotal			2.387	1.829		1.833		0.000		1.833			
Remarks													
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			2.387	1.829		1.833		0.000		1.833			
Remarks Total Prior Years Cost may include only FY 2009 data.													

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

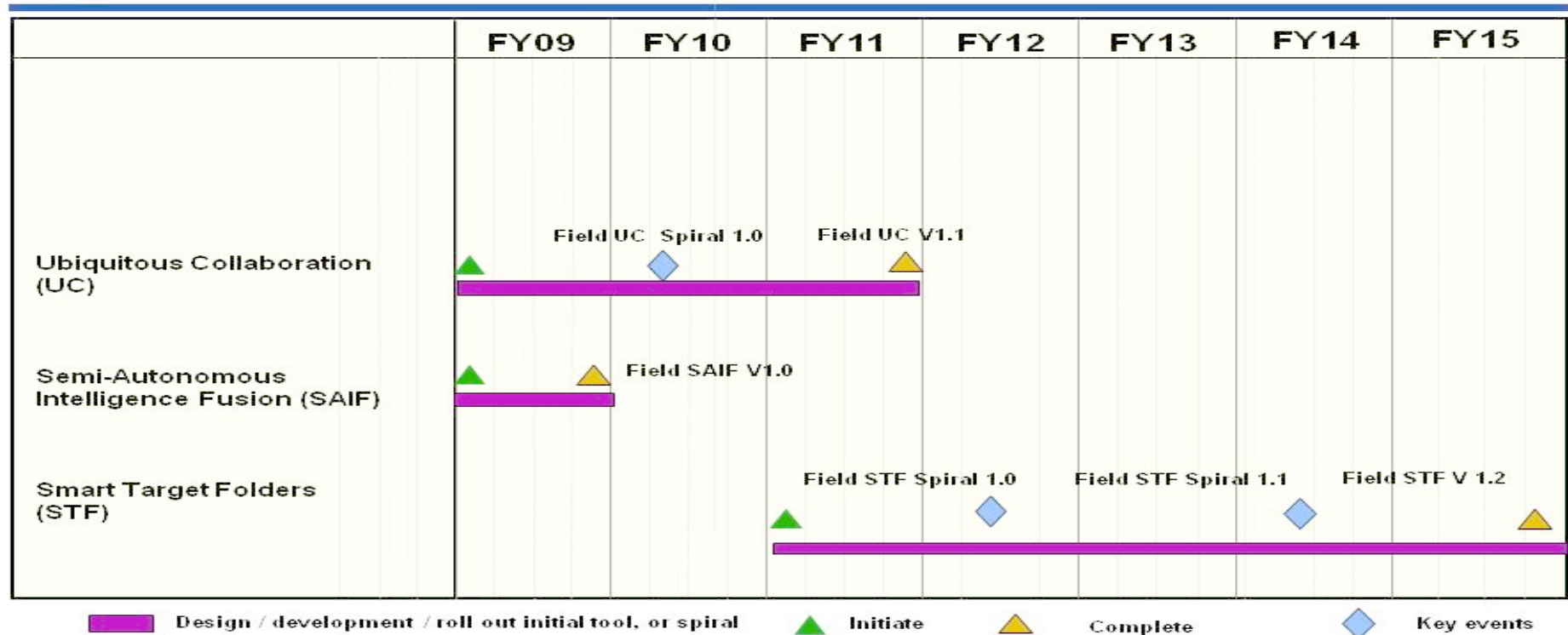
PE 0603260F: Intelligence Advanced Development

PROJECT

643479: Advanced Sensor Exploitation



Intelligence Advanced Development Program – Advanced Sensor Exploitation Program Schedule (BPAC 643479)



PB11 R-Docs

Depicted by installation/production flow

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603260F: <i>Intelligence Advanced Development</i>	PROJECT 643479: <i>Advanced Sensor Exploitation</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Continue Ubiquitous Collaboration	1	2009	4	2011
Completed Semi-Autonomous Intelligence Fusion (a.k.a. Dynamic Models)	1	2009	4	2009
Initiate Smart Target Folders	1	2011	4	2011

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603260F: <i>Intelligence Advanced Development</i>				PROJECT 643480: <i>Automated Imagery Exploitation</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
643480: <i>Automated Imagery Exploitation</i>	2.446	0.911	0.904	0.000	0.904	0.922	0.945	0.959	0.973	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification <p>This project demonstrates and validates the capability to more accurately and quickly interpret digital imagery and video by developing/evaluating computer-assisted techniques to manipulate and overlay imagery, cartographic data, signals intelligence (SIGINT), and on-line intelligence data. The result of this effort will be more precise target locations and identifications, precise target reference scenes, and more accurate damage assessments for the operator; all developed for easy supportability on low-cost, commercially-available computer workstations. Activities also include studies and analysis to support both current program planning and execution and future program planning.</p> <p>This program is in Advanced Component Development & Prototypes (ACD&P), Budget Activity 4, because it demonstrates and validates advanced technology which enhances information / intelligence systems' capabilities and techniques.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
MAJOR THRUST: Completed Multi-View Toolkit for Imagery Assessment and Exploitation						0.546	0.000	0.000	0.000	0.000	
<i>FY 2009 Accomplishments:</i> In FY2009: Completed Multi-View Toolkit for Imagery Assessment and Exploitation											
<i>FY 2010 Plans:</i> In FY2010: N/A											
<i>FY 2011 Base Plans:</i> In FY2011: N/A											

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 ITEM NOMENCLATURE PE 0603260F: Intelligence Advanced Development		PROJECT 643480: Automated Imagery Exploitation		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.						
MAJOR THRUST: Continue Persistent Surveillance FY 2009 Accomplishments: In FY2009: Continue Persistent Surveillance FY 2010 Plans: In FY2010: Continue Persistent Surveillance FY 2011 Base Plans: In FY2011: Continue Persistent Surveillance FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.		0.300	0.330	0.230	0.000	0.230
MAJOR THRUST: Initiate Digital Library Input Processing (DLIPS) FY 2009 Accomplishments: In FY2009: N/A FY 2010 Plans: In FY2010: Initiate Digital Library Input Processing (DLIPS) FY 2011 Base Plans: In FY2011: Initiate Digital Library Input Processing (DLIPS) FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.		0.000	0.581	0.274	0.000	0.274

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force			DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603260F: Intelligence Advanced Development	PROJECT 643480: Automated Imagery Exploitation			
B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: Initiate Emitter Location Systems Modeling (ELSM) FY 2009 Accomplishments: In FY2009: N/A FY 2010 Plans: In FY2010: N/A FY 2011 Base Plans: In FY2011: Initiate Emitter Location Systems Modeling (ELSM) FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.	0.000	0.000	0.200	0.000	0.200
MAJOR THRUST: Initiate Rapid Electronic Attack Assessment For Protection, Exploitation, and Reprogramming (REAPER) FY 2009 Accomplishments: In FY2009: N/A FY 2010 Plans: In FY2010: N/A FY 2011 Base Plans: In FY2011: Initiate Rapid Electronic Attack Assessment For Protection, Exploitation, and Reprogramming (REAPER) FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.	0.000	0.000	0.200	0.000	0.200
Accomplishments/Planned Programs Subtotals	0.846	0.911	0.904	0.000	0.904

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force							DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>			R-1 ITEM NOMENCLATURE PE 0603260F: <i>Intelligence Advanced Development</i>			PROJECT 643480: <i>Automated Imagery Exploitation</i>					
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010				
Congressional Add: Completed Broad Area Multi-Intelligence Ubiquitous Surveillance Enterprise (BMUSE) <i>FY 2009 Accomplishments:</i> In FY2009: Completed Broad Area Multi-Intelligence Ubiquitous Surveillance Enterprise (BMUSE) <i>FY 2010 Plans:</i> In FY2010: N/A						1.600	0.000				
Congressional Adds Subtotals						1.600	0.000				
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• PE Not Provided (954): <i>Activity Not Provided</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D. Acquisition Strategy											
Requirements for new computer assisted techniques for interpretation of digital imagery and video are gathered and prioritized by the Air Force Intelligence, Surveillance, and Reconnaissance Agency (AFISRA), formerly the Air Intelligence Agency. Development of new / improved capabilities to meet these requirements is managed by AF Research Laboratory (Rome Research Site). The prototype products (usually software), once evaluated by the users, are fielded in incremental capability spirals. All major contracts within this project are awarded after full and open competition.											
E. Performance Metrics											
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603260F: <i>Intelligence Advanced Development</i>				PROJECT 643480: <i>Automated Imagery Exploitation</i>					
Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Multi-View Toolkit for Imagery Assessment and Exploitation	C/CPFF	PAR Government Systems Corp. New Hartford, NY	1.833	0.000		0.000		0.000		0.000	0.000	1.833	1.833
Persistent Surveillance	C/CPFF	ITT Rochester, NY	0.622	0.330	Nov 2009	0.230	Nov 2010	0.000		0.230	Continuing	Continuing	Continuing
Digital Library Input Processing (DLIPS)	C/TBD	TBD TBD	0.000	0.581	Feb 2010	0.274	Feb 2011	0.000		0.274	Continuing	Continuing	Continuing
Broad Area Multi-Intelligence Ubiquitous Surveillance Enterprise (BMUSE) - Cong Add	C/CPFF	ITT White Plains, NY	1.600	0.000		0.000		0.000		0.000	0.000	1.600	1.600
Emitter Location Systems Modeling (ELSM)	C/TBD	TBD TBD	0.000	0.000		0.200		0.000		0.200	Continuing	Continuing	Continuing
REAPER	C/TBD	TBD TBD	0.000	0.000		0.200		0.000		0.200	Continuing	Continuing	Continuing
Subtotal			4.055	0.911		0.904		0.000		0.904			
Remarks													
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			4.055	0.911		0.904		0.000		0.904			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force							DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>			R-1 ITEM NOMENCLATURE PE 0603260F: <i>Intelligence Advanced Development</i>			PROJECT 643480: <i>Automated Imagery Exploitation</i>			
	Total Prior Years Cost	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract	
Remarks Total Prior Years Cost may include only FY 2009 data.									

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

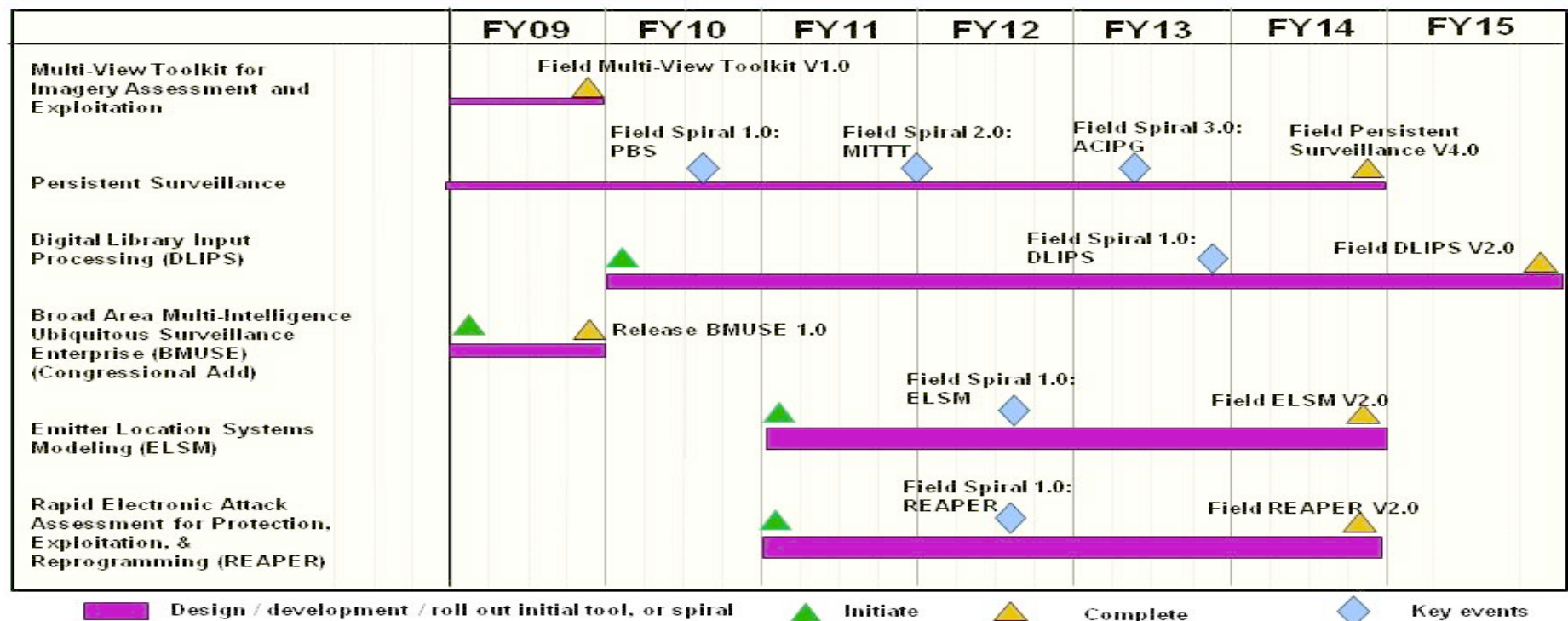
PE 0603260F: Intelligence Advanced Development

PROJECT

643480: Automated Imagery Exploitation



Intelligence Advanced Development Program – Advanced Automated Imagery Exploitation Schedule (BPAC 643480)



PB11 R-Docs

Depicted by installation/production flow

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603260F: <i>Intelligence Advanced Development</i>	PROJECT 643480: <i>Automated Imagery Exploitation</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Completed Multi-View Toolkit for Imagery Assessment and Exploitation	1	2009	4	2009
Continue Persistent Surveillance	1	2009	4	2011
Continue Digital Library Input Processing (DLIPS)	1	2010	4	2011
Initiated / Completed Broad Area Multi-Intelligence Ubiquitous Surveillance Enterprise (BMUSE) (FY09 Congressional Add)	1	2009	4	2009
Initiate ELSM	1	2011	4	2011
Initiate REAPER	1	2011	4	2011

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603260F: <i>Intelligence Advanced Development</i>				PROJECT 643481: <i>Knowledge Based Tech For Intelligence</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
643481: <i>Knowledge Based Tech For Intelligence</i>	1.577	1.557	1.564	0.000	1.564	1.601	1.659	1.683	1.709	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification <p>This project improves Global Awareness, Dynamic Planning, and Execution by providing knowledge bases and inference engines to exploit collected data for nine major commands and AF intelligence organizations. The development of the analytical aids is based on artificial intelligence techniques. The increased timeliness, efficiency and effectiveness derived will provide enhanced warning time and accuracy, allowing national/military authorities a greater range of options to avert, diminish or control a crisis. Activities also include studies and analysis to support both current program planning and execution and future program planning.</p> <p>This program is in Advanced Component Development & Prototypes (ACD&P), Budget Activity 4, because it demonstrates and validates advanced technology which enhances information/intelligence systems' capabilities and techniques.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: Continue Dynamic ISR for Non-Traditional Adversarial Methods <i>FY 2009 Accomplishments:</i> In FY2009: Continue Dynamic ISR for Non-Traditional Adversarial Methods <i>FY 2010 Plans:</i> In FY2010: Continue Dynamic ISR for Non-Traditional Adversarial Methods <i>FY 2011 Base Plans:</i> In FY2011: Continue Dynamic ISR for Non-Traditional Adversarial Methods							0.621	0.547	1.564	0.000	1.564

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 ITEM NOMENCLATURE PE 0603260F: Intelligence Advanced Development		PROJECT 643481: Knowledge Based Tech For Intelligence		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.						
MAJOR THRUST: Complete Net Enabled Dynamic Security (a.k.a. Enhanced Notional - to - Technical Integration ENTI) FY 2009 Accomplishments: In FY2009: Complete Net Enabled Dynamic Security (a.k.a. Enhanced Notional - to - Technical Integration ENTI) FY 2010 Plans: In FY2010: Complete Net Enabled Dynamic Security (a.k.a. Enhanced Notional - to - Technical Integration ENTI) FY 2011 Base Plans: In FY2011: N/A FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.		0.956	1.010	0.000	0.000	0.000
Accomplishments/Planned Programs Subtotals		1.577	1.557	1.564	0.000	1.564

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force								DATE: February 2010																										
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603260F: <i>Intelligence Advanced Development</i>			PROJECT 643481: <i>Knowledge Based Tech For Intelligence</i>																											
<p>C. Other Program Funding Summary (\$ in Millions)</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 20%;"><u>Line Item</u></th> <th style="text-align: right; width: 8%;"><u>FY 2009</u></th> <th style="text-align: right; width: 8%;"><u>FY 2010</u></th> <th style="text-align: right; width: 8%;"><u>FY 2011</u> <u>Base</u></th> <th style="text-align: right; width: 8%;"><u>FY 2011</u> <u>OCO</u></th> <th style="text-align: right; width: 8%;"><u>FY 2011</u> <u>Total</u></th> <th style="text-align: right; width: 8%;"><u>FY 2012</u></th> <th style="text-align: right; width: 8%;"><u>FY 2013</u></th> <th style="text-align: right; width: 8%;"><u>FY 2014</u></th> <th style="text-align: right; width: 8%;"><u>FY 2015</u></th> <th style="text-align: right; width: 8%;"><u>Cost To</u> <u>Complete</u></th> <th style="text-align: right; width: 8%;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>• PE Not Provided (1194): <i>Activity Not Provided</i></td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> </tr> </tbody> </table> <p>D. Acquisition Strategy Requirements for new / improved analytical aids to exploit collected intelligence data are gathered and prioritized by the Air Force Intelligence, Surveillance and Reconnaissance Agency (AFISRA), formerly the Air Intelligence Agency. Development of new / improved capabilities to meet the requirements is managed by AF Research Laboratory (Rome Research Site). Prototype products (usually software), once evaluated by the users, are fielded in incremental capability spirals. All major contracts within this project are awarded after full and open competition.</p> <p>E. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.</p>											<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>	• PE Not Provided (1194): <i>Activity Not Provided</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>																							
• PE Not Provided (1194): <i>Activity Not Provided</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000																							

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603260F: <i>Intelligence Advanced Development</i>				PROJECT 643481: <i>Knowledge Based Tech For Intelligence</i>					
Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Dynamic ISR for Non-Traditional Adversarial Methods	C/TBD	Northrop-Grumman Corp Bellevue, NE	1.134	0.547	Nov 2009	1.564	Nov 2010	0.000		1.564	Continuing	Continuing	Continuing
Net Enabled Dynamic Security (a.k.a. Enhanced Notional - to - Technical Integration ENTI)	C/TBD	ISS Colorado Springs, CO	0.956	1.010	Jan 2010	0.000		0.000		0.000	0.000	1.966	2.066
Subtotal			2.090	1.557		1.564		0.000		1.564			
Remarks Both are IDIQ													
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			2.090	1.557		1.564		0.000		1.564			
Remarks Total Prior Years Cost may include only FY 2009 data.													

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

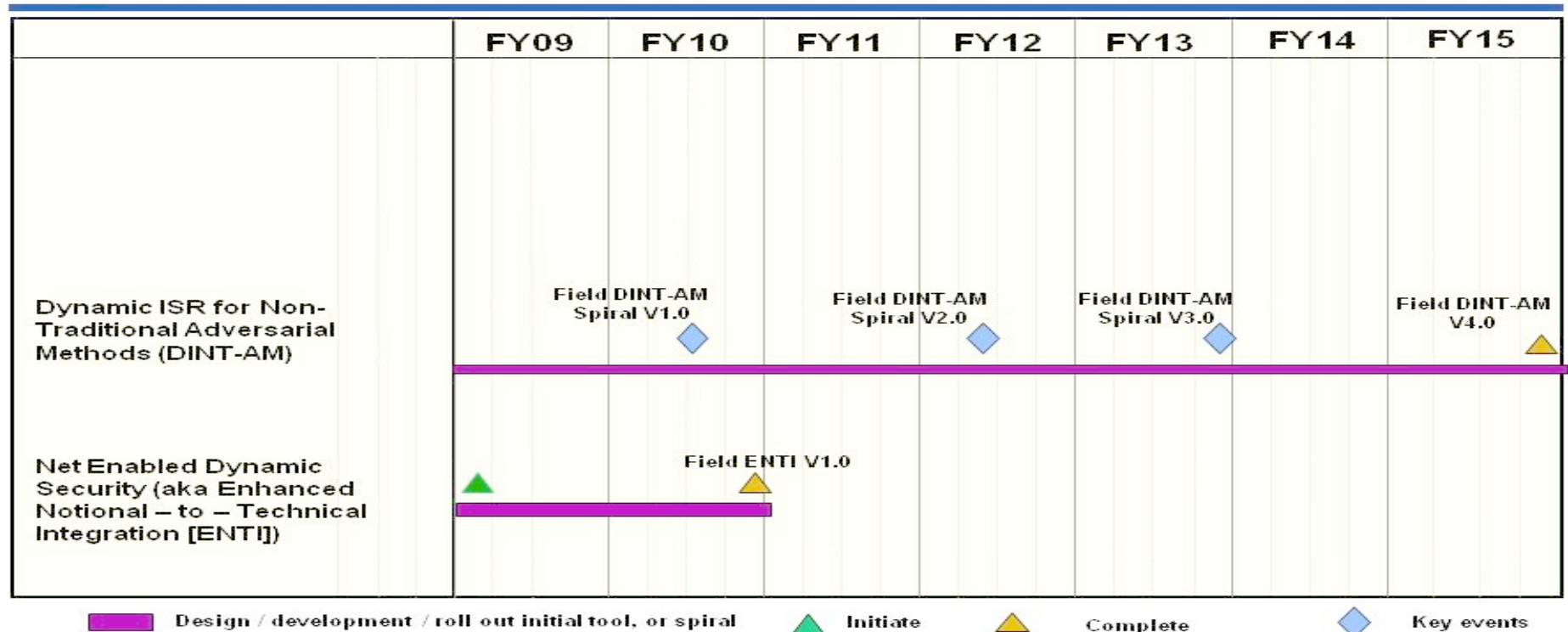
PE 0603260F: Intelligence Advanced Development

PROJECT

643481: Knowledge Based Tech For Intelligence



Intelligence Advanced Development Program – Knowledge Based Tech for Intelligence Schedule (BPAC 643481)



PB11 R-Docs

Depicted by installation/production flow

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603260F: <i>Intelligence Advanced Development</i>	PROJECT 643481: <i>Knowledge Based Tech For Intelligence</i>		
Schedule Details				
	Start		End	
Event	Quarter	Year	Quarter	Year
Continue Dynamic ISR for Non-Traditional Adversarial Methods	1	2009	4	2011
Complete Net Enabled Dynamic Security (a.k.a. Enhanced Notional - to - Technical Integration [ENTI])	1	2009	4	2010

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603260F: <i>Intelligence Advanced Development</i>				PROJECT 643482: <i>Science & Tech Intelligence Methodology</i>			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
643482: <i>Science & Tech Intelligence Methodology</i>	0.717	1.512	0.718	0.000	0.718	0.727	0.727	0.738	0.748	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification <p>The project demonstrates and validates intelligence methodologies and techniques for operational employment of simulation models in support of Air Force Intelligence, Surveillance, and Reconnaissance Agency (AFISRA), formerly the Air Intelligence Agency, requirements. The methods and techniques will help AFISRA improve their analysis of current and future foreign weapon systems, and prevent technological surprises to our warfighters with regard to the capabilities of these systems. Activities also include studies and analysis to support both current program planning and execution and future program planning.</p> <p>This program is in Advanced Component Development & Prototypes (ACD&P), Budget Activity 4, because it demonstrates and validates advanced technology which enhances information / intelligence systems' capabilities and techniques.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
MAJOR THRUST: Completed Adversary Tactics, Training, and Readiness Knowledge Base <i>FY 2009 Accomplishments:</i> In FY2009: Completed Adversary Tactics, Training, and Readiness Knowledge Base <i>FY 2010 Plans:</i> In FY2010: N/A <i>FY 2011 Base Plans:</i> In FY2011: N/A						0.717	0.000	0.000	0.000	0.000	

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 ITEM NOMENCLATURE PE 0603260F: Intelligence Advanced Development		PROJECT 643482: Science & Tech Intelligence Methodology		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.						
MAJOR THRUST: Continue Real Time Intelligence Situational Awareness (Analyst of Tomorrow - AoT) FY 2009 Accomplishments: In FY2009: N/A FY 2010 Plans: In FY2010: Continue Real Time Intelligence Situational Awareness (Analyst of Tomorrow - AoT) FY 2011 Base Plans: In FY2011: Continue Real Time Intelligence Situational Awareness (Analyst of Tomorrow - AoT) FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.		0.000	0.712	0.718	0.000	0.718
Accomplishments/Planned Programs Subtotals		0.717	0.712	0.718	0.000	0.718
		FY 2009	FY 2010			
Congressional Add: Initiate Multi-Lingual Text Mining Platform for Intel Analysts (MTMPIA) FY 2009 Accomplishments: In FY09: N/A FY 2010 Plans: In FY10: Initiate Multi-Lingual Text Mining Platform for Intel Analysts (MTMPIA)		0.000	0.800			

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force							DATE: February 2010				
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603260F: <i>Intelligence Advanced Development</i>			PROJECT 643482: <i>Science & Tech Intelligence Methodology</i>				
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010			
Congressional Adds Subtotals							0.000	0.800			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• PE Not Provided (1391): <i>Activity Not Provided</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
D. Acquisition Strategy											
Requirements for new / improved techniques for operational employment of simulation models are gathered and prioritized by the Air Force Intelligence, Surveillance, and Reconnaissance Agency (AFISRA), formerly the Air Intelligence Agency. Development of the new / improved capabilities to meet the requirements is managed by AF Research Laboratory (Rome Research Site). Prototype products (usually software), once evaluated by the users, are fielded in incremental capability spirals. All major contracts within this project are awarded after full and open competition.											
E. Performance Metrics											
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603260F: <i>Intelligence Advanced Development</i>				PROJECT 643482: <i>Science & Tech Intelligence Methodology</i>					
 Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Adversary Tactics, Training, and Readiness Knowledge Base	C/CPFF	Northrop-Grumman Fairborn, OH	1.430	0.000		0.000		0.000		0.000	0.000	1.430	1.430
Real Time Intelligence Situational Awareness (Analyst of Tomorrow - AoT)	TBD/TBD	TBD TBD	0.000	0.712	Dec 2009	0.718	Nov 2010	0.000		0.718	Continuing	Continuing	Continuing
MTMPIA (FY10 Congressional Add)	TBD/TBD	Janya Amherst, NY	0.000	0.800	Dec 2010	0.000		0.000		0.000	0.000	0.800	0.000
Subtotal			1.430	1.512		0.718		0.000		0.718			
Remarks													
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			1.430	1.512		0.718		0.000		0.718			
Remarks Total Prior Years Cost may include only FY 2009 data.													

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

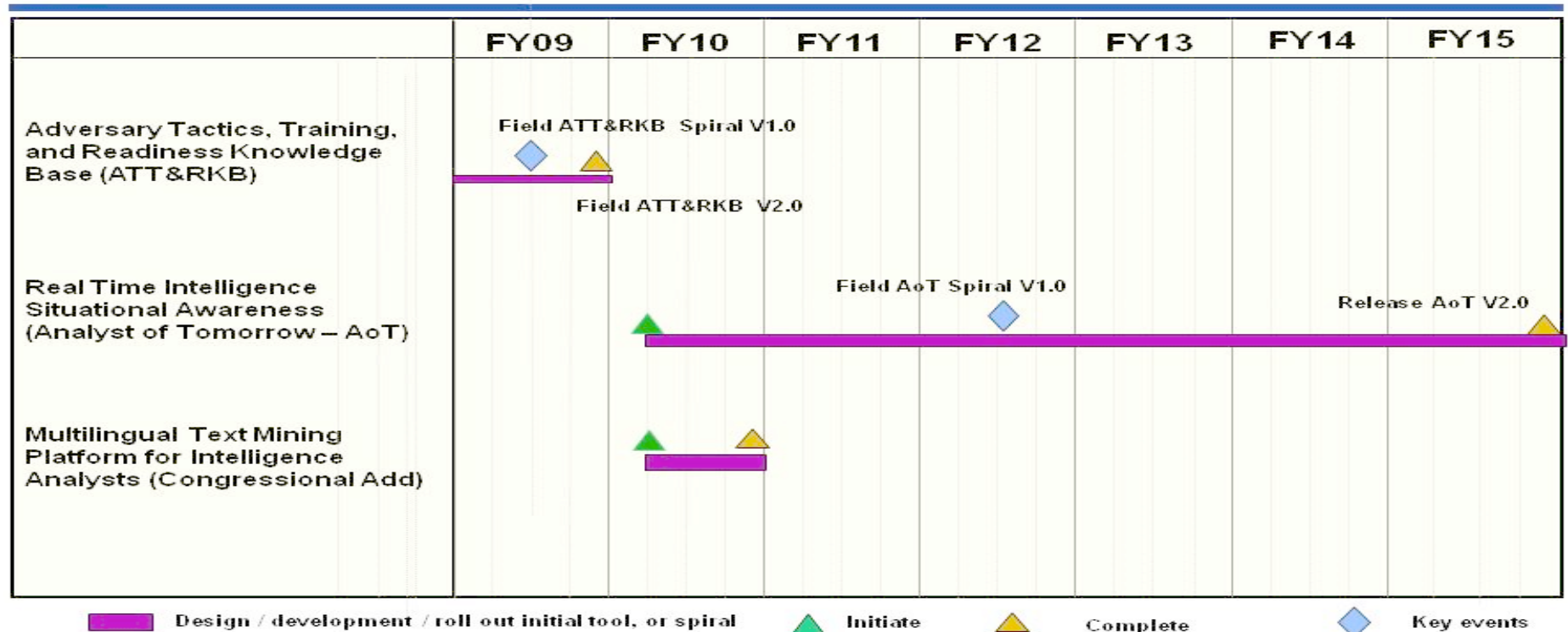
PE 0603260F: Intelligence Advanced Development

PROJECT

643482: Science & Tech Intelligence Methodology



Intelligence Advanced Development Program –Science & Tech Intelligence Methodology Schedule (BPAC 643482)



PB11 R-Docs

Depicted by installation/production flow

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603260F: Intelligence Advanced Development		PROJECT 643482: Science & Tech Intelligence Methodology	
Schedule Details				
	Start		End	
Event	Quarter	Year	Quarter	Year
Completed Adversary Tactics, Training, and Readiness Knowledge Base (ATT&RKB)	1	2009	4	2009
Continue Real Time Intelligence Situational Awareness (Analyst of Tomorrow - AoT)	2	2010	4	2011
Initiate MTMPIA (Congressional Add)	2	2010	4	2010

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