

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2007
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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604750F Intelligence Equipment
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Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	2.728	4.907	1.469	1.500	1.536	1.558	1.588	1.620	Continuing	TBD
2053 National Air Intel Center	2.728	4.907	1.469	1.500	1.536	1.558	1.588	1.620	Continuing	TBD

(U) A. Mission Description and Budget Item Justification

Intelligence Equipment (IE) Program performs the engineering development of software, and/or automated information analysis techniques (i.e., Information Superiority) to streamline the processing, integration, exploitation, display, and dissemination of strategic and tactical threat assessment intelligence information from the National Air and Space Intelligence Center (NASIC), Wright-Patterson AFB, OH and the Air Force Information Operations Center (AFIOC, formerly AF Information Warfare Center, AFIWC), Lackland AFB, San Antonio, TX.

IE provides continuing development and upgrades of threat analysis capabilities to produce integrated, predictive air and space intelligence to enable military operations, force modernization decisions, and policy making. IE both accelerates and increases the accuracy of threat estimates and system descriptions to deployed operational forces via Reachback. IE also provides clients with accurate, predictive, relevant, timely, and actionable intelligence that will support client processes, operational planning, and mission execution. Both NASIC and AFIOC are tasked with providing detailed foreign technology intelligence information to a variety of DOD and non-DOD customers. NASIC and AFIOC customers' requirements have become more sophisticated, dictating more detailed and timely intelligence not only in the technology regime but also in the economic, world crisis, and political arenas. IE develops and provides NASIC and AFIOC with the tools necessary to produce timely intelligence regarding performance and characteristics of foreign weapon systems and also develops the tools to model and assess foreign air and space systems operations.

This is the only AF program developing new or upgraded analysis, modeling and simulation tools focused on intelligence production in support of AF operational and developmental functions. IE directs the engineering and development of specialized software to conduct Information Operations with systems which process, integrate, display, and distribute intelligence data for the Air Intelligence Agency (AIA). In general, each of the development projects within the overall IE program portfolio transition technologies to the operational communities through the spin off of incremental upgrade versions to their end-users over a period of several years as the individual development projects progress towards their final complete full-up configuration. IE may reallocate existing resources to support out-of-cycle new/updated warfighter requirements for development of intelligence tools.

This effort is Budget Activity 5, System Demonstration and Development (SDD), because the program develops and inserts new technology into existing systems and models to keep existing systems current.

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	2.730	1.426	1.453	1.480
(U) Current PBR/President's Budget	2.728	4.907	1.469	1.500
(U) Total Adjustments	-0.002	3.500		
(U) Congressional Program Reductions				
Congressional Rescissions		-0.019		
Congressional Increases	-0.002	3.500		
Reprogrammings				
SBIR/STTR Transfer				

(U) **Significant Program Changes:**

FY07 Congressional Adds for Electronic Warfare Modelling and Simulation (\$2.2M) and for Hard and Deeply Buried Targets (\$1.3M).

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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0604750F Intelligence Equipment				PROJECT NUMBER AND TITLE 2053 National Air Intel Center		
Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
2053 National Air Intel Center	2.728	4.907	1.469	1.500	1.536	1.558	1.588	1.620	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

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IE provides continuing development and upgrades of threat analysis capabilities to produce integrated, predictive air and space intelligence to enable military operations, force modernization decisions, and policy making. IE both accelerates and increases the accuracy of threat estimates and system descriptions to deployed operational forces via Reachback. IE also provides clients with accurate, predictive, relevant, timely, and actionable intelligence that will support client processes, operational planning, and mission execution. Both NASIC and AFIOC are tasked with providing detailed foreign technology intelligence information to a variety of DOD and non-DOD customers. NASIC and AFIOC customers' requirements have become more sophisticated, dictating more detailed and timely intelligence not only in the technology regime but also in the economic, world crisis, and political arenas. IE develops and provides NASIC and AFIOC with the tools necessary to produce timely intelligence regarding performance and characteristics of foreign weapon systems and also develops the tools to model and assess foreign air and space systems operations.

This is the only AF program developing new or upgraded analysis, modeling and simulation tools focused on intelligence production in support of AF operational and developmental functions. IE directs the engineering and development of specialized software to conduct Information Operations with systems which process, integrate, display, and distribute intelligence data for the Air Intelligence Agency (AIA). In general, each of the development projects within the overall IE program portfolio transition technologies to the operational communities through the spin off of incremental upgrade versions to their end-users over a period of several years as the individual development projects progress towards their final complete full-up configuration. IE may reallocate existing resources to support out-of-cycle new/updated warfighter requirements for development of intelligence tools.

This effort is Budget Activity 5, System Demonstration and Development (SDD), because the program develops and inserts new technology into existing systems and models to keep existing systems current.

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Continue / Complete Terrain Map Comparison Tools for Hard and Deeply Buried Target-Detection (HDBT-D) (Includes parts of FY06/07 Congressional Adds for HDBT-D)	0.481	0.430		
(U) Continued / Complete MASINT Exploitation Technology Applications Facility (METAF) for HDBT / UGF Algorithm Development and Test	0.681	0.393		
(U) Continued / Complete Upgrade of TEL-SCOPE Tool with Expanded Operational Capability (EOC)	0.335	0.290	0.290	0.290

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(U) B. Accomplishments/Planned Program (\$ in Millions)	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Continued / Complete Phase 1 of Adaptive Signature Library (ASL) for HDBT-D (ASL for Paint Degradation) (Includes parts of FY06/07 Congressional Adds for HDBT-D)	0.480	0.430		
(U) Continued / Complete Phase 2 of ASL for HDBT-D (ASL for Seasonal Vegetation Changes) (Includes parts of FY06/07 Congressional Adds for HDBT-D)	0.481	0.430		
(U) Initiate / Complete Electronic Warfare Modelling & Simulation (FY07 Congressional Add for Idaho National Laboratory)		2.192		
(U) Initiated / Continue / Complete Integrated Air Defense System (IADS) -- TEL-SCOPE / Air Defense Net (ADNet) Machine-to-Machine (M2M) Integration	0.270	0.290	0.256	
(U) Initiate / Continue Radio Frequency (RF) Detection & Analysis Capabilities		0.452	0.340	0.340
(U) Initiate / Continue Electronic Warfare (EW) Flagging			0.483	0.575
(U) Initiate / Continue Project Theo (Automated Text Retrieval, Analysis, and Exploitation Capability)			0.100	0.295
(U) Total Cost	2.728	4.907	1.469	1.500

(U) C. Other Program Funding Summary (\$ in Millions)	<u>FY 2006</u>	<u>FY 2007</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>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Complete</u>							
(U) Not Applicable										

(U) **D. Acquisition Strategy**
 Requirements for new / upgraded intelligence analysis tools for NASIC and AFIOC are gathered and prioritized by the Air Intelligence Agency (AIA). Development of capabilities to meet those requirements is managed by the 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.

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Exhibit R-3, RDT&E Project Cost Analysis

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(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 2006 Cost</u>	<u>FY 2006</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2009</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
				<u>Cost</u>	<u>Award Date</u>									
(U) <u>Product Development</u> Terrain Map Comparison Tools for HDBT / UGF) Detection (HDBT / UGF - D) (Including parts of FY06 / 07 Congressional Adds for HDBT-D)	C/CPFF	CACI / MTL Systems Inc., Dayton, OH	0.336	0.481	Mar-06	0.430	Mar-07	0.000		0.000		0.000	1.247	1.247
MASINT Exploitation Technology Applications Facility (METAF) for HDBT / UGF Algorithm Development and Test	C/CPFF	Alion Science and Technology, Albuquerque, NM and Rome, NY	0.270	0.681	Mar-06	0.393	Nov-06	0.000		0.000		0.000	1.344	1.344
TEL-SCOPE Expanded Operational Capability (EOC)	C/CPFF & C/FFP	Prediction Systems, Inc., Spring Lake, NJ & Northrop Grumman Mission Systems, Fairborn, OH	0.100	0.335	Dec-05	0.290	Dec-06	0.290	Dec-07	0.290	Dec-08	0.000	1.305	1.305
Phase 1 of Adaptive Signature Library (ASL) for HDBT-D (ASL for Paint Degradation) (Including parts of FY06 / 07 Congressional Adds for HDBT-D)	C/CPFF	CACI / MTL Systems Inc., Dayton, OH	0.450	0.480	Mar-06	0.430	Mar-07	0.000		0.000		0.000	1.360	1.360
Phase 2 of ASL for HDBT-D (ASL for Seasonal Vegetation Changes) (Including parts of FY06 / FY07 Congressional Adds for HDBT-D)	C/CPFF	CACI / MTL Systems Inc., Dayton, OH	0.450	0.481	Mar-06	0.430	Mar-07	0.000		0.000		0.000	1.361	1.361
Electronic Warfare Modelling & Simulation (FY07 Congressional Add for Idaho National Laboratory)	MIPR	Idaho National Laboratory, Idaho Falls, ID	0.000	0.000		2.192	Feb-07	0.000		0.000		0.000	2.192	TBD
Integrated Air Defense System (IADS) Model / ADNet TEL-SCOPE M2M Integration	C/CPFF & C/FFP	Prediction Systems Inc, Spring Lake, NJ & BAE Systems, Burlington, MA &	0.000	0.270	Mar-06	0.290	Nov-06	0.256	Nov-07	0.000		0.000	0.816	0.816

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Project 2053

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		Northrop Grumman Mission Systems, Fairborn, OH											
Radio Frequency Detection & Analysis Capabilities	C/TBD	TBD	0.000	0.000	0.452	Mar-07	0.340	Nov-07	0.340	Nov-08	0.182	1.314	TBD
Electronic Warfare Flagging	C/TBD	TBD	0.000	0.000	0.000		0.483	Jan-08	0.575	Nov-08	2.766	3.824	TBD
Project Theo (Automated Text Retrieval, Analysis & Exploitation Capability)	C/TBD	TBD	0.000	0.000			0.100	Jan-08	0.295	Nov-08	1.323	1.718	TBD
Subtotal Product Development			1.606	2.728	4.907		1.469		1.500		4.271	16.481	TBD
Remarks:													
(U) Total Cost			1.606	2.728	4.907		1.469		1.500		4.271	16.481	TBD

Exhibit R-4, RDT&E Schedule Profile

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05 System Development and Demonstration (SDD)

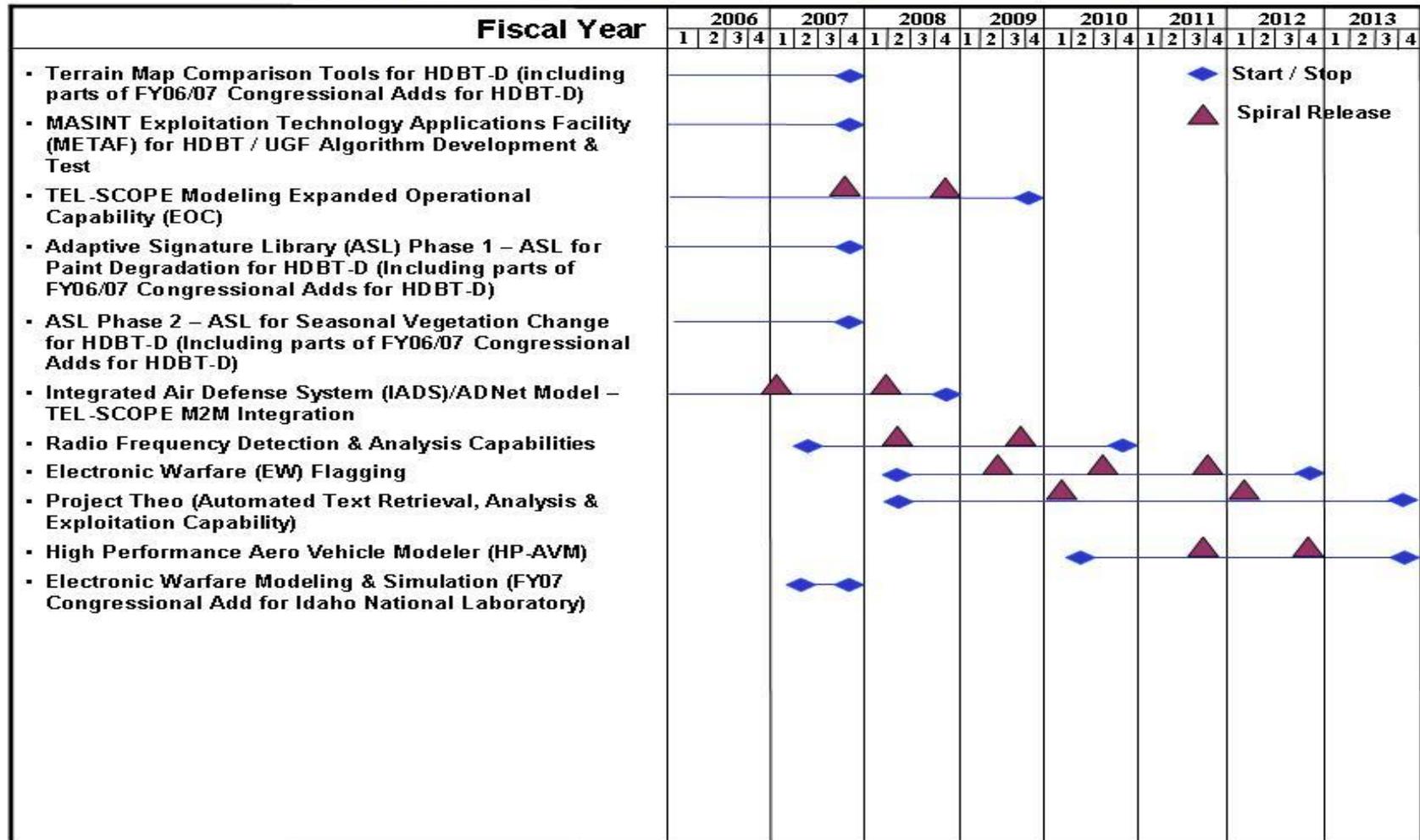
PE NUMBER AND TITLE

0604750F Intelligence Equipment

PROJECT NUMBER AND TITLE

2053 National Air Intel Center

Intelligence Equipment Program Schedule



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Exhibit R-4a, RDT&E Schedule Detail	DATE February 2007
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	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Schedule Profile				
(U) Continued / Complete Terrain Map Comparison Tools for HDBT-D (Includes parts of FY06 / 07 Congressional Adds for HDBT-D)	1-4Q	1-4Q		
(U) Continued / Complete MASINT Exploitation Technology Applications Facility (METAF) for HDBT / UGF Algorithm Development and Test	1-4Q	1-4Q		
(U) Continued / Complete TEL-SCOPE Expanded Operational Capability (EOC)	1-4Q	1-4Q	1-4Q	1-4Q
(U) Continued / Complete Phase 1 of Adaptive Signature Library (ASL) for HDBT-D (ASL for Paint Degradation) (Includes parts of FY06 / 07 Congressional Adds for HDBT-D)	1-4Q	1-4Q		
(U) Continued / Complete Phase 2 of ASL for HDBT-D (ASL for Seasonal Vegetation Changes) (Includes parts of FY06 / 07 Congressional Adds for HDBT-D)	1-4Q	1-4Q		
(U) Initiate / Complete Electronic Warfare Modelling & Simulation (FY07 Congressional Add for Idaho National Laboratory)		2-4Q		
(U) Initiated / Continue / Complete Integrated Air Defense System (IADS) Model--TEL-SCOPE / ADNET M2M Integration	2-4Q	1-4Q	1-4Q	
(U) Initiate / Continue Radio Frequency (RF) Detection & Analysis Capabilities		2-4Q	1-4Q	1-4Q
(U) Initiate / Continue Electronic Warfare (EW) Flagging			2-4Q	1-4Q
(U) Initiate / Continue Project Theo (Automated Text Retrieval, Analysis, and Exploitation Capability)			2-4Q	1-4Q