

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2004
---	------------------------------

BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604750F Intelligence Equipment
--	--

Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	1.277	2.290	1.349	1.362	1.387	1.409	1.431	Continuing	TBD
2053 National Air Intel Center	1.277	2.290	1.349	1.362	1.387	1.409	1.431	Continuing	TBD

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

Intelligence Equipment (IE) Program performs the engineering development of software, and/or automated information operations (IO) techniques 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 (NAIC), Wright-Patterson AFB, OH and the Air Force Information Warfare Center (AFIWC), 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, and policy making. IE accelerates threat estimates and system descriptions to deployed operational forces (via Reachback). IE also provides clients with accurate, predictive, relevant, and timely intelligence that will support client processes, operational planning, and mission execution.) Both the NAIC and AFIWC organizations are tasked with providing detailed foreign technology intelligence information to a variety of DOD and non-DOD customers. In the past few years, customers' requirements have been 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 provides NAIC and AFIWC with the tools necessary to produce timely intelligence of foreign weapon systems and develops the tools to model and assess foreign air and space systems. 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 / information for HQ Air Combat Command (ACC), the Air Intelligence Agency (AIA) -- primarily their NAIC and AFIWC subordinates.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Previous President's Budget	1.326	1.320	1.353
(U) Current PBR/President's Budget	1.277	2.290	1.349
(U) Total Adjustments	-0.049	0.970	
(U) Congressional Program Reductions	-0.009	-0.011	
Congressional Rescissions	-0.014	-0.019	
Congressional Increases		1.000	
Reprogrammings	-0.026		
SBIR/STTR Transfer			
(U) <u>Significant Program Changes:</u>			

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2004

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604750F Intelligence Equipment

Funding: Congressional \$1.0M add in FY04 for High Power Microwave Vulnerability Assessment (Follow on to FY02 Congressional Add for Radio Frequency Weapon Threat Assessment (RFWA) Program).

Exhibit R-2a, RDT&E Project Justification

DATE
February 2004

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 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
2053 National Air Intel Center	1.277	2.290	1.349	1.362	1.387	1.409	1.431	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

FY04 \$1.0M Congressional Increase for High Powered Microwave Vulnerability Assessment

(U) A. Mission Description and Budget Item Justification

Intelligence Equipment (IE) Program performs the engineering development of software, and/or automated information operations (IO) techniques 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 (NAIC), Wright-Patterson AFB, OH and the Air Force Information Warfare Center (AFIWC), 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, and policy making. IE accelerates threat estimates and system descriptions to deployed operational forces (via Reachback). IE also provides clients with accurate, predictive, relevant, and timely intelligence that will support client processes, operational planning, and mission execution.) Both the NAIC and AFIWC organizations are tasked with providing detailed foreign technology intelligence information to a variety of DOD and non-DOD customers. In the past few years, customers' requirements have been 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 provides NAIC and AFIWC with the tools necessary to produce timely intelligence of foreign weapon systems and develops the tools to model and assess foreign air and space systems. 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 / information for HQ Air Combat Command (ACC), the Air Intelligence Agency (AIA) -- primarily their NAIC and AFIWC subordinates.

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 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Continued High Speed Engine Propulsion Tools (Continue Phase 1: Pulsed-Detonation Engine Model)	0.180		
(U) Continued High Speed Engine Propulsion Tools (Continue Phase 2: Air-Turbo-Rocket Engine Model)	0.037		
(U) Suspended High Speed Engine Propulsion Tools (Continue Phase 3: Turbo-Ramjet Engine Model)	0.000		
(U) Continued Standard Visualization Solution (SVS) - IVIEW 2000 Upgrade/JView	0.130		
(U) Continued Missile System Upgrades (Phase 3: CRMPS [Computer Requirements Model for Payload Study])	0.180		
(U) Continued Missile System Upgrades (Phase 4: BRACE [Ballistic Reentry Vehicle Accuracy Estimate])	0.240		
(U) Continued Advanced Analysis Capabilities (AAC) -- Integrated Avionics Support (IAS)	0.380		
(U) Initiated Laser Weapons (LODUR) Threat Assessment Tool	0.130		
(U) Continue High Speed Engine Propulsion Tools (Continue Phase 1: Pulsed-Detonation Engine Model)		0.040	
(U) Continue High Speed Engine Propulsion Tools (Continue Phase 2: Air-Turbo-Rocket Engine Model)		0.050	
(U) Suspend High Speed Engine Propulsion Tools (Continue Phase 3: Turbo-Ramjet Engine Model)		0.000	

Exhibit R-2a, RDT&E Project Justification	DATE February 2004
--	------------------------------

BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604750F Intelligence Equipment	PROJECT NUMBER AND TITLE 2053 National Air Intel Center
---	---	---

(U) Continue Standard Visualization Solution (SVS) - IVIEW 2000 Upgrade/JView	0.050		
(U) Continue Missile System Upgrades (Phase 3: CRMPS [Computer Requirements Model for Payload Study])	0.130		
(U) Continue Missile System Upgrades (Phase 4: BRACE [Ballistic Reentry Vehicle Accuracy Estimate])	0.130		
(U) Continued Advanced Analysis Capabilities (AAC) -- Integrated Avionics Support (IAS)	0.160		
(U) Continue Laser Weapons (LODUR) Threat Assessment Tool	0.220		
(U) Initiate High Speed Engine Propulsion Tools (Phase 4: SCRAM Jet Engine Model)	0.260		
(U) Initiate Analysis & Exploitation of Underground Facilities / Hardened, Deeply- Buried Targets (UGF / HDBT)Using Hyperspectral and MASINT Tools	0.050		
(U) Initiate Terrain Map Comparison Tools for UGF/HDBT	0.050		
(U) Initiate Upgrade of Tel-Scope Tool with Enhanced Operational Capability (EOC)	0.150		
(U) Initiate High Power Microwave Vulnerability (HPMV) Assessment (Congressional Add FY04)	1.000		
(U) Complete Missile System Upgrades (Phase 3: CRMPS [Computer Requirements Model for Payload Study])			0.060
(U) Complete Missile System Upgrades (Phase 4: BRACE [Ballistic Reentry Vehicle Accuracy Estimate])			0.060
(U) Continue High Speed Engine Propulsion Tools (Phase 1: Pulsed-Detonation Engine Model)			0.010
(U) Continue High Speed Engine Propulsion Tools (Continue Phase 2: Air-Turbo-Rocket Engine Model)			0.010
(U) Re-Initiate High Speed Engine Propulsion Tools (Re-Initiate Phase 3: Turbo-Ramjet Engine Model)			0.010
(U) Continue High Speed Engine Propulsion Tools (Phase 4: Continue SCRAM Jet Engine Model)			0.210
(U) Continue Standard Visualization Solution (SVS) - IVIEW 2000 Upgrade/JView			0.039
(U) Continue Advanced Analysis Capabilities (AAC) -- Integrated Avionics Support (IAS)			0.100
(U) Continue Laser Weapons (LODUR) Threat Assessment Tool			0.150
(U) Continue Analysis & Exploitation of Underground Facilities / Hardened, Deeply- Buried Targets (UGF / HDBT)Using Hyperspectral and MASINT Tools			0.225
(U) Continue Terrain Map Comparison Tools for UGF/HDBT			0.225
(U) Continue Upgrade of Tel-Scope Tool with Enhanced Operational Capability (EOC)			0.250
(U) Total Cost		1.277	2.290
			1.349

(U) C. Other Program Funding Summary (\$ in Millions)									
	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	

(U) Not Applicable

(U) D. Acquisition Strategy
All major contracts are awarded after full and open competition.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis										DATE February 2004		
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)					PE NUMBER AND TITLE 0604750F Intelligence Equipment					PROJECT NUMBER AND TITLE 2053 National Air Intel Center		
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2003</u> <u>Cost</u>	<u>FY</u> <u>2003</u> <u>Cost</u>	<u>FY</u> <u>2003</u> <u>Award</u> <u>Date</u>	<u>FY</u> <u>2004</u> <u>Cost</u>	<u>FY</u> <u>2004</u> <u>Award</u> <u>Date</u>	<u>FY</u> <u>2005</u> <u>Cost</u>	<u>FY</u> <u>2005</u> <u>Award</u> <u>Date</u>	<u>Cost to Complete</u>	<u>Total</u> <u>Cost</u>	<u>Target</u> <u>Value of</u> <u>Contract</u>
(U) <u>Product Development</u>												
Sterling Software, Inc. & Northrup-Grumman IT -- Phase 1: High Speed Propulsion / Pulsed Detonation	C/CPFF		0.185	0.180	Feb-03	0.040	Jul-04	0.010	Jul-05	0.010	0.425	0.425
SAIC -- Phase 2: High Speed Propulsion / C/IDIQ/CPFF Air Turbo Rocket (ATR)			0.250	0.037	Jul-03	0.050	Jul-04	0.010	Jul-05	0.010	0.357	0.357
Contractor TBD -- Phase 3: High Speed Propulsion / Turbo-Ramjet	C/CPFF		0.000	0.000		0.000		0.010	Jul-05	0.100	0.110	0.110
Pratt & Whitney -- Phase 4: High Speed Propulsion / Scram-Jet	C/CPFF		0.000	0.000		0.260	Dec-03	0.210	Dec-04	0.200	0.670	0.670
Northrup-Grumman IT -- Missile System / C/CPFF Phase 3: (CRMPS)			0.300	0.180	Nov-02	0.130	Nov-03	0.060	Nov-04	0.000	0.670	0.670
Northrup-Grumman IT -- Missile System / C/CPFF Phase 4: (BRACE)			0.300	0.240	Nov-02	0.130	Nov-03	0.060	Nov-04	0.000	0.730	0.730
PAR Government Systems & AFRL/IFSB (In-House) -- I-VIEW 2000 Upgrade/J-View SVS	C/CPFF		0.300	0.130	Nov-02	0.050	Nov-03	0.039	Nov-04	0.500	1.019	1.019
Northrup-Grumman IT -- Advanced Analysis Capability: Integrated Avionics Support Model	C/CPFF		0.200	0.380	Apr-03	0.160	Nov-03	0.100	Nov-04	0.500	1.340	1.340
Applied Science Laboratories (ASL) -- Laser Weapons (LODUR) Threat Assessment Tool	C/CPFF		0.000	0.130	May-03	0.220	Nov-03	0.150	Nov-04	0.250	0.750	0.750
MTL Systems Inc. -- Analysis & Exploitation. of Underground Facilities / Hardened, Deeply-Buried Targets (UGF/HDBT) Using Hyperspectral & MASINT Tools	C/CPFF		0.000	0.000		0.050	May-04	0.225	Nov-04	0.730	1.005	1.005
Sandia National Laboratory -- Terrain Map Comparison (UGF/HDBT) Tools	C/MIPR		0.000	0.000		0.050	May-04	0.225	Nov-04	0.700	0.975	0.975

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis							DATE February 2004		
BUDGET ACTIVITY			PE NUMBER AND TITLE			PROJECT NUMBER AND TITLE			
05 System Development and Demonstration (SDD)			0604750F Intelligence Equipment			2053 National Air Intel Center			
Prediction Systems, Inc. -- Tel-Scope Enhanced Operational Capability (EOC)	C/FFP		0.000	0.000	0.150 Dec-03	0.250 Dec-04	0.750	1.150	1.150
Applied Sciences Laboratories, Inc. -- High Power Microwave Vulnerability Assessment Tool (Congressional Add FY04)	C/CPFF		0.000	0.000	1.000 May-04	0.000	0.000	1.000	1.000
Subtotal Product Development			1.535	1.277	2.290	1.349	3.750	10.201	10.201
Remarks:									
(U) Total Cost			1.535	1.277	2.290	1.349	3.750	10.201	10.201

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2004

BUDGET ACTIVITY

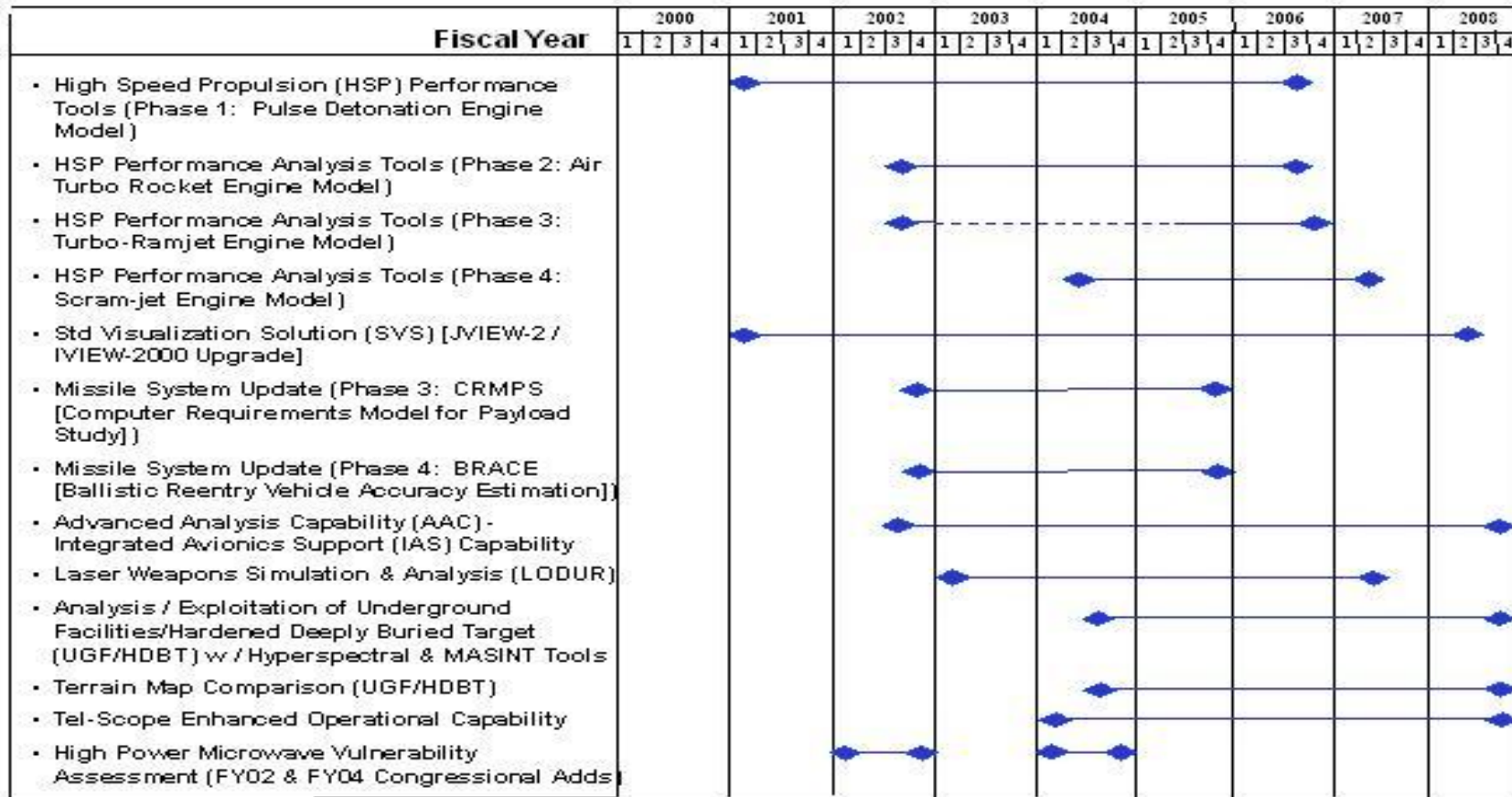
05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

0604750F Intelligence Equipment

PROJECT NUMBER AND TITLE

2053 National Air Intel Center



UNCLASSIFIED

Exhibit R-4a, RDT&E Schedule Detail		DATE February 2004		
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT NUMBER AND TITLE		
05 System Development and Demonstration (SDD)	0604750F Intelligence Equipment	2053 National Air Intel Center		
		<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Schedule Profile				
(U) Continue High Speed Propulsion (HSP) Engine Propulsion Tools (Phase 1: Pulsed Detonated Engine Model)		1-4Q	1-4Q	1-4Q
(U) Continue High Speed Propulsion (HSP) Engine Propulsion Tools (Phase 2: Air-Turbo-Rocket Engine Model)		1-4Q	1-4Q	1-4Q
(U) Re-Initiate High Speed Propulsion (HSP) Engine Propulsion Tools (Phase 3: Turbo-Ramjet Engine Model)				3Q
(U) Initiate High Speed Propulsion (HSP) Engine Propulsion Tools (Phase 4: SCRAM Jet Engine Model)			1Q	
(U) Continue High Speed Propulsion (HSP) Engine Propulsion Tools (Phase 4: SCRAM Jet Engine Model)				1-4Q
(U) Continue Standard Visualization Solution (SVS) I-VIEW 2000 Upgrade / J-VIEW		1-4Q	1-4Q	1-4Q
(U) Continue Missile System Upgrades (Phase 3: CRMPS [Computer Requirements Model for Payload Study])		1-4Q	1-4Q	1-4Q
(U) Complete Missile System Upgrades (Phase 3: CRMPS [Computer Requirements Model for Payload Study])				4Q
(U) Continue Missile System Upgrades (Phase 4: BRACE [Ballistic Reentry Vehicle Accuracy Estimate])		1-4Q	1-4Q	1-4Q
(U) Complete Missile System Upgrades (Phase 4: BRACE [Ballistic Reentry Vehicle Accuracy Estimate])				4Q
(U) Advanced Analysis Capabilities (AAC) -- Integrated Avionics Support (IAS)		1-4Q	1-4Q	1-4Q
(U) Initiate Laser Weapons (LODUR) Threat Assessment Tool		3Q		
(U) Continue Laser Weapons (LODUR) Threat Assessment Tool			1-4Q	1-4Q
(U) Initiate Analysis and Exploitation of UGF / HDBT with Hyperspectral & MASINT Tools			4Q	
(U) Continue Analysis and Exploitation of UGF / HDBT with Hyperspectral & MASINT Tools				1-4Q
(U) Initiate Terrain Map Comparison (UGF / HDBT)			4Q	
(U) Continue Terrain Map Comparison (UGF / HDBT)				1-4Q
(U) Initiate Tel-Scope Expanded Operational Capability (Space Communications Using Terrestrial Links)			1Q	
(U) Continue Tel-Scope Expanded Operational Capability (Space Communications Using Terrestrial Links)				1-4Q
(U) Initiate / Complete High Power Microwave Vulnerability Assessment (Congressional Add FY04)			1-4Q	