

**UNCLASSIFIED**

PE NUMBER: 0603260F  
 PE TITLE: Intelligence Advanced Development

<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>	<b>DATE</b> <b>February 2004</b>
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<b>BUDGET ACTIVITY</b> <b>04 Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>PE NUMBER AND TITLE</b> <b>0603260F Intelligence Advanced Development</b>
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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	7.144	4.453	4.612	4.655	4.740	4.812	4.893	0.000	0.000
3479 Advanced Sensor Exploitation	3.525	0.785	0.830	0.838	0.853	0.871	0.898	0.000	0.000
3480 Automated Imagery Exploitation	1.297	1.297	1.336	1.348	1.372	1.391	1.408	0.000	0.000
3481 Knowledge Based Tech For Intelligence	1.290	1.320	1.361	1.374	1.399	1.417	1.435	0.000	0.000
3482 Science & Tech Intelligence Methodology	1.032	1.051	1.085	1.095	1.116	1.133	1.152	0.000	0.000

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

(U) 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. Air Force Research Lab Rome Research Site (AFRL/IFE) works directly with users, employing a rapid prototyping evolutionary approach, integrating finished modules directly into the field. The programs are oriented toward specific shortfalls and deficiencies as documented by the major commands (MAJCOMS), combatant commands, and intelligence organizations in their mission and functional area plans. The goal of this program is to expedite technology transition from the laboratory to operational use via rapid prototyping. This AF program is focused on technology insertion to correct AF intelligence deficiencies at tactical and operational levels. This program bridges the transition of new technologies from Advanced Technology Demonstrations (ATDs) and Integrated Technology Thrust Programs (ITTPs) into current/new systems), and also supports the associated Defense Technology Objectives (DTOs).

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.

## Exhibit R-2, RDT&amp;E Budget Item Justification

DATE

February 2004

BUDGET ACTIVITY

**04 Advanced Component Development and Prototypes (ACD&P)**

PE NUMBER AND TITLE

**0603260F Intelligence Advanced Development****(U) B. Program Change Summary (\$ in Millions)**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Previous President's Budget	4.422	4.513	4.624
(U) Current PBR/President's Budget	7.144	4.453	4.612
(U) Total Adjustments	2.722	-0.060	
(U) Congressional Program Reductions		-0.022	
Congressional Rescissions		-0.038	
Congressional Increases			
Reprogrammings	2.722		
SBIR/STTR Transfer			
(U) <u>Significant Program Changes:</u>			
FY 2003 increases were to fund additional PE efforts in support of CSAF-directed Kill Chain Enhancement Initiative			

**Exhibit R-2a, RDT&E Project Justification**

DATE  
**February 2004**

BUDGET ACTIVITY <b>04 Advanced Component Development and Prototypes (ACD&amp;P)</b>				PE NUMBER AND TITLE <b>0603260F Intelligence Advanced Development</b>			PROJECT NUMBER AND TITLE <b>3479 Advanced Sensor Exploitation</b>			
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	
3479 Advanced Sensor Exploitation	3.525	0.785	0.830	0.838	0.853	0.871	0.898	0.000	0.000	
Quantity of RDT&E Articles	0	0	0	0	0	0	0			

FY03 includes funding increases for CSAF-directed Kill Chain Enhancement Initiative

**(U) 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) within seconds/minutes as opposed to hours/days with current manual 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, and IMINT; providing faster situational awareness and threat assessment, and replace manual systems with automated capabilities.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Complete Enhanced Intel Prep of the Battlespace (EIPB)	0.095		
(U) Complete Moving Target Information Exploitation (MTIX) Tracking Enhancements	0.346		
(U) Initiate Advanced Fusion Workstation (AFWS)	0.216		
(U) Initiate Predictive Battlespace Awareness (PBA) Fusion 2+	0.146		
(U) Initiate Kill Chain Enhancement Initiative, Joint Targetting Toolbox Element	2.722		
(U) Complete Advanced Fusion Workstation (AFWS)		0.409	
(U) Continue Predictive Battlespace Awareness (PBA) Fusion 2+		0.376	0.830
(U) Total Cost	3.525	0.785	0.830

**(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) AF RDT&E									
(U) Other APPN									
None									

**(U) D. Acquisition Strategy**

All major contracts within this project were awarded after full and open competition.

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Exhibit R-3, RDT&E Project Cost Analysis										DATE February 2004		
BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P)					PE NUMBER AND TITLE 0603260F Intelligence Advanced Development					PROJECT NUMBER AND TITLE 3479 Advanced Sensor Exploitation		
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total</u> Prior to FY 2003 Cost	<u>FY</u> 2003 Cost	<u>FY</u> 2003 Award Date	<u>FY</u> 2004 Cost	<u>FY</u> 2004 Award Date	<u>FY</u> 2005 Cost	<u>FY</u> 2005 Award Date	<u>Cost to Complete</u>	<u>Total</u> Cost	<u>Target</u> Value of Contract
(U) <u>Product Development</u>												
Zel-Tech, Inc. -- Enhanced Intelligence Preparation of the Battlespace	C/CPFF		0.793	0.100	Nov-02	0.000		0.000		0.000	0.893	0.893
Northrop-Grumman Corp. -- Moving Target Information eXploitation (MTIX)	C/CPFF		0.103	0.250	Nov-02	0.000		0.000		0.000	0.353	0.353
Northrop-Grumman Corp. -- Advanced Fusion Workstation (AFWS)	C/CPFF		0.000	0.278	Mar-03	0.465	Nov-03	0.000		0.000	0.743	0.743
Zel-Tec, Inc. -- Predictive Battlespace Awareness (PBA)	C/CPFF		0.200	0.175	Nov-02	0.320	Nov-03	0.830	Nov-04	0.838	2.363	2.363
Northrop-Grumman Corp. -- Joint Targeting Toolbox	C/CPFF		0.850	2.722	Jan-03	0.000		0.000		0.000	3.572	3.572
Subtotal Product Development			1.946	3.525		0.785		0.830		0.838	7.924	7.924
Remarks:												
(U) Total Cost			1.946	3.525		0.785		0.830		0.838	7.924	7.924

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2004

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0603260F Intelligence Advanced Development

PROJECT NUMBER AND TITLE

3479 Advanced Sensor Exploitation

Fiscal Year	2001				2002				2003				2004				2005				2006				2007				2008				2009			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<u>Advanced Sensor Exploitation</u>																																				
<u>(BPAC 3479) Efforts</u>																																				
- Enhanced Intel Preparation of the Battlespace	◆								◆																											
- Moving Target Information Exploitation (MTIX) Enhancements	◆								◆																											
- Advanced Fusion Work Station									◆				◆																							
- Predictive Battlespace Awareness Fusion 2+									◆				◆				◆																			
- Joint Targeting Toolbox—Kill Chain Enhancement Initiative					◆				◆				◆																							

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<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>February 2004</b>
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<b>BUDGET ACTIVITY</b> <b>04 Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>PE NUMBER AND TITLE</b> <b>0603260F Intelligence Advanced Development</b>	<b>PROJECT NUMBER AND TITLE</b> <b>3479 Advanced Sensor Exploitation</b>
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<b>(U) <u>Schedule Profile</u></b>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Complete Enhanced Intel Prep of the Battlespace (EIPB)	4Q		
(U) Complete Moving Target Information Exploitation (MTIX) Tracking Enhancements	4Q		
(U) Initiate Advanced Fusion Work Station (AFWS)	1Q		
(U) Complete Advanced Fusion Work Station (AFWS)		4Q	
(U) Initiate Predictive Battlespace Awareness (PBA) Fusion 2+	3Q		
(U) Continue Predictive Battlespace Awareness (PBA) Fusion 2+		1-4Q	1-4Q
(U) Joint Targeting Toolbox - Kill Chain Enhancement Initiative	1-4Q		

**Exhibit R-2a, RDT&E Project Justification**

DATE  
**February 2004**

BUDGET ACTIVITY <b>04 Advanced Component Development and Prototypes (ACD&amp;P)</b>				PE NUMBER AND TITLE <b>0603260F Intelligence Advanced Development</b>			PROJECT NUMBER AND TITLE <b>3480 Automated Imagery Exploitation</b>			
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	
3480 Automated Imagery Exploitation	1.297	1.297	1.336	1.348	1.372	1.391	1.408	0.000	0.000	
Quantity of RDT&E Articles	0	0	0	0	0	0	0			

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

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.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Complete NATO Secondary Imagery Interoperability	0.202		
(U) Complete eXploitation Tools for Video (XTV)	0.298		
(U) Initiate/Complete Metadata Archival & Retrieval System (MARS) Geospacial Intel Tools	0.198		
(U) Initiate/Complete Hypershops/Imagery Viewer	0.175		
(U) Initiate/Complete Video Annotation/Imagery Viewer	0.148		
(U) Initiate Imagery Assurance and Exploitation	0.276		
(U) Continue Imagery Assurance and Exploitation		0.144	
(U) Initiate Distributed Common Ground Systems (DCGS) Video Processing Capability (VPC)		0.344	
(U) Initiate J-View Integration into AF Research Laboratory (AFRL) Imagery Viewer		0.194	
(U) Initiate Map-Based Interface to Geospacial Product Library Client		0.194	
(U) Initiate UAV Motion Imagery Exploitation (MIE)		0.421	
(U) Complete Imagery Assurance and Exploitation			0.150
(U) Complete Distributed Common Ground Systems (DCGS) Video Processing Capability (VPC)			0.100
(U) Complete J-View Integration into AFRL Imagery Viewer			0.150
(U) Complete Map-Based Interface to Geospacial Product Library Client			0.150
(U) Continue UAV Motion Imagery Exploitation (MIE)			0.377
(U) Initiate Dynamic Motion Imagery Annotation & Exploitation Tools			0.200
(U) Initiate Operational Imagery Protection and Authentication			0.209
(U) Total Cost	1.297	1.297	1.336

Exhibit R-2a, RDT&E Project Justification

DATE

February 2004

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0603260F Intelligence Advanced Development

PROJECT NUMBER AND TITLE

3480 Automated Imagery Exploitation

(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) AF RDT&E

(U) Other APPN

None

(U) **D. Acquisition Strategy**

All major contracts within this project were awarded after full and open competition.

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Exhibit R-3, RDT&E Project Cost Analysis										DATE February 2004			
BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P)					PE NUMBER AND TITLE 0603260F Intelligence Advanced Development					PROJECT NUMBER AND TITLE 3480 Automated Imagery Exploitation			
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	Contract Method & Type	Performing Activity & Location	Total	FY	FY	FY	FY	FY	FY	Cost to	Total	Target	
			Prior to FY 2003 Cost	2003 Cost	2003 Award Date	2004 Cost	2004 Award Date	2005 Cost	2005 Award Date	Complete	Cost	Value of Contract	
(U) Product Development													
PAR Government Systems Corp. -- NATOC/CPFF Secondary Imagery Interoperability			0.050	0.202	Nov-03	0.000			0.000		0.000	0.252	0.350
PAR Government Systems Corp. -- eXploitation Tools for Video (XTV)	C/CPFF		0.200	0.298	Nov-03	0.000			0.000		0.000	0.498	0.498
PAR Government Systems Corp. -- Metadata Archival & Retrieval System (MARS)	C/CPFF		0.150	0.198	Nov-03	0.000			0.000		0.000	0.348	0.348
PAR Government Systems Corp. -- AFRL Hypershops Imagery Viewer (AIV) and Video Annotation/Imagery Viewer	C/CPFF		0.000	0.323	Nov-03	0.000			0.000		0.000	0.323	0.323
PAR Government Systems Corp. -- Imagery Assurance and Exploitation Contractor TBD -- Distributed Common Ground Systems (DCGS) Video Processing Capability (VPC) Video Annotation Capability	C/CPFF		0.000	0.276	Nov-03	0.144	Nov-03	0.150	Nov-04		0.000	0.570	0.570
Contractor TBD -- J-View Integration into AFRL Imagery Viewer	C/CPFF			0.000		0.344	Mar-04	0.100	Nov-04		0.000	0.444	0.444
Contractor TBD -- Map-Based Interface for Geospatial Product Library Client	C/CPFF		0.000	0.000		0.194	Mar-04	0.150	Nov-04		0.000	0.344	0.344
Contractor TBD -- UAV Motion Imagery Exploitation (MIE)	C/CPFF		0.000	0.000		0.421	Mar-04	0.377	Nov-04		0.400	1.198	1.198
Contractor TBD -- Dynamic Motion Imagery Annotation & Exploitation Tools	C/CPFF		0.000	0.000		0.000		0.200	Mar-05		0.498	0.698	0.698
Contractor TBD -- Operational Imagery Protection and Authentication	C/CPFF		0.000	0.000		0.000		0.209	Mar-05		0.450	0.659	0.658
Subtotal Product Development			0.400	1.297		1.297		1.336			1.348	5.678	5.775
Remarks:													

Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2004

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0603260F Intelligence Advanced Development

PROJECT NUMBER AND TITLE

3480 Automated Imagery Exploitation

(U) Total Cost

0.400 1.297 1.297 1.336 1.348 5.678 5.775

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2004

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0603260F Intelligence Advanced Development

PROJECT NUMBER AND TITLE

3480 Automated Imagery Exploitation

Fiscal Year	2001				2002				2003				2004				2005				2006				2007				2008				2009			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b><i>Automated Imagery Exploitation (BPAC 3480)</i></b>																																				
- NATO Secondary Imagery Interoperability	◆											◆																								
- eXploitation Tools for Video (XTV)	◆											◆																								
- Metadata Archival & Retrieval System (MARS) Geospacial Intel Tools									◆				◆																							
- Hypershops/Imagery Viewer									◆				◆																							
- Video Annotation/Imagery Viewer									◆				◆																							
- Imagery Assurance & Exploitation									◆				◆				◆																			
- Distributed Common Ground Systems (DCGS) Video Processing Capability (VPC)													◆				◆																			
- J-View Integration into AFRL Imagery Viewer																	◆				◆															
- Map-Based Interface for Geospacial Product Library Client																	◆				◆				◆											
- UAV Motion Imagery Exploitation (MIE)													◆				◆				◆				◆											
- Dynamic Motion Imagery Annotation Exploitation Tools																	◆				◆				◆				◆							
- Operational Imagery Protection and Authentication																	◆				◆				◆				◆							

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<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>February 2004</b>
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<b>BUDGET ACTIVITY</b> <b>04 Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>PE NUMBER AND TITLE</b> <b>0603260F Intelligence Advanced Development</b>	<b>PROJECT NUMBER AND TITLE</b> <b>3480 Automated Imagery Exploitation</b>
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<b>(U) <u>Schedule Profile</u></b>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Complete NATO Secondary Imagery Interoperability	4Q		
(U) Complete eXploitation Tools for Video	4Q		
(U) Initiate/Complete Metadata Archival & Retrieval System (MARS) Geospacial Intel Tools	1-4Q		
(U) Initiate/Complete Hypershop/Imagery Viewer	1-4Q		
(U) Initiate/Complete Video Annotation/Imagery Viewer	1-4Q		
(U) Initiate Imagery Assurance & Exploitation	2Q		
(U) Initiate Distributed Common Ground Systems (DCGS) Video Processing Capability (VPC)		2Q	
(U) Initiate J-View Integration into AFRL Imagery Viewer		2Q	
(U) Initiate Map-Based Interface for Geospacial Product Library Client		2Q	
(U) Initiate UAV Motion Imagery Exploitation (MIE)		1Q	
(U) Continue Imagery Assurance & Exploitation		1-4Q	
(U) Complete Imagery Assurance & Exploitation			4Q
(U) Complete Map-Based Interface for Geospacial Product Library Client			4Q
(U) Complete J-View Integration into AFRL Imagery Viewer			4Q
(U) Complete Distributed Common Ground Systems (DCGS) Video Processing Capability (VPC)			4Q
(U) Continue UAV Motion Imagery Exploitation (MIE)			1-4Q
(U) Initiate Dynamic Motion Imagery Annotation Exploitation Tools			2Q
(U) Initiate Operational Imagery Protection and Authentication			2Q

## Exhibit R-2a, RDT&amp;E Project Justification

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BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT NUMBER AND TITLE		
<b>04 Advanced Component Development and Prototypes (ACD&amp;P)</b>				<b>0603260F Intelligence Advanced Development</b>			<b>3481 Knowledge Based Tech For Intelligence</b>		
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
3481 Knowledge Based Tech For Intelligence	1.290	1.320	1.361	1.374	1.399	1.417	1.435	0.000	0.000
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

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

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. 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.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Completed Broadsword Enhancements	0.302		
(U) Completed WebTAS Transition into the Combined Air Operations Center Experimental (CAOC-X)	0.137		
(U) Initiate/Complete Web-Based Messaging Application (WMA)	0.288		
(U) Continued Trusted Transfer Agent (TTA) -- Continue Phase 2, Reach Up	0.258		
(U) Continued Trusted Transfer Agent (TTA) -- Initiate Phase 3, Starguard	0.105		
(U) Initiate Infrastructure Operations Tool Access/Secure Intelligence Data Enterprise (IOTA/SIDEARM)	0.200		
(U) Continue Trusted Transfer Agent (TTA) -- Complete Phase 2, Reach Up		0.205	
(U) Continue Trusted Transfer Agent (TTA) -- Continue Phase 3, Starguard		0.342	
(U) Initiate Counter Terrorism / Information Operations (CT / IO) Target Data Access		0.331	
(U) Initiate High Throughput Imagery Guard (H-TIG)		0.142	
(U) Initiate Multi Information Domain Access Web Server (MIDAS)		0.200	
(U) Continue IOTA/SIDEARM		0.100	
(U) Complete Trusted Transfer Agent (TTA) -- Complete Phase 3, Starguard			0.250
(U) Continue IOTA/SIDEARM			0.100
(U) Continue Counter Terrorism / Information Operations (CT / IO) Target Data Access			0.200
(U) Continue High Throughput Imagery Guard (H-TIG)			0.250
(U) Continue Multi Information Domain Access Web Server (MIDAS)			0.331
(U) Initiate Enterprise Workflow Management			0.230
(U) Total Cost	1.290	1.320	1.361

## Exhibit R-2a, RDT&amp;E Project Justification

DATE

February 2004

BUDGET ACTIVITY

**04 Advanced Component Development and Prototypes (ACD&P)**

PE NUMBER AND TITLE

**0603260F Intelligence Advanced  
Development**

PROJECT NUMBER AND TITLE

**3481 Knowledge Based Tech For  
Intelligence****(U) C. Other Program Funding Summary (\$ in Millions)****(U) D. Acquisition Strategy**

All major contracts within this project were awarded after full and open competition.

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis										DATE <b>February 2004</b>		
BUDGET ACTIVITY <b>04 Advanced Component Development and Prototypes (ACD&amp;P)</b>					PE NUMBER AND TITLE <b>0603260F Intelligence Advanced Development</b>					PROJECT NUMBER AND TITLE <b>3481 Knowledge Based Tech For Intelligence</b>		
<u>(U) Cost Categories</u>	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total Prior to FY 2003 Cost</u>	<u>FY 2003 Cost</u>	<u>FY 2003 Award Date</u>	<u>FY 2004 Cost</u>	<u>FY 2004 Award Date</u>	<u>FY 2005 Cost</u>	<u>FY 2005 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u>												
Synectics Corp. -- Broadsword Enhancements	C/CPFF		0.300	0.302	Nov-02	0.000		0.000		0.000	0.602	0.602
Northrup Grumman, Logicon & Intelligent Software Solutions, Inc. -- WebTAS Transition into Consolidated Air Operations Center-Experimental (CAOC-X)	C/CPFF		0.100	0.137	Nov-02	0.000		0.000		0.000	0.237	0.237
Northrup Grumman -- Web-Based Messaging Application (WMA)	C/CPFF		0.000	0.288	Mar-03	0.000		0.000		0.000	0.288	0.288
Dolphin Technology, Inc. -- Trusted Transfer Agent (TTA) Phase 2 - Reach U <sub>F</sub>	C/IDIQ		0.100	0.258	Nov-02	0.205	Nov-03	0.000		0.000	0.563	0.563
Dolphin Technology, Inc. -- Trusted Transfer Agent (TTA) Phase 3 - Secure Trusted Automated Routing (STAR) Guard	C/IDIQ		0.000	0.105	Mar-03	0.342	Nov-03	0.250	Nov-04	0.000	0.697	0.697
Northrup Grumman -- Information Operations Tool Access (IOTA) / Secure Intelligence Data Enterprise-Aware Repository Middleware (SIDEARM)	C/IDIQ		0.000	0.200	Mar-03	0.100	Nov-03	0.100	Nov-04	0.000	0.400	0.400
Northrup Grumman -- Counter Terrorism /Information (CT / IO) Operations Target Data Access	C/CPFF		0.000	0.000		0.331	Mar-04	0.200	Nov-04	0.275	0.806	0.806
Dolphin Technology, Inc. -- High Throughput Imagery Guard (H-TIG)	C/IDIQ		0.000	0.000		0.142	Feb-04	0.250	Nov-04	0.325	0.717	0.717
Dolphin Technology, Inc. -- Multi-Information Domain Access Web Server (MIDAS)	C/IDIQ		0.000	0.000		0.200	Mar-04	0.331	Nov-04	0.449	0.980	0.980
Contractor TBD -- Enterprise Workflow	C/CPFF		0.000	0.000		0.000		0.230	Mar-05	0.325	0.555	0.555

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**Exhibit R-3, RDT&E Project Cost Analysis**

DATE

**February 2004**

BUDGET ACTIVITY	PE NUMBER AND TITLE				PROJECT NUMBER AND TITLE			
<b>04 Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>0603260F Intelligence Advanced Development</b>				<b>3481 Knowledge Based Tech For Intelligence</b>			
Management								0.000
Subtotal Product Development	0.500	1.290	1.320		1.361	1.374	5.845	5.845
Remarks:								
(U) Total Cost	0.500	1.290	1.320		1.361	1.374	5.845	5.845

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2004

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0603260F Intelligence Advanced Development

PROJECT NUMBER AND TITLE

3481 Knowledge Based Tech For Intelligence

Fiscal Year	2001				2002				2003				2004				2005				2006				2007				2008				2009			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i><u>Knowledge Based Technologies for Intelligence (BPAC 3481)</u></i>																																				
- Broadsword Enhancements	◆											◆																								
- Web Timeline Analysis System (WebTAS) Transition into CAOC-X						◆						◆																								
- Web-based Messaging Agent (WMA)											◆	◆																								
- Trusted Transfer Agent (TTA)	◆															◆																				
- TTA Phase 2, Reach Up						◆										◆																				
- TTA Phase 3, Star Guard											◆	◆																								
- Initiate Infrastructure Operations Tools Access / Secure Intelligence Data Enterprise Aware Repository Middleware (IOTA / SIDEARM)											◆	◆																								
- Counter Terrorism / Information Operations (CT / IO) Target Data Access															◆	◆																				
- High Throughput Imagery Guard (H-TIG)															◆	◆																				
- Multi-Information Domain Access Web-Server (MIDAS)															◆	◆																				
- Enterprise Workflow Management																																				

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<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>February 2004</b>
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<b>BUDGET ACTIVITY</b> <b>04 Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>PE NUMBER AND TITLE</b> <b>0603260F Intelligence Advanced Development</b>	<b>PROJECT NUMBER AND TITLE</b> <b>3481 Knowledge Based Tech For Intelligence</b>
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<b>(U) <u>Schedule Profile</u></b>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Complete Broadsword Enhancements	4Q		
(U) Complete WebTAS Transition into CAOC-X	4Q		
(U) Initiate / Complete Web-Based Messaging Agent (WMA)	1-4Q		
(U) Continue Trusted Transfer Agent (TTA) -- Continued Phase 2, Reach Up	1-4Q		
(U) Continue Trusted Transfer Agent--Initiated Phase 3, Starguard	2Q		
(U) Initiate Infrastructure Operations Tools Access (IOTA) / Secure Intelligence Data Enterprise -Aware Repository Middleware (IOTA / SIDEARM)	2Q		
(U) Continue Trusted Transfer Agent (TTA) -- Complete Phase 2, Reach Up		4Q	
(U) Continue Trusted Transfer Agent (TTA) -- Continue Phase 3, Starguard		1-4Q	
(U) Continue IOTA / SIDEARM		1-4Q	
(U) Initiate Counter-Terrorism / Information Operations (CT / IO) Target Data Access		2Q	
(U) Initiate Multi Information Domain Access Web Server (MIDAS)		2Q	
(U) Initiate High Throughput Imagery Guard (H-TIG)		2Q	
(U) Complete Trusted Transfer Agent (TTA) -- Complete Phase 3, Starguard			4Q
(U) Complete IOTA / SIDEARM			4Q
(U) Continue Counter-Terrorism / Information Operations (CT / IO) Target Data Access			1-4Q
(U) Continue Multi-Information Domain Access Web Server (MIDAS)			1-4Q
(U) Continue High Throughput Imagery Guard (H-TIG)			1-4Q
(U) Initiate Enterprise Workflow Management Tool			2Q

**Exhibit R-2a, RDT&E Project Justification**

DATE  
**February 2004**

<b>BUDGET ACTIVITY</b> <b>04 Advanced Component Development and Prototypes (ACD&amp;P)</b>				<b>PE NUMBER AND TITLE</b> <b>0603260F Intelligence Advanced Development</b>			<b>PROJECT NUMBER AND TITLE</b> <b>3482 Science &amp; Tech Intelligence Methodology</b>		
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
3482 Science & Tech Intelligence Methodology	1.032	1.051	1.085	1.095	1.116	1.133	1.152	0.000	0.000
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

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

Demonstrates and validates intelligence methodologies and techniques for operational employment of simulation models in support of Air Intelligence Agency (AIA) requirements. The methods and techniques will help AIA 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.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Complete Dynamic Information Operations Development Environment (DIODE) Interface to Electronic Intelligence Preparation of the Battlefield (EIPB)	0.258		
(U) Continue Tel-Scope Situation Awareness	0.332		
(U) Initiate Joint DIODE Integration Tools	0.283		
(U) Initiate Joint Integrated Air Defense System (IADS) View	0.159		
(U) Complete Tel-Scope Situation Awareness		0.293	
(U) Complete Joint DIODE Integration Tools		0.311	
(U) Continue Joint IADS View		0.278	
(U) Initiate DIODE / Automated Correspondence Analysis System (ACAS)		0.169	
(U) Complete Joint IADS View			0.377
(U) Continue DIODE / Automated Correspondence Analysis System (ACAS)			0.350
(U) Initiate Command & Control (C2) Process Models			0.358
(U) Total Cost	1.032	1.051	1.085

**(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) AF RDT&E									
(U) Other APPN									
None									

**(U) D. Acquisition Strategy**

All major contracts within this project were awarded after full and open competition.

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Exhibit R-3, RDT&E Project Cost Analysis										DATE February 2004		
BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P)					PE NUMBER AND TITLE 0603260F Intelligence Advanced Development					PROJECT NUMBER AND TITLE 3482 Science & Tech Intelligence Methodology		
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total</u> Prior to FY 2003 <u>Cost</u>	<u>FY</u> 2003 <u>Cost</u>	<u>FY</u> 2003 <u>Award</u> <u>Date</u>	<u>FY</u> 2004 <u>Cost</u>	<u>FY</u> 2004 <u>Award</u> <u>Date</u>	<u>FY</u> 2005 <u>Cost</u>	<u>FY</u> 2005 <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>
PRC, Inc. -- Dynamic Information Operations Decision Environment (DIODE) for Electronic Intelligence Preparation of the Battlefield (EIPB)	C/CPFF		0.100	0.258	Nov-02	0.000		0.000		0.000	0.358	0.358
PRC, Inc. -- Tel-Scope	C/FFP		0.200	0.332	Nov-02	0.325	Nov-03	0.000		0.000	0.857	0.857
Northrup-Grumman IT -- Joint DIODE Integration Tools	C/CPFF		0.000	0.283	Mar-03	0.250	Nov-03	0.000		0.000	0.533	0.533
SAIC -- Joint Integrated Air Defense System (IADS) View	C/CPFF		0.000	0.159	Mar-03	0.300	Nov-03	0.377	Nov-04	0.000	0.836	0.836
Contractor TBD -- DIODE / Automated Correspondent Analysis System (ACAS)	C/CPFF		0.000			0.176	Mar-04	0.350	Nov-04	0.425	0.951	0.951
Contractor TBD, Contract No. TBD -- Command and Control (C2) Process Models	C/CPFF		0.000			0.000		0.358	Mar-05	0.400	0.758	0.758
Subtotal Product Development			0.300	1.032		1.051		1.085		0.825	4.293	4.293
Remarks:												
(U) Total Cost			0.300	1.032		1.051		1.085		0.825	4.293	4.293

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2004

BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0603260F Intelligence Advanced Development

PROJECT NUMBER AND TITLE

3482 Science & Tech Intelligence Methodology

Fiscal Year	2001				2002				2003				2004				2005				2006				2007				2008				2009			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Science and Technology Intelligence Methodology (BPAC 3482)</i>																																				
- Dynamic Information Operations Development Environment (DIODE) Interface to Electronic Intelligence Preparation of the Battlefield (EIPB)	◆											◆																								
- Tel-Scope Situation Awareness	◆															◆																				
- Joint DIODE Integration Tools									◆				◆																							
- Joint Integrated Air Defense System (IADS) View									◆							◆																				
- DIODE / Automated Correspondence Analysis System (ACAS)													◆																							
- Command and Control (C2) Process Models																	◆																			
-																																				

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<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>February 2004</b>
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<b>BUDGET ACTIVITY</b> <b>04 Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>PE NUMBER AND TITLE</b> <b>0603260F Intelligence Advanced Development</b>	<b>PROJECT NUMBER AND TITLE</b> <b>3482 Science &amp; Tech Intelligence Methodology</b>
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	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) <b>Schedule Profile</b>			
(U) Completed Dynamic Information Operations Development Environment (DIODE) Interface to Electronic Intelligence Preparation of the Battlefield (EIPB)	4Q		
(U) Continued Tel-Scope Situation Awareness	1-4Q		
(U) Initiated Joint DIODE Integration Tools	2Q		
(U) Initiated Joint Integrated Air Defense System (IADS) View	2Q		
(U) Complete Tel-Scope Situation Awareness		4Q	
(U) Complete Joint DIODE Integration Tools		4Q	
(U) Continue Joint IADS View		1-4Q	
(U) Initiate DIODE / Automated Correspondence Analysis System (ACAS)		2Q	
(U) Complete Joint IADS View			4Q
(U) Continue DIODE / Automated Correspondence Analysis System (ACAS)			1-4Q
(U) Initiate Command and Control (C2) Process Models			2Q