

<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>	DATE <b>February 2008</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>0603742F Combat Identification Technology</b>
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	Cost (\$ in Millions)	FY 2007 Actual	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		23.389	25.875	29.400	27.841	27.410	27.276	27.463	Continuing	TBD
2597 Noncooperative Identification Subsystems		15.819	20.135	20.396	20.740	20.919	21.310	21.735	Continuing	TBD
2599 Cooperative Identification Techniques		7.570	5.740	9.004	7.101	6.491	5.966	5.728	0.000	56.165

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

U.S. Combat Air Forces have a critical requirement to positively identify enemy, friendly, and neutral aircraft, battlefield equipment and personnel in order to increase combat effectiveness and prevent fratricide. Numerous Joint needs statements, operational documents, lessons learned, and NATO requirements documents also state the need for positive combat identification (CID). High confidence CID enables combatant commanders to effectively command and control their forces in all weather and day/night.

The Combat Identification (CID) Technology program analyzes, develops, and demonstrates promising target identification technologies in order to transition them into Systems Development/Demonstration (SD/D) programs. These technologies include both cooperative and non-cooperative techniques that will improve our ability to positively identify ground and air targets in both Air-to-Surface and Air-to-Air engagements. This program will participate in the development, testing, and implementation of international standards (to include NATO standardization agreements) to ensure joint, Allied, and coalition interoperability.

Non-cooperative CID employs a number of sensing and signal processing techniques and compares the results against a database of known objects to determine identity. The non-cooperative CID techniques can be used for identifying surface or air threats from air platforms. These technologies include: (1) Laser Vision, an electro-optical imaging system that significantly increases ID ranges and includes (a) the Laser Target Imaging Program (LTIP) which will consist of radio-based, optical, and microwave cooperative ID systems, combat mode improvements, laser vibration development, and studies to support decisions on future work and (b) the Advanced (3D) Laser Sensing (ALS)/ATR Combat ID Program which includes advanced laser vibration, 3-dimensional LADAR, laser radar, synthetic aperture laser (SAL) radar, aided/automatic target recognition, and image fusion; (2) Radar Vision, an air-to-ground radar imaging technique to identify objects using their radar signatures; (3) the High Range Resolution (HRR) algorithm development program that uses radar signals processing to increase ID range and confidence; (4) The Fusion Vision Program, a fusion of sensor data from multiple sources to create a higher confidence in CID of surface or air targets; and (5) The Target Signature (multispectral) Database Development Program. A robust database program of surface and air targets from various countries populated from multiple sources. Within these programs the goal is to bring algorithm maturation to the point to allow for data fusion sufficient to support Aided Target Cueing (ATC) and Aided Target Recognition (ATR).

Current and future space-based systems can facilitate these processes leading ultimately to Aided Target Recognition (ATR) fusion and net-centric warfare. Fusion Vision focuses on combining the identifying features of several sensors that sample distinct signatures of air and surface targets, to better accomplish the CID mission. ATR focuses on development, demonstration, and integration of technologies drawing upon all available information data elements or platforms e.g. (national, tactical, fighter, bomber, ISR). The desired outcome would provide the operational-level decision maker a single, fused display of all threats or assets. These

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04 Advanced Component Development and Prototypes (ACD&P)

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0603742F Combat Identification Technology

technologies must provide near-real time information, to include Special Compartmented Information (SCI) and classified data information, to the operational and tactical level decision makers for both ground and airborne systems. Efforts, such as Blue Force Tracking (BFT) and Joint Blue Force Situational Awareness (JBFSa), focus on development and approval of new technologies so all this information can be shared across security levels, services and with foreign participants.

Cooperative CID techniques require a system that allows rapid identification of a friendly system. In an air-to-ground setting, this can be in the form of unique markings on a vehicle or a radio-based reply that is activated by a directed signal. In both an air-to-air and surface-to-air setting, this program element funds the growth to Mark XIIA, the Next Generation Identification Friend or Foe (IFF) standard for NATO and Joint Services, through the development of Mode 5 capability within Mark XII equipment. IFF performance was highlighted as a significant deficiency in Operation Iraqi Freedom. Mode 5 implementation within the Air Force began with the fielding of new digital Mark XII hardware capable of Mode S for Air Traffic Control (ATC), and upgradeable to Mode 5 with new cryptologic gear, processor cards, and software. The development funded by this program element ensures availability of an upgrade path for implementing platforms across the Air Force fleet. This program is in Budget Activity 4 - Advanced Component Development and Prototypes (ACD&P). The PE includes advanced technology demonstrations that help transition technologies from laboratory to operational use.

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

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	26.407	26.054	26.046
(U) Current PBR/President's Budget	23.389	25.875	29.400
(U) Total Adjustments	-3.018		
(U) Congressional Program Reductions	-3.018	-0.014	
Congressional Rescissions		-0.165	
Congressional Increases			
Reprogrammings			
SBIR/STTR Transfer			

(U) **Significant Program Changes:**

Mode 5 program increases in FY08, FY09, and FY10 fund Air Force synchronization and systems engineering effort as the AF integrates Mode 5 capability into various platforms.

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

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BUDGET ACTIVITY <b>04 Advanced Component Development and Prototypes (ACD&amp;P)</b>				PE NUMBER AND TITLE <b>0603742F Combat Identification Technology</b>			PROJECT NUMBER AND TITLE <b>2597 Noncooperative Identification Subsystems</b>		
Cost (\$ in Millions)	FY 2007 Actual	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
2597 Noncooperative Identification Subsystems	15.819	20.135	20.396	20.740	20.919	21.310	21.735	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

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

Non-cooperative CID employs a number of sensing and signal processing techniques and compares the results against a database of known objects to determine identity. The non-cooperative CID techniques can be used for identifying surface or air threats from air platforms. These technologies include: (1) Laser Vision, an electro-optical imaging system that significantly increases ID ranges and includes (a) the Laser Target Imaging Program (LTIP) which will consist of th radio-based, optical, and microwave cooperative ID systems, combat mode improvements, laser vibration development, and studies to support decisions on futrue work and (b) the Advanced (3D) Laser Sensing (ALS)/ATR Combat ID Program which includes advanced laser vibration, 3-dimensional LADAR, laser radar, synthetic aperture laser (SAL) radar, aided/automatic target recognition, and image fusion; (2) Radar Vision, an air-to-ground radar imaging technique to identify objects using their radar signatures; (3) the High Range Resolution (HRR) algorithm development program that uses radar signals processing to increase ID range and confidence; (4) The Fusion Vision Program, a fusion of sensor data from multiple sources to create a higher confidence in CID of surface or air targets; and (5) The Target Signature (multispectral) Database Development Program. A robust database program of surface and air targets from various countries populated from multiple sources. The goal within these programs is to bring algorithm maturation to the point to allow for data fusion sufficient to support Aided Target Cueing (ATC) and Aided Target Recognition (ATR).

This program is in Budget Activity 4 - Advanced Component Development and Prototypes (ACD&P). It includes advanced technology demonstrations that help transition technologies from laboratory to operational use.

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

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Transition / convert the High Range Resolution (HRR) synthetic target database developed in conjunction with National Air and Space Intelligence Center (NASIC) to the Target Signature Data Base for use on multiple platforms. Program awaiting target database development.	0.800	0.070	0.000
(U) Establish and develop the Target Signature (multispectral) Database Development Program. A robust database program of surface and air targets from various countries populated from multiple sources. Incorporate the analysis and database developed in prior years by the HRR program.	2.971	4.900	0.359
(U) Transition verified air-to-ground and air-to-air identification capabilities for reduced battle space fratricide and enhanced mission performance and develop/demonstrate promising future capabilities. Program candidates include the integration of Laser Vision/LTIP into designated platforms, to include Advanced LTIP projects, development of 1st generation Electro Optical/Automatic Target Cueing/Automatic Target Recognition (EO/ATC/ATR) Laser Vision capability, development/demonstration of advanced 3D Laser Sensing, and insertion of mature/hardened	10.229	12.589	15.239

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04 Advanced Component Development and Prototypes (ACD&P)

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0603742F Combat Identification Technology

PROJECT NUMBER AND TITLE

2597 Noncooperative Identification Subsystems

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) <b><u>B. Accomplishments/Planned Program (\$ in Millions)</u></b>			
camera technologies into alternate platforms. The Radar Vision technology applies Aided Target Recognition (ATR) algorithms to Radar Imagery and Radar Signature returns which puts target ID labels on the radar imagery and tracks using a common database of target signatures. Radar Vision is using spiral development to mature algorithms, add target signatures, and test/demonstrate. Future spirals will include hybrid algorithms, moving ground targets, advanced radar modes and frequencies, and exploitation of 3D characteristics.			
(U) Establish and develop Fusion Vision program, a fusion of sensor data from multiple sources to create a high confidence in CID of surface and air targets.	0.000	0.362	2.000
(U) Fund Air Traffic Control Radar Beacon Systems Identification Friend or Foe Mark XIIIA System (AIMS) Program Office support of the Mark XIIIA system to include current and next generation IFF equipment integration, including Mode 5 documentation and individual IFF system/box certification.	0.864	1.051	1.099
(U) Continue funding Combat Identification technology flight and other engineering support necessary for management of CID efforts.	0.923	1.080	1.113
(U) Conduct CID-related studies/demos and conferences. Execute Mode 5 IFF flight test preparations and demonstration to assess system operational capacity, interoperability, and equipment integration. Studies and demonstrations will include those directed by Joint Staff and OSD to research and evaluate a family of CID systems, linkage between airborne and ground-based non-cooperative CID technologies/systems, and quantify the relationship between CID and improved combat effectiveness.	0.032	0.083	0.586
(U) Total Cost	15.819	20.135	20.396

(U) **C. Other Program Funding Summary (\$ in Millions)**

	<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>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	

(U) Not Applicable

(U) **D. Acquisition Strategy**

The acquisition strategy for CID programs is to investigate, develop, and transition CID capabilities via contract vehicles that provide the greatest benefit to the end-user in the areas of performance, value, and transition timeline.

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

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<b>BUDGET ACTIVITY</b>	<b>PE NUMBER AND TITLE</b>	<b>PROJECT NUMBER AND TITLE</b>
<b>04 Advanced Component Development and Prototypes (ACD&amp;P)</b>	<b>0603742F Combat Identification Technology</b>	<b>2597 Noncooperative Identification Subsystems</b>

(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total Prior to FY 2007 Cost</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u>												
Raytheon Company	C/CPFF	El Segundo, CA	21.038	0.445	Nov-06					0.000	21.483	21.248
Northrop Grumman Corporation	C/CPFF	Linthicum Heights, MD	17.218	4.715	Jan-07	8.199	Oct-07	7.527	Jan-09	Continuing	TBD	TBD
Lockheed Martin	OTA	Orlando FL	15.791							0.000	15.791	15.791
Northrop Grumman Corporation (JSTARs support)	C/CPFF	Melbourne, FL	0.758	0.020	Jan-08					0.000	0.778	0.760
Science Applications Internation Corporation	SS/CPFF	Dayton, OH	22.187	1.990	Nov-06	3.559	Nov-07	0.678	Nov-08	Continuing	TBD	TBD
AIMS Program Office	MIPR/PO	Warner Robins, GA	4.076	0.864	Oct-06	1.051	Oct-07	1.099	Oct-08	Continuing	TBD	TBD
General Dynamics (formerly Veridian)	C/CPFF	Buffalo, NY	2.475	0.270	Nov-06	0.457	Nov-07	0.265	Nov-08	Continuing	TBD	TBD
Sverdrup Technology	C/CPFF	Ft Walton Beach, FL	2.372	0.849	Nov-06	0.724	Nov-07	0.540	Nov-08	Continuing	TBD	TBD
Wyle Lab Inc.	C/PO	El Segundo, CA		0.437	Apr-07						0.437	
SIREN & Litening Study	POs	SAF/FMBIB		0.794	Mar-07	0.130	Dec-07				0.924	
General Dynamics	C/CPFF	Beavercreek, OH		0.276	Aug-07	0.024	Feb-08				0.300	
Systems Research & Applications Corp	C/CPFF	Fairfax, VA		1.781	Jan-07	1.515	Nov-07				3.296	
Wyle Laboratories	C/PO	Dayton, OH	0.200	0.300	Apr-07					0.000	0.500	0.200
CISC Support	C/LH	Fairfax, VA	0.085			0.000		0.100	Feb-09	Continuing	TBD	TBD
DOE - Sandia National Labs	MIPR	Albuquerque, NM	1.090	0.370	Apr-07	0.301	Jan-08				1.761	1.090
AFIT	PO	WPAFB, OH	0.050	0.032	Nov-06	0.033	Nov-07	0.035	Nov-08	Continuing	TBD	TBD
AFRL/SNZ (Fusion Vision)	AF616	WPAFB, OH	0.000			0.362	Feb-08	2.000	Nov-08	Continuing	TBD	TBD
AFRL/SNJ (3D Laser)	AF616	WPAFB, OH	0.000	0.000		0.000		4.400	Nov-08	Continuing	TBD	TBD
Multi-Sensor DB Analysis	AF616	WPAFB, OH	0.000	0.000		0.000		0.359	Dec-08	Continuing	TBD	TBD
Combat ID Analysis	AF616	WPAFB, OH	0.000			0.050	Feb-08	0.551	Dec-08	Continuing	TBD	TBD
Subtotal Product Development			87.340	13.143		16.405		17.554		Continuing	TBD	TBD
Remarks:												
(U) <u>Support</u>												
SPO support	Various	Hanscom	10.538	0.939	Oct-06	1.893	Oct-07	1.950	Oct-08	Continuing	TBD	TBD
Air Force Research Laboratory	MIPR	WPAFB, OH	3.298	0.275	Oct-06	0.283	Oct-07	0.292	Oct-08	Continuing	TBD	TBD
MITRE	Various	Hanscom AFB, MA	0.914	0.283	Nov-06	0.379	Nov-07	0.300	Nov-08	Continuing	TBD	TBD
Subtotal Support			14.750	1.497		2.555		2.542		Continuing	TBD	TBD
Remarks:												
(U) <u>Test &amp; Evaluation</u>												

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BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P)					PE NUMBER AND TITLE 0603742F Combat Identification Technology					PROJECT NUMBER AND TITLE 2597 Noncooperative Identification Subsystems				
46th Test Wing	MIPR/PO	Eglin AFB, FL	5.690	0.012	Apr-07	0.215	Apr-08	0.200	Apr-09	Continuing	TBD	TBD		
412th Test Wing	MIPR/PO	Edwards AFB, CA	0.977	0.400	Nov-06	0.200	Apr-08	0.100	Apr-09	Continuing	TBD	TBD		
Navy Systems Mgmt Activity	MIPR	Arlington, VA	0.161							0.000	0.161	0.161		
Aberdeen Proving Ground	MIPR	Aberdeen Proving Ground, MD	0.075	0.025	Apr-07					0.000	0.100	0.100		
Ft AP Hill	MIPR	Ft. Belvoir, VA	0.025							0.000	0.025	0.025		
DIA & TSMO	MIPR	Redstone Arsenal, AL	0.058	0.077	Jun-07					0.000	0.135	0.058		
Have Centaur	PO	Las Vegas, NV	0.110							0.000	0.110	0.110		
Have Centaur	PO	WSMR, NM	0.055							0.000	0.055	0.055		
Have Centaur	PO	Eglin AFB, FL	0.114							0.000	0.114	0.114		
Naval Air Force	MIPR	San Diego, CA	0.031							0.000	0.031	0.031		
JSTARS Test Facility	Suballotment	Patrick AFB, FL	0.548	0.629	Aug-07					0.000	1.177	0.548		
AFRL - Northrop Grumman	C/CPFF	McLean, VA	0.000	0.036	Nov-06					0.000	0.036	0.036		
ACTD JFCOM	MIPR	Norfolk, VA				0.760	Feb-08			0.760				
Subtotal Test & Evaluation			7.844	1.179		1.175		0.300		Continuing	TBD	TBD		
Remarks:														
(U) <u>Management</u>											0.000			
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000		
Remarks:														
(U) Total Cost			109.934	15.819		20.135		20.396		Continuing	TBD	TBD		

Exhibit R-4, RDT&E Schedule Profile

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BUDGET ACTIVITY  
04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE  
0603742F Combat Identification  
Technology

PROJECT NUMBER AND TITLE  
2597 Noncooperative Identification  
Subsystems

# Non-Cooperative CID Technology Schedule

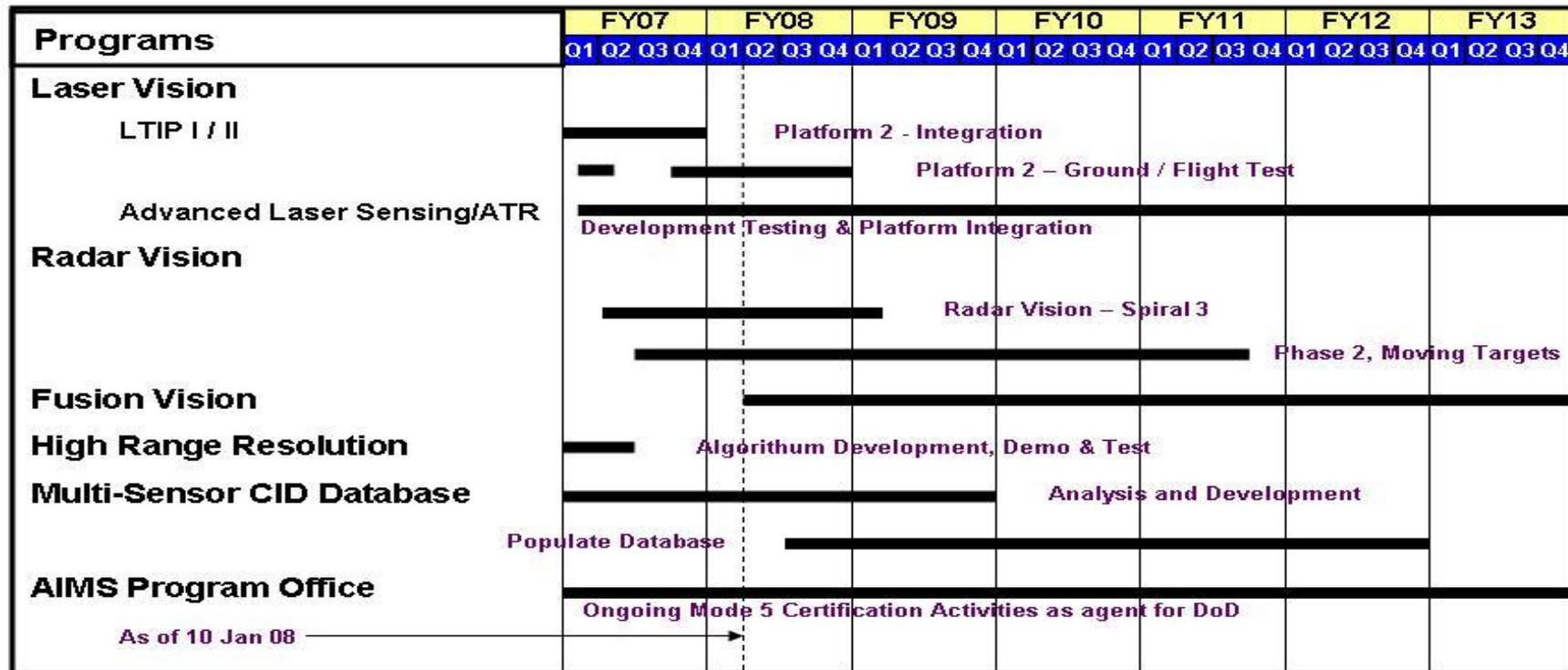


Exhibit R-4a, RDT&E Schedule Detail

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BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&P)

PE NUMBER AND TITLE

0603742F Combat Identification Technology

PROJECT NUMBER AND TITLE

2597 Noncooperative Identification Subsystems

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) <b>Schedule Profile</b>			
(U) LASER VISION - LTIP I / LTIP II Platform 2 Integration	1-4Q		
(U) LASER VISION - LTIP I / LTIP II Platform 2 Ground/Flt Test	1-4Q	1-4Q	
(U) LASER VISION - Advanced Laser Sensing/Aided Target Recognition	1-4Q	1-4Q	1-4Q
(U) RADAR VISION - Radar Vision Spiral 3	2-4Q	1-4Q	1Q
(U) RADAR VISION - Phase 2 - Moving Target Recognition	3-4Q	1-4Q	1-4Q
(U) FUSION VISION - AFRL Development and Demonstration		2-4Q	1-4Q
(U) HIGH RANGE RESOLUTION RADAR - Algorithm Development	1-2Q		
(U) MULTI-SENSOR CID DATABASE - Analysis & Development	1-4Q	1-4Q	1-4Q
(U) MULTI-SENSOR CID DATABASE - Database Population		3-4Q	1-4Q
(U) AIMSPO - IFF Certification Activities	1-4Q	1-4Q	1-4Q

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BUDGET ACTIVITY <b>04 Advanced Component Development and Prototypes (ACD&amp;P)</b>				PE NUMBER AND TITLE <b>0603742F Combat Identification Technology</b>			PROJECT NUMBER AND TITLE <b>2599 Cooperative Identification Techniques</b>			
Cost (\$ in Millions)	FY 2007 Actual	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total	
2599 Cooperative Identification Techniques	7.570	5.740	9.004	7.101	6.491	5.966	5.728	0.000	56.165	
Quantity of RDT&E Articles	0	0	0	0	0	0	0			

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

Cooperative CID techniques require a system that allows rapid identification of a friendly system. In an air-to-ground setting, this can be in the form of unique markings on a vehicle or a radio-based reply that is activated by a directed signal. In both an air-to-air and surface-to-air setting, this program element funds the growth to Mark XIIA, the Next Generation Identification Friend or Foe (IFF) standard for NATO and Joint Services, through the development of Mode 5 capability within Mark XII equipment. IFF performance was highlighted as a significant deficiency in Operation Iraqi Freedom. Mode 5 implementation within the Air Force began with the fielding of new digital Mark XII hardware capable of Mode S for Air Traffic Control (ATC) and upgradeable to Mode 5 with new cryptologic gear, processor cards, and software. The development funded by this program element ensures availability of an upgrade path for implementing platforms across the Air Force fleet.

Joint Sensor Signature Database (JSSD) is a robust database program of surface and air targets from various countries populated from multiple sources. The goal is to bring algorithm maturation to the point to allow for data fusion sufficient to support Aided Target Cueing (ATC) and Aided Target Recognition (ATR).

This project is in Budget Activity 4 - Advanced Component Development and Prototypes (ACD&P). The PE includes advanced technology demonstrations that help transition technologies from laboratory to operational use. Also, the project will participate in the development, testing, and implementation of international standards (to include NATO standardization agreements) to ensure joint, Allied, and coalition interoperability.

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

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Continue the Mode 5 upgrade to the APX-119 transponder, the APX-114 interrogator, and the APX-113 Combined Interrogator/Transponder (CIT). Continue the Mode 5 upgrade to interrogators such as the UPX-40 interrogator on the AWACS. Provide systems engineering and program management to facilitate planned platform integrations, including interoperability testing.	7.570	5.740	5.554
(U) Continue development of Joint Sensor Signature Database (JSSD) while transitioning effort from Air Force Research Laboratories to National Air and Space Intelligence Center (NASIC). JSSD is a robust database program of surface and air targets from various countries populated from multiple sources. The goal is to bring algorithm maturation to the point to allow for data fusion sufficient to support Aided Target Cueing (ATC) and Aided Target Recognition (ATR).			3.450
(U) Total Cost	7.570	5.740	9.004

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BUDGET ACTIVITY

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0603742F Combat Identification Technology

PROJECT NUMBER AND TITLE

2599 Cooperative Identification Techniques

(U) C. Other Program Funding Summary (\$ in Millions)

	<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>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	

(U) Not applicable

(U) D. Acquisition Strategy

To develop the Mode 5 capability in the digital Mark XII IFF equipment in or planned for use on AF platforms, and provide systems engineering and program management in order to facilitate the integration into all AF mission design series (MDS), or platforms, and transition the AF cooperative ID capability to Mark XIIA.

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

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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>0603742F Combat Identification Technology</b>					<b>2599 Cooperative Identification Techniques</b>				
(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 Prior to FY 2007 Cost</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>	
(U) <u>Product Development</u>													
BAE	C/CPFF	Greenlawn, NY	6.350	2.990	Jan-07	1.220	Jan-08	0.800	Nov-08	Continuing	TBD	TBD	
Boeing/Telephonics	C/CPFF	Farmingdale, NY	7.083					0.800	Nov-08	Continuing	TBD	TBD	
Raytheon	C/CPFF	Baltimore, MD	7.850	3.681	Mar-07	2.525	Nov-07	0.800	Nov-08	Continuing	TBD	TBD	
Joint Sensor Signature Database (JSSD)	TBD	TBD						3.450	Dec-08	Continuing	TBD	TBD	
Subtotal Product Development			21.283	6.671		3.745		5.850		Continuing	TBD	TBD	
Remarks:													
(U) <u>Support</u>													
SPO Support	Various	Various	1.053	0.632	Oct-06	1.058	Oct-07	1.439	Oct-08	Continuing	TBD	TBD	
Subtotal Support			1.053	0.632		1.058		1.439		Continuing	TBD	TBD	
Remarks:													
(U) <u>Test &amp; Evaluation</u>													
JFCOM	MIPR	Norfolk, VA	0.100			0.110	Mar-08	0.115	Mar-09	Continuing	TBD	TBD	
46 Test Wing	PO	Eglin AFB, FL	0.040	0.029	Jun-07	0.150	Dec-07	1.100	Mar-09	Continuing	TBD	TBD	
WR-ALC	AF616	Robins AFB, GA		0.038	Sep-07	0.177	Feb-08				0.215		
Subtotal Test & Evaluation			0.140	0.067		0.437		1.215		Continuing	TBD	TBD	
Remarks:													
(U) <u>Management</u>													
Systems Engineering/Program Management (AIMS PO)	AF616	Robins AFB, GA	0.444	0.200	Feb-07	0.500	Feb-08	0.500	Feb-09	Continuing	TBD	TBD	
Subtotal Management			0.444	0.200		0.500		0.500		Continuing	TBD	TBD	
Remarks:													
(U) Total Cost			22.920	7.570		5.740		9.004		Continuing	TBD	TBD	



UNCLASSIFIED

<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>February 2008</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>0603742F Combat Identification Technology</b>	<b>PROJECT NUMBER AND TITLE</b> <b>2599 Cooperative Identification Techniques</b>
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	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) <b><u>Schedule Profile</u></b>			
(U) APX-113 - Systems Development/Demonstration	1-4Q	1-2Q	
(U) APX-113 - Test and Evaluation		1Q	
(U) APX-113 - AIMS Certification		1-3Q	
(U) APX-113 System Engineering & Program Support		3-4Q	1-4Q
(U) APX-114/APX-119 - Systems Development/Demonstration	1-4Q	1-2Q	
(U) APX-114/APX-119 - Systems Integration	3-4Q	1-4Q	1-2Q
(U) APX-114/APX-119 - Test and Evaluation		3-4Q	1-2Q
(U) APX-114/APX-119 - AIMS Certification			1-2Q
(U) APX-114 /APX-119 System Engineering & Program Support			1-4Q
(U) UPX-40 - Systems Development/Demonstration	1-4Q	1Q	
(U) UPX-40 - Test and Evaluation		1-3Q	
(U) UPX-40 - AIMS Certification		2-3Q	