

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2004
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BUDGET ACTIVITY 06 RDT&E Management Support	PE NUMBER AND TITLE 0604759F Major T&E Investment
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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	58.331	60.992	58.933	56.551	59.963	62.877	64.969	Continuing	TBD
4597 Air Force Test Investments	58.331	60.992	58.933	56.551	59.963	62.877	64.969	Continuing	TBD

In FY 2005, Project 4597, Air Force Test Investments, includes a new start effort

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

This PE provides planning, improvements, and modernization for test capabilities at three Air Force test organizations: 46 Test Wing of the Air Armament Center (AAC) (to include 46 Test Group at Holloman), Arnold Engineering Development Center (AEDC), and Air Force Flight Test Center (AFFTC). The purpose is to help test organizations keep pace with emerging weapon system technologies. For example, advances in missile seeker technology and capabilities drive the requirements for improvement in missile seeker test capabilities such as the Scene Characterization and Reconstruction for Advanced Munitions (SCRAM) project; advances in the Global Positioning System (GPS), providing greater time-space-position accuracy, will be integrated into the ranges at Eglin and Edwards Air Force Bases; and advances in computer capabilities, which will enhance efficiencies in data collection, analysis, and distribution, will be exploited in the Data Processing Multi-Stage Improvement Program (DPMSIP). Test investment activities are also funded for activities supporting the Test and Evaluation (T&E) Board of Directors and for the Technology Insertion & Risk Reduction (TIRR), formerly the Test Technology Development (TTD) Program. The TIRR program will provide funds to initiate studies of new technologies and test methodologies to determine their feasibility for future T&E investment. The intent is to reduce the cost and risk associated with new technologies and methodologies using short term (1-3 years) limited funding studies prior to investing in larger projects. The first TIRR sub-project is Flight Safety System (FSS), which provides the interface standards and an initial ground processor operations station to support over-the-horizon long range operational test requirements of Unmanned Air Vehicles (UAVs). Additional TIRR subprojects are Enhanced Time Space Position Information (ETSPI) and Low Observable Instrumented Tow-Target (LOIT).

The fluctuations in the funding at these locations are due to changing priorities in the improvement and modernization requirements as defined through the AF Test Investment Planning & Programming Process. Also, all projects have been reviewed through the tri-Service Reliance effort (to communicate AF efforts to the other Services and avoid unwarranted duplication of effort) and are documented in Reliance Area Capability Summaries (RACS). Further, each project has its own planning, development, equipment acquisition/facility construction, equipment installation, and checkout phases which often requires significant differences in funding from one year to the next. As such, the changes in funding from year to year do not necessarily indicate program growth but rather a planned phasing of improvement and modernization efforts. The test capabilities at these locations enable testing through all phases of weapon system acquisition from system concept exploration through component and full scale integrated weapon system testing to operational testing. These test organizations are a national asset operated and maintained by the Air Force for DoD test and evaluation missions, but they are available to others having a requirement for their unique capabilities.

46TW, located at Eglin AFB, FL, conducts and supports developmental test and evaluation (DT&E) and operational test and evaluation (OT&E) of non-nuclear air armaments, Command, Control, Communications, Computers and Intelligence (C4I) systems, and target acquisition and weapon delivery systems; navigation systems; provides a climatic simulation capability; and determines target/test item spectral signatures. Advanced Airborne Instrumentation Integration (AII) provides standardized airborne test instrumentation to enhance interoperability and commonality. C4I Advanced Simulation and Test Environment (CASTE) will provide connectivity to existing

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capabilities and add needed networks and hardware to develop a C4I test bed. Operational Facilities (OPFACs) for Link-16 Weapon-Platform Integration (formerly Link-16 Support) will provide a host platform simulator for C4I testing. Scene Characterization and Reconstruction for Advanced Munitions (SCRAM) will measure, characterize, and reconstruct high fidelity multispectral target scenes that will be integrated into the Guided Weapon Evaluation Facility (GWEF). Weapon Integration Compatibility Support (WICS) will provide upgrades to support post System Development and Demonstration (SDD) F/A-22 weapons integration and certification. Climatic Lab Upgrades will provide upgrades to instrumentation and climatic simulation equipment. Test Control & Visualization will upgrade telemetry systems and network infrastructure to handle higher data rates. Advanced GPS/Hybrid Simulation (AGHS) capability will support laboratory testing with the new GPS signal structure and provide digital modeling of modernized GPS equipment. Armament and Munitions Digital Modeling and Simulation will develop, verify, and validate a standard set of reusable models and simulations to support armament and munitions T&E. These projects ensure test center technology is compatible with weapon systems to be tested such as AMRAAM, JDAM, ASRAAM, AGM-130, JTIDS, JSTARS, Combat Talon, etc.

AEDC, located at Arnold AFB, TN, provides ground environmental test support for DoD aeronautical, missile, and space programs. The center has 53 test facilities providing: aerodynamic testing of scale model aircraft, missile, and space systems; testing of large and full-scale satellites, sensors, and space vehicles in a simulated space environment; altitude environmental testing for aircraft, missile, and spacecraft propulsion systems; and testing of large-scale models such as space boosters together with their propulsion systems. The Propulsion Wind Tunnel (PWT) Upgrades project improves long-term operation of tunnels 16T and 16S to meet transonic/supersonic test needs. The Improve Turbine Engine Structural Integrity project will provide new state-of-the-art structural test monitoring and data analysis systems to support turbine engine structural tests to detect and analyze high cycle fatigue. Real-Time Display and Analysis System will provide upgraded displays and analysis systems to several key test facilities to help achieve a portion of AEDC's vision of integrating test/plant/utilities operations. The Enhanced Turbine Engine Installation and Productivity (formerly JSF STOVL Engine Test Cells Upgrade) will modernize the sea level test cell 3 (SL3) transferred from Trenton NAS under BRAC and installed at AEDC. This cell will be utilized for environmental and structural endurance testing of the Joint Strike Fighter (JSF) and other aircraft engines, F119/F120 derivatives. The cell will be upgraded for the size of the JSF engines and for the testing of the STOVL features of the engines. Propulsion Consolidation and Streamlining (PC&S) program invests in modernization of AEDC jet engine test capability by consolidating major industrial aeropropulsion test facilities, improving plant and test cell reliability, increasing test cell capability, and streamlining test processes.

AFFTC, located at Edwards AFB, CA, conducts and supports DT&E and OT&E of aircraft and aircraft systems, aerospace research vehicles, unmanned aerial vehicles, cruise missiles, parachutes delivery/recovery/systems, and cargo handling systems. The Flight Simulation Modernization (FSM) project will upgrade the Test and Evaluation Modeling and Simulation (TEMS) facility to meet future man-in-the loop simulator requirements. The Modeling and Simulation T&E Resources (MASTER) program is a joint development effort between the Air Force Flight Test Center (AFFTC) and Arnold Engineering Development Center (AEDC). The goal is for the two centers to integrate modeling and simulation (M&S) more closely to ground and open-air range flight test to reduce the cost and time of developmental testing. MASTER has been divided into five separate development efforts to meet this goal: the Consolidated Model and Data Repository; the development of a Configuration Management, scheduling and asset tracking system; the Propulsion Data Validation and Analysis System; the Store Separation Simulation Capability and the Fluid Structural Interaction Capability project will provide the TEMS facility with subsystem models to build future simulations and the tools to validate real-time modeling with ground tests and open-air range flight test. The Advanced Range Telemetry (ARTM) Integration project will procure and integrate improved range telemetry instrumentation, aircraft instrumentation suites, and ground support systems. It also provides a quick reaction capability for future weapon systems and enhancements required by AFFTC customers. The GPS Range Sensors (AGRS) project will provide increased Time, Space, Position Information (TSPI) accuracy and data link capabilities for pod and internal mount configurations. These objectives will be accomplished by integrating state of the art GPS and data transfer COTS equipment, upgrading software to provide

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high accuracy kinematics GPS processing and near-real-time data processing, and utilizing the Enhanced Range Application Program (EnRAP) Central Test and Evaluation Investment Program (CTEIP) project to procure tri-service interoperable GPS and datalink equipment. DPMSIP will provide a common system for real-time data display, near-real-time analysis, and post-test analysis. DPMSIP will also be compliant with current modeling and simulation data interface standards. The Next Generation Instrumentation (NexGenInst) project will upgrade instrumentation systems on test and test support aircraft in addition to improving the ground support systems used to program and preflight these systems and the AFFTC modification program management capability. The AFFTC Range Systems Upgrade (ARSU) program will provide upgrades to the current open air range systems to support future range programs in four specific areas: range communications, range imaging/display, range safety/surveillance, and command/control.

This Program Element is in Budget Activity 6, Management and Support, because it is a Research and Development (R&D) effort for Improvement and Modernization of T&E capabilities at Air Force Test Centers.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Previous President's Budget	59.971	50.215	59.606
(U) Current PBR/President's Budget	58.331	60.992	58.933
(U) Total Adjustments	-1.640	10.777	
(U) Congressional Program Reductions			
Congressional Rescissions		-0.523	
Congressional Increases		11.300	
Reprogrammings	-0.078		
SBIR/STTR Transfer	-1.562		

(U) **Significant Program Changes:**

Congressional Action, FY04 plus up of \$11.300: 3 Data Sensor System, \$1.000; Advanced Range Communications System, \$1.700; B-52 Flight Test Instrumentation, \$1.700; Holloman High Speed Test Track (HHSTT) Upgrade, \$3.500; Instrumentation Loading, Integration, Analysis, and Documentation (ILIAD), \$3.400.

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06 RDT&E Management Support				0604759F Major T&E Investment			4597 Air Force Test Investments			
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	
4597 Air Force Test Investments	58.331	60.992	58.933	56.551	59.963	62.877	64.969	Continuing	TBD	
Quantity of RDT&E Articles	0	0	0	0	0	0	0			

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Compatibility Support (WICS) will provide upgrades to support post System Development and Demonstration (SDD) F/A-22 weapons integration and certification. Climatic Lab Upgrades will provide upgrades to instrumentation and climatic simulation equipment. Test Control & Visualization will upgrade telemetry systems and network infrastructure to handle higher data rates. Advanced GPS/Hybrid Simulation (AGHS) capability will support laboratory testing with the new GPS signal structure and provide digital modeling of modernized GPS equipment. Armament and Munitions Digital Modeling and Simulation will develop, verify, and validate a standard set of reusable models and simulations to support armament and munitions T&E. These projects ensure test center technology is compatible with weapon systems to be tested such as AMRAAM, JDAM, ASRAAM, AGM-130, JTIDS, JSTARS, Combat Talon, etc.

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Instrumentation (NexGenInst) project will upgrade instrumentation systems on test and test support aircraft in addition to improving the ground support systems used to program and preflight these systems and the AFFTC modification program management capability. The AFFTC Range Systems Upgrade (ARSU) program will provide upgrades to the current open air range systems to support future range programs in four specific areas: range communications, range imaging/display, range safety/surveillance, and command/control.

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(U) <u>B. Accomplishments/Planned Program (\$ in Millions)</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Accomplishments/Planned Program:			
(U)			
(U) 46 Test Wing, Air Armament Center			
(U)			
(U) Advanced GPS Hybrid Simulation (AGHS). Develop new GPS simulator with hybrid capability for both conventional Radio Frequency (RF) GPS receivers and new Digital Receiver Modules (DRM). Procure, receive, and install hardware and software required to simulate the new GPS signal structure. Perform verification and validation efforts on new simulator.	0.928	1.009	1.197
(U) Weapon Integration Compatibility Support (WICS). F-22 flutter, loads, stability and control M&S. Eglin-Edwards, Eglin-AEDC, Eglin-Patuxent River NAS high-speed encrypted data link for near real-time data analysis.	1.695	2.844	3.136
(U) Armament and Munitions Digital Modeling and Simulation. Development and coordination of Modeling and Simulation Master Plan and Modeling and Simulation activities.	0.435	2.667	1.843
(U) Advanced Airborne Instrumentation Integration (AAII). Acquisition and integration of state-of-the-art airborne instrumentation such as Advanced Common Airborne Instrumentation System (CAIS) and CTEIP developed ARTM. Acquire ground support equipment to support pre/post flight operations.	1.184	1.779	2.443
(U) Scene Characterization and Reconstruction for Advanced Munitions (SCRAM). Acquisition of instrumentation to support scene characterization and reconstruction for T&E of EO/IR, RF/MMW, and GPS seeker/sensors.	4.140	4.591	5.164
(U) Test Control & Visualization. Upgrades to TM systems and network infrastructure to handle higher data rates. Acquire and integrate real time computing servers, data recorders, and video displays.	1.123	1.678	1.926
(U) C4I Advanced Simulation and Test Environment (CASTE). Acquisition of equipment, instrumentation, hardware, software, and connectivity.	1.348	1.504	2.060
(U) OPFACs for Link 16 Weapon-Platform Integration (formerly Link-16 Support). Acquisition of platform simulators and related datalink equipment.	2.752	2.756	2.362
(U) Climatic Lab Upgrade. Upgrades to instrumentation systems, climatic simulation equipment and facility equipment.	0.903	1.000	1.038
(U) Airborne Separation Video System. Procure high speed digital video systems to support Seek Eagle munitions test	1.062		

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requirements on B-1 aircraft. (FY03 Congressional Insert)			
(U) Holloman High Speed Test Track. Extend Maglev guideway foundation and girder. Demonstrate magnetic levitation test sled at higher velocities on the extended guideway. (FY03 and FY04 Congressional Insert)		2.415	3.470
(U) 3 Data Sensor System. Install an operating laser and integrate software for ranging. Modify software for range input/output. Improve tracking capabilities. (FY04 Congressional Insert)			0.991
(U)			
(U) Air Force Flight Test Center			
(U)			
(U) Flight Simulation Modernization (FSM). Fabricate second and third console sets (Joint Strike Fighter), provide multip simulation networking hardware and linking software. Provide capability to simulate flight of two-ship configuration i Performance and Flying Qualities (P&FQ) testing, and capability to upgrade simulation to link live and simulated avionics and Electronic Warfare software and hardware into simulation environment. Provide capability for separable simulations in a secure (Secret and higher) facility over a secure network.		1.562	0.189
(U) MASTER (Modeling and Simulation Test and Evaluation Resource). Develop on-line comparisons of predictions with flight trajectories and the resolution of anomalies between predictions and flight. Document the result of F/A-22 simulation and re-usable code validation. Develop 4th Generation information distribution interface and automated model-based fault detection and diagnostic capability for ground and flight test. Enhanced capabilities of fluid-structu technology to ground and flight test requirements will also be provided. Develop the facility management, configurati management and data management capabilities providing control of pre-test, test, and post test operations. The initial operational capability enabling collaboration between AFFTC and AEDC engineers will also be developed. Develop and validate enhanced capabilities of Fluid-Structural Technology to Ground and Flight Test requirements at the AFFTC. Execution of code validation plan and place validated codes and data in MASTER repository as well as the documented results of simulations and re-usable code validation. Develop collateral and top secret/special compartmented information systems to provide configuration, data and facility management. Develop, store, and transition models in the MASTER repository to support current and future test programs. Enhance the 4th Generation Propulsion Analysis System's information distribution interfaces and automated model-based fault detection and diagnostic capabilities for ground and flight test. Validate towed device cable model using flight data.		2.885	2.616 3.127
(U) Advanced Range Telemetry (ARTM) Integration. Integrate ARTM-developed Multi-h Continuous Phase Modulation (CPM) technology (Tier 1/Tier 2 modulation) into telemetry ground stations. Migrate airborne telemetry users from S-band to L-band (Tier 0, Tier 1, and Tier 2 modulation technology, as required by user). Refurbish old and integrate new antennas based on integration roadmap to support high-data rate users. Integrate high-data rate receivers and high-data rate telemetry communication systems for ground stations based on implementation roadmap. Integrate ARTM-developed technology and upgrade the telemetry support infrastructure to improve spectral efficiency, link reliability, and spectrum utilization. Upgrade data communication and integrate high data rate recorders for test suppo ground stations based on roadmap.		2.527	5.341 3.602

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(U) Advanced GPS Range Sensors (AGRS). Produce the first iteration of the Modular Affordable GPS IMU Receiver (MAGIR I) that integrates a miniature Inertial Measurement Unit (IMU) into a compact GPS internal mount instrumentation unit. Upgrade and deliver high-accuracy kinematic GPS TSPI processing software. Initiate low cost commercial spectrum datalink effort. Provide AFFTC inputs to the Range Instrumentation System Program Office (RISPO) for GPS and datalink equipment to be developed under their Enhanced Range Applications Program (EnRAP) Integrate the second iteration of the MAGIR I into next generation software receiver GPS instrumentation. Purchase Enhanced Range Applications Program (EnRAP) equipment. Integrate low cost GPS/IMU and low cost real-time GPS Deliver user interface for TSPI processing software upgrades.		1.123	1.572 1.346
(U) Data Processing Multi-Stage Improvement Program (DPMSIP). Deploy the first telemetry processor upgrade to support higher data rates and large data formats. Develop second telemetry processor upgrade kit to improve data transfer between systems. Develop a PC based common display system. Develop the first control room display upgrade kit. Develop additional standard post-test analysis software to support avionics flight-testing. Deploy common display system at three mission control centers.		1.303	2.185 3.787
(U) Next Generation Test Instrumentation. Integrate new measurement technology into multiple aircraft and support labs. Provide enhancements and improvements to the Internet based Instrumentation Management Information Systems to improve modification cost accounting and program management. Expand the capabilities of ILIAD to program multiple vendor hardware suites and preflight test articles and airframes. Develop airborne instrumentation components to address new sensor interfaces. Purchase instrumentation components to upgrade obsolete and unreliable instrumentation components. Replace obsolete data systems (ATIS, Metraplex) and unreliable data recorders on Test aircraft, support fleet, and Test Pilot School aircraft.		1.419	2.235 1.897
(U) AFFTC Range System Upgrade (ARSU). Expand the range digital voice communication system to meet increasing customer requirements. Implement range data command and control system to automate the setup, configuration, monitoring and reconfiguration of networks and widely dispersed end equipment supporting data, telemetry, voice, video and other real-time and non-real time data thereby increasing the number and quality of missions supported.			3.568
(U) Instrumentation Loading, Integration, Analysis, and Decommuration (ILIAD). Develop enhanced capabilities to program, load, operational check, and troubleshoot airborne data acquisition systems installed on test and evaluation vehicles. Modernize flight line ground support unit and engineering support unit hardware to current technological specification. Perform InterRange Instrumentation Group (IRIG) 106, Chapter 10 core upgrades as well as the MicroNET and Operating System upgrades. Provide improved and Range Commanders Council standardized enhancement and IRIG standard compliance to the components that decommutate, display, and process the data generated by the data acquisition system for preflight checkout, troubleshooting, and analysis. (FY03 and FY04 Congressional Insert)		2.511	3.371
(U) Electronic Countermeasures Upgrades for the Generic Radar Target Generator. Provides injected simulated radar targets as a part of the electronic warfare battlespace at the Benfield Anechoic Facility. (FY03 Congressional Insert)		1.931	
(U) Advanced Range Communications System. Procurement of the next generation digital voice communication system to support AFFTC Flight Test Range customers. Provide an enhanced digital voice capability with special emphasis placed			1.686

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<p>on software controls, supportability and commonality for AFFTC customers. (FY04 Congressional Insert)</p>			
<p>(U) B-52 Flight Test Instrumentation. Upgrade current flight data recorders to solid state technology. Build pallets to integrate the solid state recorders to the B-52. Establish a long term digital data archive for the flight data. Upgrade decom hardware/software to support flight test activities. (FY04 Congressional Insert)</p>		1.686	
(U)			
(U) Arnold Engineering Development Center			
(U)			
<p>(U) PWT Upgrades. Finalize installation and checkout of electric motor upgrades. Finalize installation and checkout of plant control systems. Acquisition planning of flow quality improvements.</p>		9.925	1.728
<p>(U) Improve Turbine Engine Structural Integrity. Develop the Non-Intrusive Stress Measurement System (NSMS) software and hardware systems. Final software validation and fabrication of the second NSMS. Procurement of a dynamic data system. Upgrade of the NSMS optical system. Improve C cells on-line dynamic data monitoring/processing bandwidth capability. Develop inlet flow distortion generator for High Cycle Fatigue (HCF) studies.</p>		1.668	2.629 2.577
<p>(U) Enhanced Turbine Engine Installation and Productivity (formerly JSF STOVL Engine Test Cells Upgrade). Design, procurement, and fabrication efforts for sea level (SL3) upgrades for JSF, F-22, F-15, F-16, F-18, and other programs. Design environmental systems (icing, steam, sand, corrosion). Install and checkout SL3 Thrust Stand, Inlet, and Servo Systems. Design and fabricate thrust stand and design electrical distribution system for SL2.</p>		2.667	2.344 1.335
<p>(U) Real Time Display and Analysis System. Design, procurement, installation, check-out and turnover of the J2 Test Unit Supervisory Systems (TUSS), 4T Test Article Control System, SL2 TUSS, C1 TUSS, 4T Pretest System, 4T Operator Center, and partial SL3 TUSS. Installation and checkout of the 4T Test System. Integrated checkout and turnover of the 4T Data Acquisition Processing Systems (DAPS). Design and procurement activities for the 4T Plant Automation effort.</p>		2.956	2.704 2.845
<p>(U) Propulsion Consolidation and Streamlining (PC&S). Jet engine test facility investment efforts to improve plant and test cell reliability, increasing test cell capability, and streamlining test processes.</p>			5.267 13.030
<p>(U) Laser Induced Surface Improvement (LISI) Technology. Expansion of LISI process to DoD components and development of LISI prototype processing facility for selected DoD target applications. (FY03 Congressional Insert)</p>		0.966	
<p>(U) MARIAH II Hypersonic Wind Tunnel. Experiments to prove enabling technologies for the wind tunnel concept in the areas of ultra high pressure air supply, supersonic energy addition, high Reynolds number boundary layer characterization, and nozzle survivability. (FY03 Congressional Insert. In FY04, the Congressional Insert was moved Army PE 0602303A)</p>		5.794	
(U)			
(U) Other Projects			
<p>(U) T&E Board of Directors Support. Coordinate tri-service investment efforts. Coordinate joint Reliance documents.</p>		0.305	0.150 0.150
<p>(U) Technology Insertion & Risk Reduction (TIRR). First TIRR subproject, Flight Safety System (FSS), developed ground processor station for Over-the-Horizon UAV operations, range safety interface and display software/hardware. Enhanced Time Space Position Information (ETSPI) subproject develops a low-cost miniature instrumentation package.</p>		0.804	1.000 0.500
Project 4597	R-1 Shopping List - Item No. 102-10 of 102-11		Exhibit R-2a (PE 0604759F)

Exhibit R-2a, RDT&E Project Justification	DATE February 2004
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BUDGET ACTIVITY 06 RDT&E Management Support	PE NUMBER AND TITLE 0604759F Major T&E Investment	PROJECT NUMBER AND TITLE 4597 Air Force Test Investments
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that provides accurate position, pitch and heading, in real-time, on air-to-ground weapons throughout its flight path. Low Observable Instrumented Tow-Target (LOIT) subproject involves development, signature evaluation, and instrumentation of a low observable tow target. Additional subprojects are planned for initiation in FY04 and/or FY05

(U)

(U)

(U) Total Cost	58.331	60.992	58.933
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(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

Related RDT&E: PE 0604256F, Threat Simulator Development; PE 0604940D, Central Test and Evaluation Investment Program; PE 0605804D, Development Test and Evaluation; PE 0603941D, Test and Evaluation Science and Technology; PE 0605807F, Test and Evaluation Support; PE 0605978F, Facility Sustainment and Support; and PE 0605976F, Facility Restoration and Modernization.

(U) **D. Acquisition Strategy**

This program element uses several different contracting strategies to provide the most cost effective T&E investment solutions. The main acquisition strategy is to use full and open competition wherever possible to improve and modernize existing test capabilities.