

## UNCLASSIFIED

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE

February 2003

BUDGET ACTIVITY

**03 - Advanced Technology Development (ATD)**

PE NUMBER AND TITLE

**0603311F Ballistic Missile Technology**

PROJECT

**4091**

COST (\$ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
4091 Missile Electronics	1,146	13,159	0	0	0	0	0	0	0	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

Note: In FY 1997, the Air Force eliminated this program. However, Congress added funds for Missile Technology Demonstration flight testing and Radiation-Hardened Electronics in FY 1998, for Ballistic Missile Technology and Range Safety in FY 1999, for Ballistic Missile Technology in FYs 2000 and 2001, for Global Positioning System Range Safety in 2002, and for Advanced Guidance Technologies for Ballistic Missiles and Range Safety Instrumentation and Common Guidance Development Program of Sensor Technologies in FY 2003.

(U) **A. Mission Description**

This program develops, integrates, and demonstrates advanced guidance, navigation, and control technologies for ballistic missiles, including upgrades of instrumentation for range safety instrumentation. Note: In FY 2003, Congress added \$11.8 million for Advanced Guidance Technologies for Ballistic Missiles and Range Safety Instrumentation and \$1.5 million for Common Guidance Development Program of Sensor Technologies.

(U) **FY 2002 (\$ in Thousands)**

- (U) \$0 Accomplishments/Planned Program
- (U) \$948 Developed technologies for the integration of advanced Global Position System-Inertial Navigation System (GPS-INS) technologies into space and missile range instrumentation and missile guidance systems to meet more stringent range safety requirements. Developed and demonstrated robust technologies for the command and control system providing non-interfering, continuous, two-way missile communication under all flight conditions.
- (U) \$124 Extended the acceptance and certification of qualified GPS-INS range safety technologies to meet launch-range requirements in more locations and encompassing more severe launch conditions.
- (U) \$74 Continued plasma technology development efforts to mitigate GPS communication loss through the reentry blackout phase of flight.
- (U) \$1,146 Total

(U) **FY 2003 (\$ in Thousands)**

- (U) \$0 Accomplishments/Planned Program
- (U) \$10,189 Develop, integrate, and demonstrate advanced guidance technologies applied to emerging designs that sustain current strategic missile systems. Develop new accelerometer technologies with the associated radiation hardenable electronics and flight computers required for future strategic missile applications. Develop, validate, and certify advanced, mobile range safety instrumentation extending prompt missile launch capabilities

Project 4091

Page 1 of 3 Pages

Exhibit R-2 (PE 0603311F)

## UNCLASSIFIED

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE

February 2003

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

03 - Advanced Technology Development (ATD)

0603311F Ballistic Missile Technology

4091

(U) **A. Mission Description Continued**(U) **FY 2003 (\$ in Thousands) Continued**

to existing and future range sensors.

(U) \$1,485 Develop advanced vehicle structures and designs for improved ballistic missile guidance and control. Develop and demonstrate sustainable technologies and material sources capable of reducing vehicle cost while increasing robustness, maintainability, and controllability to meet the unique requirements of the advanced ballistic missile mission.

(U) \$1,485 Develop advanced sensor technologies that are accurate and robust enough to provide the next generation of guidance instrumentation required for a broad range of future ballistic missiles. Identify the critical technical elements and component technologies needed to meet accuracy requirements, to extend range, to reduce maintenance costs, and to lengthen mean time between failures.

(U) \$13,159 Total

(U) **FY 2004 (\$ in Thousands)**

(U) \$0 Accomplishments/Planned Program

(U) \$0 No Activity

(U) \$0 Total

(U) **B. Budget Activity Justification**

This program is in Budget Activity 3, Advanced Technology Development, since it develops and demonstrates technologies for existing system upgrades and/or new system developments that have military utility and address warfighter needs.

(U) **C. Program Change Summary (\$ in Thousands)**

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Total Cost</u>
(U) Previous President's Budget	1,188	0	0	
(U) Appropriated Value	1,200	13,300		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-12	-141		
b. Small Business Innovative Research	-37			
c. Omnibus or Other Above Threshold Reprogram				
d. Below Threshold Reprogram				
e. Rescissions	-5			
(U) Adjustments to Budget Years Since FY 2003 PBR	0	0	0	

Project 4091

Page 2 of 3 Pages

Exhibit R-2 (PE 0603311F)

## UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)				DATE <b>February 2003</b>
BUDGET ACTIVITY <b>03 - Advanced Technology Development (ATD)</b>	PE NUMBER AND TITLE <b>0603311F Ballistic Missile Technology</b>			PROJECT <b>4091</b>
(U) <b><u>C. Program Change Summary (\$ in Thousands) Continued</u></b>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Total Cost</u>
(U) Current Budget Submit/FY 2004 PBR	1,146	13,159	0	TBD
(U) <b><u>Significant Program Changes:</u></b> In FY 1997, the Air Force eliminated this program. However, Congress added funds for Missile Technology Demonstration flight testing and Radiation-Hardened Electronics in FY 1998, for Ballistic Missile Technology and Range Safety in FY 1999, for Ballistic Missile Technology in FYs 2000 and 2001, for Global Positioning System Range Safety in 2002, and for Advanced Guidance Technologies for Ballistic Missiles and Range Safety Instrumentation and Common Guidance Development Program of Sensor Technologies in FY 2003.				
(U) <b><u>D. Other Program Funding Summary (\$ in Thousands)</u></b>				
(U) Related Activities:				
(U) PE 0602204F, Aerospace Sensors.				
(U) This project has been coordinated through the Reliance process to harmonize efforts and eliminate duplication.				
(U) <b><u>E. Acquisition Strategy</u></b>				
Not Applicable.				
(U) <b><u>F. Schedule Profile</u></b>				
(U) Not Applicable.				

Project 4091
Page 3 of 3 Pages
Exhibit R-2 (PE 0603311F)