ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

February 2002

BUDGET ACTIVITY	PE NUMBER AND TITLE
2 - Applied Research	**0602805A - Dual Use Science and Technology**

	COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate
	Total Program Element (PE) Cost	7593	13454	0	0	0	0	0
105	DUAL USE APPLICATIONS PROGRAM	7593	9954	0	0	0	0	0
NA2	MANUFACTURING RDE CENTER FOR NANOTECHNOLOGIES	0	3500	0	0	0	0	0

A. Mission Description and Budget Item Justification: The goal of this program element (PE) is to apply the Dual Use Science and Technology (DUST) Program process throughout Army agencies to leverage Army S&T development funds by partnering with the private sector in the development of technologies having both military and commercial applications and to mature and demonstrate processes for the bulk production of nanoscale materials. This PE contains two projects: Project 105 is the Dual Use Applications Program, and Project NA2 is the Manufacturing RDE Center for Nanotechnologies added by Congress for FY 2002. The objective of project 105, the DUST Program was primarily shorter-term military and commercial applications. Army funding for project 105 terminates after FY 2002, as Army S&T resources are focused on higher priority, accelerated Future Combat Systems and Objective Force transformation. Project NA2 to mature and demonstrate nanoscale manufacturing processes supports the Army transformation to the Objective Force. Work in this PE is consistent with the Army S&T Master Plan (ASTMP), the Army Modernization Plan and Project Reliance. Program policy is established by the Office of the Secretary of Defense (OSD), office of the Director, Defense Research and Engineering, and is managed within the Army by the Office of the Deputy Assistant Secretary of the Army for Research and Technology. The PE contains no duplication with any effort within the Military Departments.

B. Program Change Summary	FY 2001	FY 2002	FY 2003
President's Previous Budget (FY 2002 PB)	10061	10045	10604
Appropriated Value	10154	13545	0
Adjustments to Appropriated Value	0	0	0
a. Congressional General Reductions	0	-91	0
b. SBIR / STTR	-299	0	0
c. Omnibus or Other Above Threshold Reductions	0	0	0
d. Below Threshold Reprogramming	-2169	0	0
e. Rescissions	-93	0	0
Adjustments to Budget Years Since (FY 2002 PB)	0	0	-10604
Current Budget Submit (FY 2003 PB)	7593	13454	0

Change Summary Explanation:

Significant Changes:
FY01 (-2561) - Project 105 (-2561) funds realligned to higher priority requirements.

FY03 (-10889) - Project 105 (-10889) funds terminated.

FY02 - A Congressional Add was made for Manufacturing RDE Center for Nanotechnologies, Project NA2 ($3500).

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)

February 2002

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
2 - Applied Research	**0602805A - Dual Use Science and Technology**	**105**

COST (In Thousands)		FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate
105	DUAL USE APPLICATIONS PROGRAM	7593	9954	0	0	0	0	0

A. Mission Description and Budget Item Justification: The goal of this project is to apply the Dual Use Science and Technology (DUST) Program process throughout Army agencies to leverage Army S&T development funds by partnering with the private sector in the development of technologies having both military and commercial applications. The objective of the DUST Program was primarily shorter-term military and commercial applications. Army funding for this project terminates after FY 2002, as Army S&T resources are focused on higher priority, accelerated Future Combat Systems and Objective Force transformation. Work in this program element is consistent with the Army S&T Master Plan (ASTMP), the Army Modernization Plan and Project Reliance. Program policy is established by the Office of the Secretary of Defense (OSD), office of the Director, Defense Research and Engineering, and is managed within the Army by the Office of the Deputy Assistant Secretary of the Army for Research and Technology. The project contains no duplication with any effort within the Military Departments.

FY 2001 Accomplishments:

•	7593	Provided up to 25% of funding proposed by industry to support FY01 dual use technology development. The FY01 solicitation yielded 60 proposals, from which 19 proposals were selected in the following Focus areas: Weapons Sustainment - Log Command and Control (C2) Platform Telediagnostics; Manually Cranked Battery Charger; Affordable All-weather Rotocraft-Icing Protection System; Affordable Rotorcraft Structures; Advanced Materials And Manufacturing - Chemical/Biological (CB) Protective Clothing Based on Novel Membranes; Nanofibers for Chemical Protective Clothing Systems; Information And Communications - Embedded Short Range Wireless Networked Interconnect for Soldier Communications System; Information Processing (IP) Quality of Service-Mechanisms for Dynamic Mobile Heterogeneous Wireless Environment; Universal Personal Communication System/Mobile Satellite Services (PCS/MSS)Handset; Modulation Independent Turbo Codec; Advanced Propulsion, Power, And Fuel - Allison Hybrid Light Armored Vehicle and Civilian Heavy Hybrid Application; Simulation-based Design and Demonstration of Next Generation, Advanced Diesel Technology; Development of Advanced NiMH Battery for Heavy Duty Hybrid Electric Vehicles (HEV)Applications; High Efficiency Alternator & Climate Control System; Medical And Bioengineering - The Application of Electrode Arrays for the Development of a Rapid, Multiplexed Detection System for Biological Warfare and Infectious Disease; Development of a Subunit Vaccine for the Prevention of Campylobacter Disease; Dev. of a Dengue Virus Tetravalent DNA Vaccine Using Lysosome Associated Membrane Protein (LAMP)and Controlled Release Technologies; Development of a Live Attenuated Vaccine for the Prevention of Enterotoxigenic (ETEC) Diarrhea; and Microwave Sterilization.
Total	7593	

FY 2002 Planned Program

- 9954 - Provides up to 25% of funding for dual-use technology projects proposed by industry. Focus areas for Army topics in FY02 are anticipated to be: Affordable Sensors; Weapons System Sustainment; Advanced Propulsion, Power & Fuel Efficiency; Information & Communications Systems; Medical & Bioengineering Technologies; Distributed Mission Training; Advanced Materials & Manufacturing; and Environmental Technologies.

Total 9954

FY 2003 Planned Program

The Department terminated the Dual Use S&T Program for FY2003 and beyond