

Exhibit R-2a, RDT&E Project Justification

Date: February 2003

APPROPRIATION/BUDGET ACTIVITY
RDT&E, Defense-Wide/Applied Research - BA2

0602715BR

PROJECT NAME AND NUMBER:
Project BG - Nuclear Operations

Cost (\$ in millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Project BG - Nuclear Operations	135.0	Realigned	0	0	0	0	0	0

A. Mission Description and Budget Item Justification:

- These programs directly reflect the National Military Strategy, support the provisions of Joint Vision 2020, and are directed by the JCS in the Joint Strategic Capabilities Plan (JSCP) Nuclear Annex. This project has been reorganized into three activities: 1) Nuclear Programs, 2) Combatant Commands/Forces/Security Support and 3) a new activity--WMD (Nuclear) Protection and Response. Responsive to the oversight of the Nuclear Weapons Council, they provide critical support to the Combatant Commands, Services, JCS and OSD. This project continues the realignment begun by DTRA at its inception so as to deal with the emerging 21st Century strategic landscape, and is divided into the three areas as described above:

- Nuclear Programs . Nuclear Weapons Surety:** As tasked by the DoD Nuclear Weapon System Safety Program, the surety programs will provide Combatant Commands, Services, and JCS with technical analysis, studies, research, and experimental data to identify and quantify risks of plutonium dispersal and Loss of Assured Safety (LOAS) due to accidents, fires or natural causes during normal, peacetime operations of the nations nuclear weapon systems. Additionally, studies to quantify the probability of success of targeted terrorist attacks on DoD facilities, leveraging these risk assessment advances.
 - Nuclear Mission Management Plan (NMMP): As tasked by Deputy Secretary of Defense and Director, Defense Research and Engineering (DDR&E), and in support of national requirements to maintain a strategic nuclear deterrent, conduct assessments and develop long-range plans, the continued development of the DoD Nuclear Mission Management Plan is designed to provide a comprehensive, integrated DoD roadmap for the sustainment and viability of U.S. nuclear forces, personnel, and infrastructure.
 - Stockpile Sustainment: Continue to act as DDR&E's Executive Agent for Annual Certification and Dual Revalidation and support related stewardship and sustainment activities.
 - Stockpile Operations Support: In support of national requirements to maintain a viable nuclear deterrent, this program provides automated tools to maintain, report, track and highlight trends affecting the nuclear weapon stockpile. It will provide crucial business process and information support to ensure continued sustainability and viability of the nuclear stockpile.
- Combatant Commands/Forces/Security Support.** As tasked by the JSCP and DoD Directives, these programs will provide Combatant Commands, Services, JCS and DoD with focused analyses in support of nuclear planning and operations and WMD threat mitigation as they pertain to the combat survivability of the forces. Additionally, they provide the DoD nuclear physical security applied research and force-on-force (FoF) testing programs to help insure the security of our nuclear forces. Provides technical support and curriculum development and enhancement for the Defense Nuclear Weapons School (DNWS), to include other WMD support, and other DoD nuclear training activities.
- WMD (Nuclear) Protection and Response.** As a new activity and in direct support to the National Military Strategy, these programs will promote initiatives to detect the surreptitious introduction and use of weapons of mass destruction against the U.S. and its allies thereby protecting our citizens and critical infrastructures. Potential adversaries, whether nations, terrorist groups or criminal organizations, will be tempted to use asymmetric means

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of war such as WMD to counter U.S. conventional weapon superiority. Promoting such initiatives enhances deterrence and proactively supports the agency's mission of WMD threat reduction.

B. Accomplishments/Planned Program:

Cost (\$ in millions)	FY 2002	FY 2003	FY 2004	FY 2005
Nuclear Programs	18.0	Realigned		

FY 2002 Accomplishments

- Nuclear Weapon Surety Thrusts:
 - Continued the B-2 Weapon Safety System Assessment (WSSA).
 - Completed Storage Vault Blast Effects Testing and Analysis.
 - Performed a classified safety study of a DoD nuclear facility.
 - Initiated a weapon safety lightning protection workshop.
 - Conducted a review of explosives safety analysis model.
 - Completed the validation of the Storage Facility (Lightning) Tester.
 - Continued the development and population of the "Nuclear Surety Information Center," a weapon safety database of completed assessments, studies, and test programs.
 - Continued Phase II Small Business Innovative Research (SBIR)– Automated Vulnerability Evaluation for Risks of Terrorism (AVERT) and Isis Fire Modeling Program.
- Stockpile Sustainment Program Thrusts:
 - Supported annual certification and stockpile stewardship for the continued safety and reliability of the U.S. nuclear stockpile in the absence of undergroundtesting.
 - Performed assessments and provided support to the Nuclear Posture Review and End-to End Review.
 - Continued the "Nuclear Deterrent Support Program".
 - Supported development of the Nuclear Weapons Stockpile Plan and the Requirements & Planning Document.
 - Developed "Outreach 21" for nuclear expertise support to operational units.

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- Prepared an annual performance report, as directed by Presidential Decision Directive #15(PDD), on the DoD stockpile sustainment accomplishments and future plans.
- Provided technical support to the Nuclear Weapons Council (NWC) and Joint Advisory Committee on Nuclear Weapons Surety (JAC).
- Prepared FY 2003 Edition of the NMMP.
- Stockpile Operations Thrusts:
 - Developed and implemented the Defense Integration and Management of Nuclear Data Services (DIAMONDS) capability package 2, which included additional enhancements to Maintenance Bay and Unsatisfactory Reporting System modules, initial Joint Nuclear Weapons Publication System (JNWPS) online access to pubs, as well as, fielded additional integrated modules based upon user priorities and feedback while continuing to enhance fielded modules. Linked 4 CONUS nuclear storage sites with secure communications to support DIAMONDS data transmission and access to stockpile information, tools, and data. Performed OCONUS exploratory visits for unique site requirements. Performed Joint Application Design for Electronic Inspection Record Cards (IRC) and Weapon Information Reports (WIR). The Special Weapons Information Management (SWIM) system also was integrated in this FY.

FY 2003 Plans

- Funding and activities realigned to Project BG in PE 0602717BR and Project BG in PE 0602716BR.

• **FY 2004 Plans**

- Funding and activities realigned to Project BG in PE 0602717BR and Project BG in PE 0602716BR.

Cost (\$ in thousands)	FY 2002	FY 2003	FY 2004	FY 2005
Combatant Command/Forces/Security Support	7.8	Realigned		

FY 2002 Accomplishments

- Maintained USEUCOM/SHAPE European Theater Nuclear Support Program to provide in-theater nuclear and WMD support to EUCCOM and NATO.
- Jointly with the CP Directorate, continued the War Plans Support Program for the Combatant Commands. Objective is to provide operational analyses dealing with theater WMD planning issues supporting the development of Combatant Command CONOPS, CONPLANS and OPLANS.

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- Continued support to STRATCOM and regional Combatant Commands with specific nuclear and WMD threat analyses in support of Single Integrated Operational Plan (SIOP) preparation, development of integrated effects models, direct planning support to regional Combatant Commands, and specified applications for the Deterrence Framework analytic structure.
- Continued to execute the Strategic Deterrence Program to support full range of nuclear and WMD Consequence Management Issues, provide nuclear policy support and the assessment of the full range of nuclear/WMD issues for DoD components.
- Completed targeting program to fully integrate the planning processes and target data set of STRATCOM, regional Combatant Commands plans and NATO nuclear planning capability.
- Conducted Force-on-Force exercise program focused on U.S. forces in USEUCOM/USAFE using the Mighty Guardian series.
- Completed support of the Air Force Space Command (AFSPACECOM)/STRATCOM security analyses of ICBM forces.
- Plan to support potential Mighty Guardian Exercise.
- Initiated new program to examine and evaluate the future impacts of technology on political/military/economical trends-focused on WMD/Consequence Management
- (CM)/Nuclear proliferation.
- Completed NATO Nuclear C2, Quadrennial Defense Review Analytical Support program.
- Continued to directly support the curriculum development for the Defense Nuclear Weapons School
- Continued to serve as the DoD Executive Agent for nuclear weapons training and education.
- Began development of a comprehensive WMD Training program.
- Continued to expand and enhance expertise outreach training program across DoD.

FY 2003 Plans

- Funding and activities realigned to Project BG in PE 0602717BR

FY 2004 Plans

- Funding and activities realigned to Project BG in PE 0602717BR.

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