

<b>Exhibit R-2a, RDT&amp;E Project Justification</b>		Date: February 2006
<b>APPROPRIATION/BUDGET ACTIVITY</b> RDT&E, Defense-Wide/Advanced Technology Development - BA 3	<b>PROJECT NAME AND NUMBER:</b> 0603160BR Project BK - Counterforce	

- The Hard Target Defeat (HTD) program develops and demonstrates new weapons, delivery concepts, and planning capabilities to defeat Hard and Deeply Buried Targets. The following demonstrations are part of the current plan:
  - The Thermobaric ACTD will take advantage of existing technologies to weaponize, demonstrate, and deliver an improved weapon system for the functional defeat of tunnel targets. The program will take an overall systems approach to integrate improvements in flight guidance software for the Enhanced Guided Bomb Unit (EGBU-15), a newly developed 2000 lb. class Bomb Live Unit (BLU)-121/B hardened steel warhead case, and an enhanced blast explosive for improved weapon effects in a tunnel environment. Prototypes will be tested under operational conditions to verify their performance, and residual assets will be provided to the customer as an interim capability to defeat tunnel targets. The Thermobaric ACTD conducted three operational demonstrations in FY 2005 against an operationally representative underground facility complex.
  - The Tunnel Target Defeat ACTD will develop a planning tool that will improve the warfighter's confidence in selecting the smallest proper nuclear yield necessary to destroy underground facilities while minimizing collateral damage. The focus of the demonstration is to reduce the uncertainties in target characterization and weapon effect/target response. Target characterization uncertainties include those related to determining the target function, layout, operational status, and the geological and geotechnical features. Weapons effects/tunnel response uncertainties are associated with predicting ground shock and tunnel response in layered and jointed media.
  - The Intelligent Munition for the Precision Attack on Critical Targets (IMPACT) Advanced Technology Demonstration (ATD) will develop a demonstration system using existing technology and conduct a proof-of-concept demonstration for defeating ground combat vehicles that take sanctuary in tunnel complexes. These vehicles include multiple rocket launch systems (MRLS) and theater ballistic missile systems (TBM) that attack while outside the tunnel. These vehicles reduce their vulnerability by retreating into tunnels once launch operations have concluded. This Proof of Concept Demonstration will demonstrate a means to provide a quick response to kill these targets while they are most vulnerable during launch operations.
- Global Strike Integration Technologies:
  - The Global Strike program integrates capabilities to characterize, plan, execute and assess limited duration rapid response strikes, against any target, anywhere on the globe, with a variety of weapons. The Global Strike program at DTRA will integrate ongoing efforts between USSTRATCOM, multiple DTRA projects and the Intelligence Community to reduce the time required to plan, execute and assess the results of a Global Strike mission. One of these efforts is the development, integration and eventual transition of a weapon-borne sensor system to be used by the Warfighter to conduct combat assessment. The Global Strike

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- Conduct the Tunnel Target Defeat ACTD large-scale tunnel defeat demonstration using high explosives to produce the desired ground shock environment at the Department of Energy's Nevada Test Site. Deliver validated analysis and planning tools for use in characterizing and "weaponeering" the large-scale test event. Conduct a Military Utility Assessment. Prepare final program documentation and reports. Begin transition of improved tunnel ground shock defeat planning tools to USSTRATCOM.
- Complete Intelligent Munitions for Precision Attack of Critical Targets (IMPACT) ATD system component study and begin concept development.

**FY 2007 Plans:**

- Provide sustaining support and training for Thermobaric ACTD residual weapons. Conduct demonstration of BLU-121/B warhead with EGBU-24 guidance kit.
- Provide transition support of improved tunnel ground shock defeat planning tools to USSTRATCOM. Complete large-scale post-test event assessment and test-site safing.
- Conduct Intelligent Munitions for Precision Attack of Critical Targets (IMPACT) Advanced Technology Demonstration.

Cost (\$ in Millions)	FY 2005	FY 2006	FY 2007
Global Strike Integration Technologies	0.000	3.250	3.250

**FY 2005 Accomplishments:**

- FY 2005 accomplishments are described under WMD Counterforce Applications.

**FY 2006 Plans:**

- Continue Global Strike Integration. Complete weapon-borne sensor feasibility studies and trade-off analyses. Conduct a limited experiment, proof-of-principle flight test of the Battle Damage Reporting System using a Tomahawk Land Attack Missile – Dispenser Variant (TLAM-D). Conduct a limited experiment, proof-of-principle flight test of weapon-borne sensors using a chemical sensor and an aerial version of an unattended ground sensor in a Wind Corrected Munitions Dispenser (WCMD) Tactical Munitions Dispenser (TMD). Draft Battle Damage Assessment Concept of Operations (CONOPS).