



CTTSO

Combating Terrorism Technology Support Office

Blast Effects & Mitigation Subgroup



Advance Planning Briefing for Industry

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Mission

Identify, prioritize, and execute research and development projects that satisfy interagency and international requirements to define and mitigate the potential damage mechanisms from conventional and enhanced explosive mixtures.



Subgroup Membership

Department of Defense

Department of Justice

Department of Energy

Department of Homeland
Security

US Secret Service

Department of State

National Institute of
Justice

National Institute of
Standards and Technology

Intelligence Community



Terminology

IMEA = Integrated Munitions Effect Assessment

HME = Home Made Explosive (s)

PBIED = Person-Borne Improvised Explosive Device

VBIED = Vehicle-Borne Improvised Explosive Device

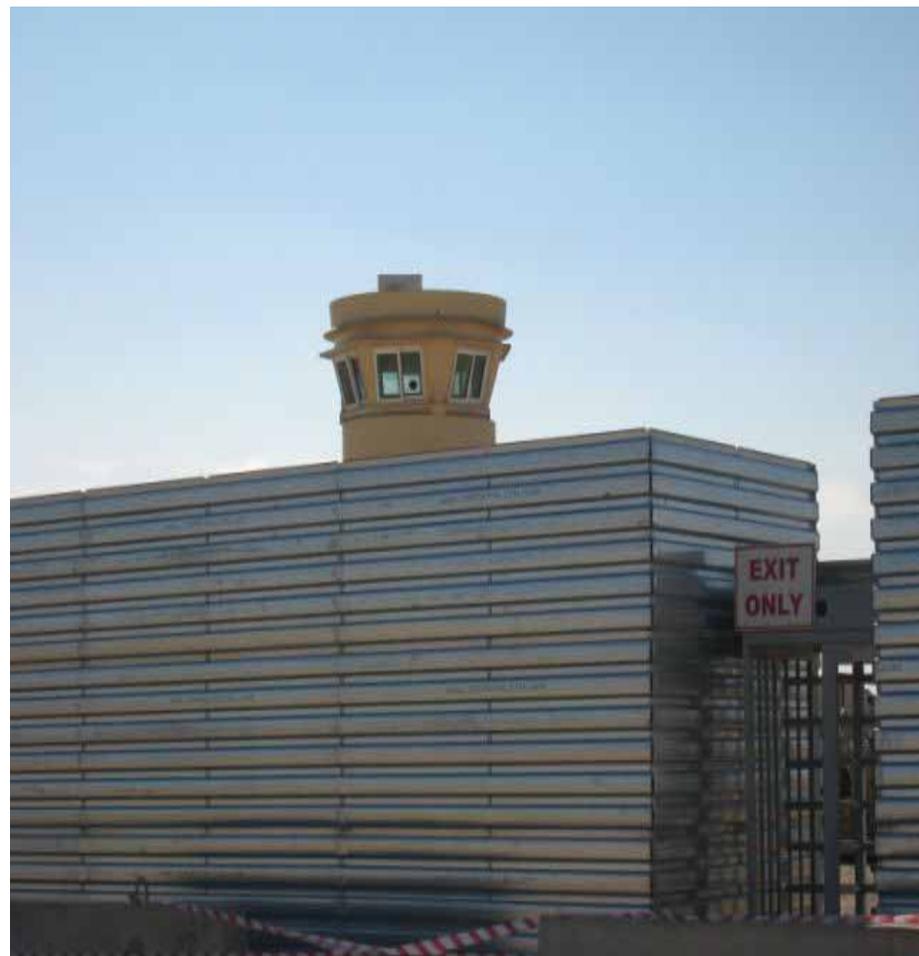


2008 Success Stories

Portable System for The Warfighter to Apply Advanced Polymers



Entry Control Point Pilot Program



Without Polymer



With Polymer





FY 2010 Requirements

R2491: NEW and INNOVATIVE Expedient Construction for Forward Fighting Positions

- New, innovative, lightweight and expedient facility for forward fighting positions.
- Designed as an over watch position or a sentry post survivable within a high threat area.

Minimum requirements :

- Material shall provide both ballistic and blast resistance (i.e., high strength or ductile).
- Low Cost.
- Lightweight Design.
- Purchased as a Kit.



FY 2010 Requirements

R2491: NEW and INNOVATIVE Expedient Construction

- Material shall be able to survive austere environment for at least six months (taking into account heat and cold ranges, and arid to humid ranges).
- Live blast testing a VBIED (200 – 800 lbs, TNT equivalent), and PBIED (5 – 35 lbs TNT equivalent).

The deliverables for this effort will include:

- Assembly procedure for minimally skilled labor in a predetermined kit, in a configuration capable of transport via commercial and military means.
- Products for in-theater testing.



FY 2010 Requirements

R2490: Blunt Trauma from Massive Projectile Impacts and Whole Body Displacement

A significant source of injuries in blast attacks include blunt trauma.

Need to quantitatively characterize the nature and severity of these types of injuries in sufficient detail to enable prediction of both incapacitation and medical response requirements.

Minimum requirements for an appropriate solution are:

Phase One

- Survey existing relevant test data.
- Review of existing blunt trauma and whole body displacement predictive methodologies.
- Develop experimental program to fill identified data gaps.



FY 2010 Requirements

R2490: Blunt Trauma from Massive Projectile Impacts

Phase Two

- Development of a predictive methodology for large projectile blunt trauma injuries.
- Validation of the predictive methodology using a combination of experimental and epidemiological data.

Deliverable from this effort will include:

- Predictive methodology implemented into a Windows-based application that can be incorporated into engineering-level modeling and simulation tools.



FY 2010 Requirements

R-000-BX10 BX Unspecified Requirement

Submit under this number and title any new (or improved) technologies or emerging technological capabilities pertaining to the field of Blast Mitigation. The technological areas of interest are:

- (1) Blast protective materials and systems.
- (2) Items mitigating human injury from the effects of blast events.
- (3) HME effects.



Contact Information

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