FAQs – Blast Overpressure Protection

Last updated December 5, 2025

The solicitation states that "two functional exits must remain accessible." Is this intended to preclude the use of lightweight blast-resistant doors or panels that may cover the two open ends of the bunker structure? Or are the two exits considered accessible if lightweight doors or panel covers are in place?

Blast-resistant doors/panels may be used as long as they are operational and remain operational for exits.

Is the Government seeking mitigating solutions to explosions originating outside of the building/bunker or explosive charges detonating inside the same space as the occupants?

Both. The first test case will be a bunker with a large explosion at least 50 ft away. Additional test cases will consider smaller charges in the same space as the occupants. Solutions do not have to work in both scenarios. Solutions will be considered for the scenarios with applicability.

Is the motivation of this effort focused on limiting overpressure exposure to personnel inside the bunker through openings and/or shock reflections? Or would solutions intended to limit potential for structural collapse be part of this effort as well?

The current effort aims to limit overpressure exposure. Blast loadings where structural collapse is possible will not be considered.

Could you please share the blast parameters used for the testing—specifically the charge weight, charge type, and stand-off distance—as well as the wall/ceiling section details?

The Government is looking for commercial solutions that reduce blast pressure and impulse within the structure to reduce blast-induced injuries to occupants. Structural damage is not a concern. The Government will be measuring pressure and impulse reductions within the enclosed/semi-enclosed space.

Are wearable, pocket-carried, or individual-use technologies that protect the Warfighter from the physiological effects of blast overpressure considered within the scope of this CSO, provided they mitigate the primary health outcome of concern (e.g., TBI)? Will testing only measure physical overpressure reduction inside the structure, or will physiological protection outcomes (e.g., reduction of biomarkers or indicators associated with blast-induced TBI) also be accepted metrics for evaluation? Is the Government's primary interest in: a) reducing the magnitude of overpressure within structures, or b) reducing the blast-related health effects on personnel, or are both viewed equally?

Wearable, pocket-carried, or individual-use technologies that protect the Warfighter from the physiological effects of blast overpressure are not within the scope of this CSO. Testing will only measure the physical overpressure reduction and changes to the blast environment inside the structure. Physiological protection outcomes (e.g., reduction of biomarkers or indicators associated with blast-induced TBI) will not be evaluated. The Government's primary interest for this CSO is reducing the magnitude of overpressure within structures and manipulating the blast environment.

Would technology and capability to reduce overpressure be considered if it would be an addition to already existing structures (i.e., attached to the interior walls, floors, ceilings of a bunker or shoot house)?

Yes.