



US DEPARTMENT OF DEFENSE

BLAST INJURY RESEARCH PROGRAM COORDINATING OFFICE

Protective Equipment

Improved Underbody Protection Design Excursion

Under the FFV Program, the Program Manager Armored Fighting Vehicles has requested that each contractor create a clean-sheet design for a new infantry fighting vehicle that can resist 5X underbody threats as the threshold level. This can be achieved through advanced materials, hull shaping, suspended floors, blast seats, or any other means available. Phase 1 Science and Technology contract period of performance began on 29 May 2015. The contractors have begun to bind the problem with concept designs. Currently, BAE Systems plans to form the underbody from 7020 Aluminum with an Al 5056 plate bolted on as a kit. General Dynamics Land Systems is investigating a four-inch aluminum trapezoidal shape in a welded structure. (Additional technical detail is available but competition-sensitive and requests for it should be directed to the Program Manager Armored Fighting Vehicles). This design excursion is intended to push the state-of-the-art in underbody design. If the contractors can achieve more than double the required value in the capability development document, as this is, the program can look to increasing the minimum requirement on future vehicles. If the requirement cannot be achieved, it will provide valuable information to inform the requirement and the associated trade space.