Protective Equipment

Parametric Optimization Study

Under the US Army's Future Fighting Vehicle (FFV) Program Bridge Extension Contract, General Dynamics Land Systems researchers performed a parametric optimization study on armor materials and thicknesses. The study was completed in mid-April 2015, and the results were briefed to Product Manager FFV on 29 April 2015. The study showed that by intelligently forming the underbody shape, aluminum, at the same areal density as steel, performed better due to the improved stiffness characteristics of a thicker material. Additional technical detail is available, but the information is competition-sensitive, and requests for it should be directed to Product Manager Armored Fighting Vehicle. This data was used to inform future designs for FFV. Under the FFV Phase 1 Science and Technology contract, all proposed designs now use an aluminum underbody.