



US DEPARTMENT OF DEFENSE

BLAST INJURY RESEARCH PROGRAM COORDINATING OFFICE

Equipment Testing

Forensic Outcomes of Vehicle-borne Improvised Explosive Devices

Researchers at the U.S. Army Engineer Research and Development Center (ERDC; Vicksburg, MS) in partnership with the National Ground Intelligence Center (NGIC; Charlottesville, VA), the United States Army Tank Automotive Research, Development and Engineering Center (TARDEC; Warren, MI) and the U.S. Army Research Laboratory (ARL; Aberdeen Proving Ground, MD) are conducting a series of studies with the goal of developing technologies, procedures, and training to enable identification of weapons systems, involved in attacks on U.S. and Allied Forces using forensic data collected at post-attack scenes. In a key study, ERDC researchers are evaluating the forensic outcome of vehicle-borne improvised explosive devices (VBIEDs) using convoy VBIED experiments that simulate attacks against military vehicles. Occupancy injury related to VBIED blast events are captured using onboard instrumentation.

Hazards from VBIED events are quantified and correlated to observed forensic data, and damage to vehicles and structures. Overall, these efforts provide critical insight into blast effects from these types of threats on vehicle occupants and may be used for improvements in protective design systems.

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