Convoy Protection: Aggressive Acts

- Examine threat reduction behaviors (avoidance, evasion, escape) to light, sound, and blunt impact threats from rock throwers while “attacking” a passing military truck.
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<td>14. ABSTRACT:</td>
<td>Non-lethal Weapon Effectiveness Testing at the Army’s Target Behavioral Response Laboratory.</td>
<td>15. SUBJECT TERMS:</td>
<td>Non-lethal weapons, effectiveness testing, convoy protection, aggressive acts, blunt impact, tactical checkpoint, crowd, motivation, human behavior, flight characterizations hand thrown projectiles, automation of experimental design, pyrotechnics, personnel areal denial</td>
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Blunt Impact Experiment: Self Induced Pain

- Measure and analyze avoidance and escape behaviors to self-inflicted blunt impact.
- Examine tissue damage based on intensity and body location of hit.

ARDEC IRB # Submitted
Approval Pending
Tactical Checkpoint: Hail/Warn/Suppress

- Use standardized test bed to compare various non-lethal hail/warn/suppression technologies to baseline items (ie high beams) to determine effectiveness in a tactical checkpoint scenario.

ARDEC IRB # 100801
Approved
Crowd Studies: Motivation & Behavioral Manipulations

- Examine threat reduction behaviors of crowds to both blunt impact and monetary penalties via motion capture system.

- Study and analyze effects of assigned motivated personalities on crowd dynamic.

ARDEC IRB # Submitted
Approval Pending
Flight Characterization: Hand thrown projectiles - RKG

- Real-time motion capture of 6DOF via VICON software/hardware system
- Multi-view camera setup coupled with (2x2ft) 3D grid allows for high res analysis.
• Labview Software is used to develop customized algorithm and interfaces to control experiments and data collection at the TBRL.

• Record speed, position, response to stimuli, and timing of a participant in a Tactical Checkpoint scenario.

• Real time data stream to spreadsheet files as participant navigates course.

• Customized electronics to facilitate automation of experiments.
Blunt Impact: Minimal Intrinsic Motivation

- Determine baseline for suppressing approach by use of blunt impact under low intrinsic motivation conditions.
Personnel Area Denial: Pyrotechnics

• Joint project with Intelligent Munitions Systems (IMS) to study effectiveness of pyrotechnic devices in deterring unsuspecting individuals.

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