Personnel Protection Mission

- Identify, prioritize, and execute research and development projects that satisfy interagency requirements for protecting personnel against terrorist attacks.
Focus Areas

Fixed Security

Information Resources

Individual Protection

Mobile Security
Multi-Hit Ballistic Test Fixture

- Developed a ballistic firing device that can vary:
  - Firing rate
  - Pattern
  - Obliquity

- Provide a true assessment of armor against multiple hits

- One system to be delivered to NIJ to possibly be included in the standards
Develop a reliable and validated device to evaluate the performance of body armor.

Two test fixtures developed:
- Penetration rig – human like form to test armor to failure
- Trauma rig – instrumented device to determine injury severity of non-penetrating injury (BABT)

Transition device and protocols to NIJ to possibly include in the Body Armor Standard.
Testing Methodology for Ballistic Helmets

- Identify key design characteristics of helmets for optimizing protection against BABT under ballistic, blast and impact loading conditions
- Provide an extensive bullet/fragment threat severity comparison
- Provide technical data required to update ballistic helmets test standards
Blast Effects on Personnel Wearing Helmets

- Develop an instrumented headform to measure trauma experienced by the head during blast events.
- Correlate data to injury models to predict probabilities of injury.
- Strategies will be developed for mitigating negative effects caused by blast.
- Project completion 3QFY09.
STF Kevlar Study

- Develop optimized ballistic resistant fabric by adding shear thickening fluid (STF)
- STF provides increased spike and knife protection
- Concealable body armor prototype currently being optimized
Develop a database containing current armor and future armor trends

Searchable database capable of querying armor types and properties:
- Vehicle armor
- Body armor
- Transparent armor
- Protection level
- Manufacturer’s location
Contact Information

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