An urgent requirement existed in 2004 for the Army to prevent and/or minimize fuel leakage on fuel tankers due to small arms fire from insurgents. A self-sealing/self-healing external fuel tanker membrane system was developed to meet this urgent need. The system utilizes technology developed by High Impact Technologies™ (HIT) and Rhino Linings®. The membrane uses a spray polyurethane elastomer and proprietary additive which combine to expand and seal permanently the undesired holes from ballistic penetration. A specialized application process was also developed to allow the US military to apply the system to fuel tankers in the field and in theater.

**Key Attributes**
- Prevents fuel loss caused by IEDs, mines, and small arms fire.
- Field repair patch kit available for larger puncture areas.
- Provides vibration and acoustic damping.
- Thermal insulation.
- Adds structural integrity.
- Applicable to both metal and plastic surfaces.
- Provides superior corrosion and abrasion protection.
- Tenacious adhesion for long-term service.
- Available in various colors.
- Self-sealing polymer.

**Application**
- A specialized process was developed which requires a closed-in spray booth with unique equipment to apply the additive.
- A mobile spray-application facility has been developed which brings the process to any location.
- Specific thicknesses of the coating have been developed for various tank geometries, tank substrates and ballistic threats.
- Now serving in multiple battle arenas.

**The Future**
The BattleJacket - Fuel Containment System (FCS) is the appropriate technology to bring to any vulnerable vehicle, train or ship-based fuel tank. This technology is applicable to storage tanks, pipelines and other fuel structures worldwide.