Cubic’s combat vehicle system instruments tactical and combat vehicles enabling force on force engagement training. This advanced wireless vehicle solution for simulation training comprises a Tactical Vehicle System (TVS) overlaid with a shooter kit. The CVS is interoperable with MILES, infantry weapons and Anti-Armour Weapon Simulation Systems (AAWSS), for seamless integration into a Combat Training Center.

This system receives threat events communicated via laser (direct fire weapons), short range radio (exploders) and player unit radio (simulated area effects, geometric pairing). A sustained hit results in damage assessment, hit indication and crew notification.

Cubic’s CVS instruments platforms ranging from civilian, tactical and combat vehicles to buildings, fortified areas, etc.

**BENEFITS**
- Wireless laser detectors, minimizing cables
- Battery powered and/or augmented from vehicle power
- Generic instrumented configured per platform (vehicle, building)
- Situational interface to Crew (intercom, menu display)
- Qualified to MIL-STDs

**OVERVIEW**
The CVS is a wireless laser-engagement instrumentation system, deployable across a range of combat vehicle platforms (e.g., Infantry Fighting Vehicle, Main Battle Tank, soft-skin) and structures (e.g. building, fortified area, etc). The CVS solution simulates the use of vehicle-mounted weaponry in the battlefield.

**MAJOR COMPONENTS**
- **Display Module (DM)**
  - Visual and audio (sound effects)
  - Wireless
- **IPOD**
  - Controller functions
  - Graphical step-by-step installation wizard
- **Vehicle Kill Controller (VKC)**
  - Main system coordinator
  - Performs casualty assessment using internal, configurable Probability of Kill data based on ammunition and vehicle vulnerability
  - Can record all events for playback during AAR
  - Provides data communications interface for Player Unit instrumentation to support real-time monitoring and control
  - Externally powered with internal backup battery for 100+ hours operation
- **Vehicle Kill Mast (VKM)**
  - 1,800 meter visibility
  - 360-degree field of view

- **Small Arms Transmitter (SAT)**
  - PMT-90 compliant
  - Disabled when system is catastrophically or firepower killed
  - Wireless
  - Single, user-replaceable ½ AA battery provides 600+ hours operation

- **Vehicle Detector Module (VDM)**
  - PMT-90 compliant laser decode
  - Wireless
  - > 120 degree Field of View
  - Single, user-replaceable L91 AA battery provides 900+ hours operation

- **Serial Module RF Interface (SMRFI)**
  - Provides RF communication inside and outside the vehicle
  - No cable entry point required
  - Extends coverage to wireless detectors

- **Main Gun Assembly (MGA)**
  - Universal fixture mounted to Remote Weapon Station, Canon and Main Gun, providing weapon effect simulation

- **Vehicle Interface Module (VIM)**
  - Links the simulation instrumentation to the vehicle’s fire control system

- **Zigbee End Device (ZED)**
  - Provide an RF link from interior to exterior from VIM to MGA, minimizing cables about the vehicle