Synthetic Wrap

Features and Benefits

- Delivers affordable and realistic field training for Joint Fires and ISTAR force elements.

- Allows correct training of mission planning and execution across multiple training audiences.

- Enables force-on-force exercises to be equipped with representative capabilities to optimise the peer/near peer fight.

- Contributes to multi-domain training by integrating maritime and air effects from live or virtual platforms.

- De-risks live training and force readiness by allowing the techniques, tactics and procedures of Joint Fires and ISTAR integration into exercises without the safety constraints present in live firing.

- An After Action Review (AAR) capability allows commanders to examine and debrief tactical training to improve performance and enhance readiness.

Overview

Cubic's Synthetic Wrap expands the instrumented live training environment by the addition of virtual and constructive training systems, allowing the soldier to train with platforms and deliver effects that would otherwise be prohibited by cost, scarcity or safety. It seamlessly integrates the delivery of virtual and constructive Joint Fires and Intelligence, Surveillance and Target Acquisition and Reconnaissance (ISTAR) effects into field training.

Synthetic Wrap allows the user to deliver complex tactical training at the individual, team and collective levels. Our approach puts the control of mission execution in the hands of the commander and their team in the field, improving force preparation and reducing risk in readiness.

Synthetic Wrap is expeditionary, and combines state-of-the-art tactical simulation with proven instrumented live training to deliver a complex and challenging training environment.
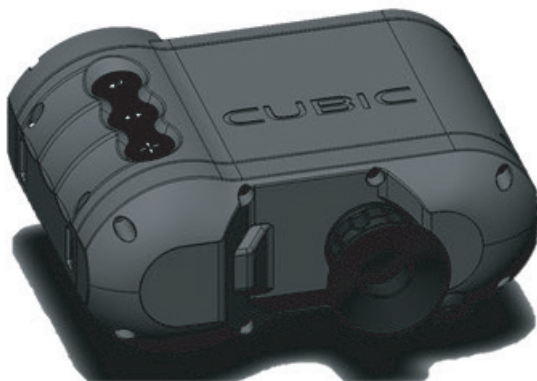
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System Synopsis

Cubic's Synthetic Wrap mirrors real world training through the accurate geo-referenced re-creation of terrain and exercising forces. Soldiers in the field are able to observe this virtual world through mission appropriate hardware, which can be enhanced through the addition of constructively simulated forces. Simulated effects are relayed to instrumented troops so that the consequences of action are correctly reflected. Our system capabilities are:

■ Tailored to individual exercises and training objectives by our experienced personnel.

■ Expeditionary and infrastructure independent.

■ Deployable as a distributed capability.

■ Scalable from fire-team to joint force and able to be used by both military and non-government organisations.

Representative Capabilities

■ **Joint Fires.** The full range of indirect fires can be supported: artillery, rockets, mortars and missiles, including naval gunfire support, precision weapons, close air support and attack aviation.

■ **ISTAR platforms.** Includes armed Unmanned Air Vehicles, tactical systems, electronic warfare, weapon locating assets (radars and sound ranging systems), as well as non-traditional systems (e.g. remote optical sensors).

■ **Ground-Based Air Defence.** Surface to air missile systems can be used to synthetically engage instrumented live and virtual targets.

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