

Precision Gunnery System



Providing Unparalleled Precision, Fidelity and Realism

Cubic's advanced Precision Gunnery System (PGS) – the most advanced high-fidelity simulation product of its kind – is a superior and cost-effective system for both precision gunnery and force-on-force tactical training.

The Cubic system provides crew training in all modes of operation, employing the full range of engagement doctrines in the harshest environments.

PGS is a high-fidelity simulation system that has the reliability to withstand rugged combat maneuver environments – and the precision necessary for gunnery training. It also is the only system that provides unrestricted “fire-and-forget” capabilities and simulates tactical engagements at extended ranges. The Cubic

PGS simulates hit accuracies that are consistent with projectile dispersion characteristics, accurately replicating live fire results.

The training experience is supported by real-time feedback to trainees and extensive After Action Review (AAR) capabilities through both a “blue tooth” data collection port and a real-time data link. AARs for gunnery and small-unit tactical training can be conducted on commercially available PCs or portable laptops. PGS is also designed to become an integral part of any Combat Training Center - Instrumentation System (CTC-IS) without having to incorporate additional costly components into the PGS vehicle system.

PGS' architecture allows for growth capability and adaptation to new weapons, munitions and countermeasures. This satisfies the training needs of your heavy/medium forces – today and on tomorrow's digital battlefield.



How It Works

PGS merges the principles of realistic simulation with features of MILES 2000 and the advanced Individual Weapon System (IWS) to provide the highest training fidelity possible. PGS allows armored combat vehicle crews to conduct simulated engagements by firing eye-safe lasers at maneuvering targets. The system accurately replicates the hit point and maximum effective ranges of all potential ammunition.

The simulated direct-fire events produce hit/miss “casualties,” including audio/visual effects from the engagements. Engagement outcomes are relayed to combat vehicle crews in real time and recorded for AARs.



SPECIAL FEATURES

When used for gunnery qualifications, PGS can supplement the use of service ammunition to lower costs. It is a multi-functional tool that can support a master gunnery course for advanced gunnery techniques. It also can be used to validate the training effectiveness of other simulators. PGS is fully compatible with other modern Tactical Engagement Simulation (TES) systems and Combat Training Centers (CTCs). It offers the following advantages over older precision gunnery systems:



- **PRECISION:** Replicates maximum effective ranges of all potential ammunition while producing accurate hit/kill effects. PGS provides highly accurate replication of the ballistic characteristics and lethality of the weapons fired without having to constantly realign the weapon.
- **FIDELITY:** Realistically simulates tactical engagements in any environment. Troops cannot foil engagement outcomes by moving behind bushes or trees. Older two-way systems, on the other hand, must maintain optical line-of-sight between the shooter and target during fly-out. PGS increases realism, reduces opportunities for cheating and avoids reinforcing bad habits.
- **TRAIN AS YOU FIGHT:** Provides realistic “fire-and-forget” and shoot-on-the-move capabilities for realistic training. The “attacker” can engage a second threat at any location immediately after firing, which allows crews to effectively train in a multi-threat environment. No other system has this unrestricted capability.
- **FEEDBACK:** Provides timely feedback during gunnery training – or immediately following training during AARs. Data can also be captured in real time via a RF data link or in a post-mission environment via a “blue tooth” interface to a PC.
- **MODULARITY:** Modular design allows easy adaptation to future weapon platforms. PGS includes common modules, a common system interface and advanced functions. The streamlined design allows for growth capability. It also reduces time to learn how to use PGS as well as associated logistics and documentation.
- **RUGGED, RELIABLE AND SIMPLE:** Features a rugged, reliable design with significantly fewer modules than older systems. PGS improves system reliability and safety while reducing life-cycle costs and installation time.

FIELD-PROVEN EXPERIENCE

PGS incorporates the latest technologies available while retaining Cubic-proven methodologies gained from nearly 30 years of experience fielding live combat training systems. It builds on the successfully deployed Multiple Integrated Laser Engagement System (MILES 2000) currently being used by the U.S. Army, U.S. Marine Corps and international forces.

PGS addresses new requirements of future armored fighting vehicles with the infusion of state-of-the-art technologies to support emerging tactics and techniques for force-on-force and gunnery training.

The system is designed to ensure compatibility with existing and future CTC-IS around the world.