

Improved Target Acquisition System (ITAS)

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

MISSION

To provide long-range sensor and anti-armor/precision assault fire capabilities, enabling the Soldier to shape the battlefield by detecting and engaging targets at long range with tube-launched, optically tracked, wire-guided (TOW) missiles or directing the employment of other weapon systems to destroy those targets.

DESCRIPTION

The ITAS is multipurpose weapon system that is used as a reconnaissance, surveillance, and target acquisition sensor that also provides long range anti-armor/precision assault fires capabilities to the Army's Infantry and Stryker BCTs as well as Marines. ITAS is a major product upgrade that greatly reduces the number of components, minimizing logistics support and equipment requirements. Built-in diagnostics and

improved interfaces enhance target engagement performance. ITAS's second-generation infrared sensors double the range of its predecessor, the M220 TOW system. It offers improved hit probability with aided target tracking, improved missile flight software algorithms, and an elevation brake to minimize launch transients. The ITAS includes an integrated target acquisition subsystem (day/night sight with laser rangefinder), a position attitude determination subsystem, a fire-control subsystem, a lithium-ion battery power source, and a modified traversing unit. Soldiers can also detect and engage long-range targets with TOW missiles or, using the ITAS far-target location (FTL) enhancement, direct other fires to destroy them. The FTL enhancement consists of a position attitude determination subsystem (PADS) that provides the gunner with his own GPS location and a 10-digit grid location to his target through the use of differential global positioning system. With the PAQ-4/PEQ-2 Laser Pointer, ITAS can designate .50 caliber or MK-19 grenade engagements. The ITAS can fire all versions of the TOW family of missiles.

The TOW 2B Aero and the TOW Bunker Buster have an extended maximum range to 4,500 meters. The TOW 2B Aero flies over the target (offset above the gunner's aim point) and uses a laser profilometer and magnetic sensor to detect and fire two downward-directed, explosively formed penetrator warheads into the target. However, the TOW Bunker Buster impacts the target. With its high-explosive blast-fragmentation warhead, the TOW Bunker Buster is optimized for performance against urban structures, earthen bunkers, field fortifications, and light-skinned Armor threats. ITAS operates from the High Mobility Multipurpose Wheeled Vehicle, the dismount tripod platform, and Stryker anti-tank guided missile vehicles (ATGMs).

SYSTEM INTERDEPENDENCIES

The ITAS system is integrated on the M1121/1167 HMMWV and the Stryker ATGM. The ITAS system is the guidance for the TOW missile.

PROGRAM STATUS

- **Current:** ITAS has been fielded to 18 active and six reserve component Infantry Brigade Combat Teams and seven Stryker Brigade Combat Teams.
- **Current:** The Marine Corps has begun fielding the ITAS to infantry and tank battalions to replace all Marine Corps M220A4 TOW 2 systems by 2012.

PROJECTED ACTIVITIES

- **2QFY10–2QFY12:** Fielding of 16 IBCTs and 12 separate battalions; ITAS production concludes; sustainment training for fielded units; pre-deployment training; anticipated continuation of border patrol activities; contractor logistics support

ACQUISITION PHASE

Technology Development

Engineering & Manufacturing Development

Production & Deployment

Operations & Support

Improved Target Acquisition System (ITAS)

FOREIGN MILITARY SALES

NATO Maintenance and Supply Agency,
Canada

CONTRACTORS

Raytheon (McKinney, TX)

Training Devices:

Intercoastal Electronics (Mesa, AZ)

