

Improved Target Acquisition System (ITAS)

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

MISSION

Provides 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 Improved Target Acquisition System (ITAS) is a multipurpose weapon system used as a reconnaissance, surveillance, and target acquisition sensor. ITAS provides long-range anti-armor/precision assault fire capabilities to the Armys Infantry and Stryker Brigade Combat Teams (BCTs) as well as to the Marine Corps. 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 forward-looking infrared sensors double the long-range surveillance 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 day/night sight with eye-safe 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 the targets. The FTL enhancement consists of a position attitude determination subsystem (PADS) that provides the gunner with his own Global Positioning System (GPS) location and a 10-digit grid location to his target through the use of differential GPS. 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 (off-set above the gunners aim point) and uses a laser profilometer and magnetic sensor to detect and fire two downward-directed, explosively formed penetrator warheads into the target. TOW Bunker Buster, with its high-explosive blast-fragmentation warhead, 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 (HMMWV), the dismount tripod platform, and Stryker anti-tank guided missile (ATGM) vehicles.

SYSTEM INTERDEPENDENCIES

In this Publication
None

Other Major Interdependencies

The ITAS system is integrated on the M1121/1167 HMMWV and the Stryker Anti Tank Guided Missile (ATGM). The ITAS system provides the guidance for the TOW missile.

PROGRAM STATUS

- **Current:** ITAS has been fielded to 20 active and 16 reserve component Infantry BCTs and ten Stryker BCTs
- **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

- **Continue:** ITAS total package fielding
- **FY13:** Complete fielding

ACQUISITION PHASE

Technology Development	Engineering & Manufacturing Development	Production & Deployment	Operations & Support
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Improved Target Acquisition System (ITAS)

FOREIGN MILITARY SALES

NATO Maintenance and Supply Agency:

Canada

Direct Commercial Sale (DCS):

Portugal

CONTRACTORS

Raytheon (McKinney, TX)

Training Devices:

Intercoastal Electronics (Mesa, AZ)

