



TOW WEAPON SYSTEM

**TUBE-LAUNCHED, OPTICALLY-TRACKED, WIRELESS-GUIDED
(TOW) FAMILY OF MISSILES**

IMPROVED TARGET ACQUISITION SYSTEM (ITAS)

Close Combat Weapon Systems Project Office

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TOW FAMILY OF MISSILES PRODUCT DESCRIPTION



Mission

The TOW family of missiles provides long-range, precision close combat fires to the Army's Infantry Brigade Combat Teams (IBCT), Armor Brigade Combat Teams (ABCT), Stryker Brigade Combat Teams (SBCT), USMC Battalions, and Allied Forces. TOW provides precise, lethal direct fires against main battle tanks, field fortifications, heavy weapons teams, snipers, and fleeting targets of opportunity while minimizing collateral damage. The TOW family of missiles provides the Joint Warfighter with precision direct fires against all targets found in the range of military operations.

Characteristics/Description

TOW 2B Aero RF:

- Dual Explosively Formed Penetrator (EFP) warheads configured for top attack
- Range: 200M min / 4,500M max
- Weight: 65 lbs

TOW Bunker Buster RF:

- Blast fragmenting HE Bulk warhead
- IM Compliant PBXN-109 explosive
- Range: 65M min / 4,200M max

TOW 2A RF:

- Single main warhead and standoff probe with precursor charge
- Direct attack missile capable of defeating modern threat targets
- Range: 65M min / 3,750M max

Capabilities/Improvements

- TOW 2B Aero RF defeats all current and projected threat armor systems
- Aerodynamic nose reduces missile time of flight to target
- 20% improvement in max range increases survivability by providing more standoff from threat weapons
- Increased Pk/s at extended ranges
- Defeats advanced threat Active Protection Systems (APS)
- TOW BB RF breaches 8" thick double reinforced concrete walls; provides overmatch against urban targets and bunkers.

Special Features

TOW 2B Aero RF:

- Aerodynamic nose
- Advanced Counter Active Protection System (CAPS) for TOW 2B Aero Gen 2

TOW Bunker Buster RF:

- Warhead optimized for urban targets and field fortifications.

TOW 2A RF:

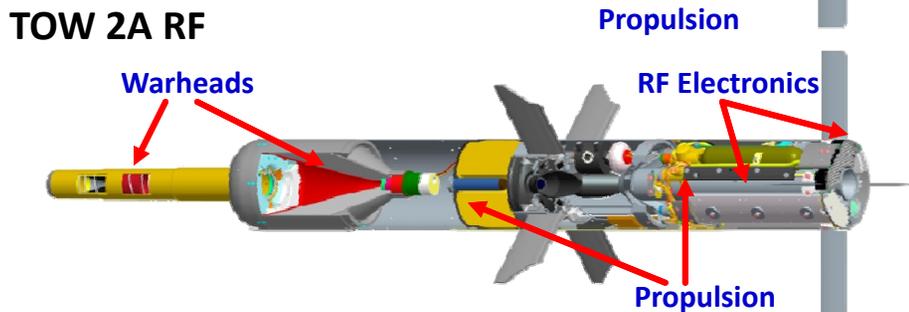
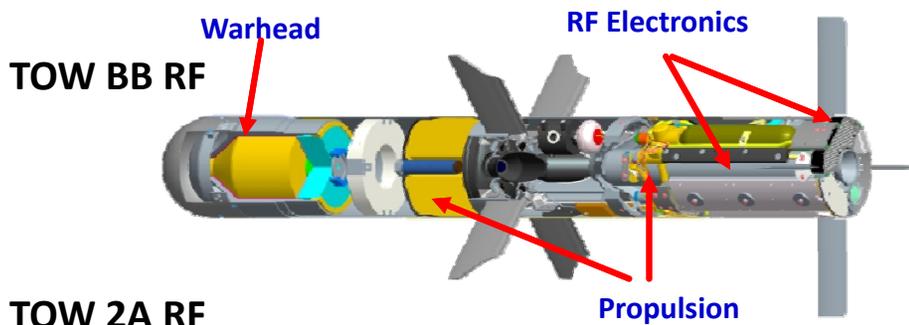
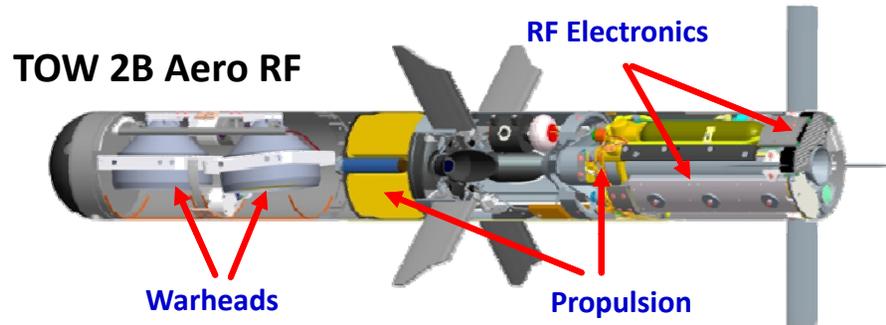
- Optimized for performance against tanks with reactive armor and is also an effective assault weapon against buildings and field fortifications

TOW 2B Aero RF, TOW BB, and TOW 2A RF compatible with all TOW platforms and stowage racks: ITAS, Bradley Fighting Vehicles, Stryker Anti-Tank Guided Missile (ATGM) Vehicle and USMC platforms.





TOW FAMILY OF MISSILES





ITAS PRODUCT DESCRIPTION



Mission

The Improved Target Acquisition System (ITAS) with Far Target Location (FTL) is a combat proven system that provides long-range, lethal anti-armor, and precision assault fires capability for Active Component and Army National Guard Infantry Brigade Combat Teams (IBCT) and Stryker Brigade Combat Teams (SBCT) across the spectrum of contemporary operational environments. ITAS with the TOW missile provides the capability to defeat armored vehicles, bunkers, and buildings at extended ranges in all battlefield conditions.

Characteristics/Description

- Superior Long Range Surveillance (2nd GEN Forward Looking Infrared (FLIR))
- Long Range, Lethal, Heavy Close Combat and Precision Assault Fires
- Far Target Location Capability
- Fires all versions of TOW missiles
- Laser Range Finder (10 km) / Aided Target Tracker
- Image Enhancement and Networked Lethality Capability
- 16 Hour Silent Watch Capability

Capabilities/Improvements

- Doubles target detection / recognition of Ground TOW
- Increased probability of hit
- Assists in the target location for other direct fire, indirect fire, and close air support weapons
- Image Enhancement optimizes the FLIR image presented to the Gunner
- Networked Lethality enables the ITAS to input data to Force XXI Battle Command, Brigade-and-Below (FBCB2)

Special Features

- Commonality with Improved Bradley Acquisition Subsystem (IBAS)
- Used on Stryker Anti-Tank Guided Missile (ATGM) vehicle
- Position Attitude Determination Subsystem (Far Target Location Capability) 10 digit grid
- Image Enhancement
- Networked Lethality Capability





TOW WEAPON SYSTEM PLATFORMS



Armor BCT



**M2A3 Bradley
IBAS**

USMC Infantry Bn



**M1167 HMMWV
M41A4 Saber**



Stryker BCT



**M1134 Stryker ATGM
Modified ITAS**

USMC LAR Bn



**LAV-AT
M901 and MITAS**

Infantry BCT



**M1167 HMMWV
M41A4 ITAS**

Allied Forces



**LAV-AT
M901 and MITAS**

Allied Forces



**Wiesel 1 TOW
M220**



TOW ITAS

EFFECTIVE IN COMBAT OPERATIONS



Over 10,900 Missiles Expended in Combat Operations

- **TOW and ITAS provided overmatch against threat systems and capabilities:**
 - Defeated Main Battle Tanks to individual snipers
 - Day and Night Surveillance of the battlefield
- **Effective against complete target set – Tanks, IFVs, Vehicles, and Structures**



"The FLIR and the TOW ITAS, in particular, was the hero of the battlefield. It enabled us to see the enemy way, way out before he could even believe we could see him. And that night outside the airfield, for example, our TOW gunners could see the enemy and bring in either close air support or artillery before the enemy even realized he was being seen."

MG David H. Petraeus, 101st Abn Div (AASLT)

- **ITAS provides superior surveillance capabilities**
 - Call for and adjust indirect fire
 - Call in of CAS and used in BDA
 - Day and night observation
- **TOW is effective against all targets:**
 - Buildings, Bunkers, and Caves
 - HMG, RPGs, and Mortar positions
 - Command Elements, IED Teams, and Snipers
- **ITAS and TOW enable engagements beyond the range of enemy weapons**



"The TOW-ITAS was the fastest most effective weapon system on the battle field that allowed us to Positively Identify (PID), Engage, and Destroy the enemy, with zero collateral damage and simultaneously collect an accurate Battle Damage Assessment (BDA)." 2nd Bn 503^d IN 173rd IBCT

"In almost all situations, the fight ended after firing the TOW." Plt Ldr, 173rd ABN