

Night Targeting System-Advanced (NTS-A)



NTS-A is Affordable and Production Ready Today!

Anti-Tank Fire Control that Works in All Conditions

The Night Targeting System-Advanced (NTS-A) from Kollsman improves the range acquisition and target tracking capabilities of attack helicopters including the AH-1 family, Agusta A129, and others. Employing state-of-the-art technology, NTS optimizes daytime visibility and enables night and low visibility operations. Highly reliable and stable, NTS offers the flexibility for easy installation and future enhancements. Even in the presence of active countermeasures, your attack helicopter will perform up to your expectations.

The *Kollsman* NTS-A is the most cost effective solution for the Attack Helicopter

- Provides night and reduced visibility capability
- Extends service life to 2020
- Provides TOW/TOW2 and optional HELLFIRE missile capability
- Ensures cost effective supportability with in-place logistics support team

NTS-A is flight proven and ready for production

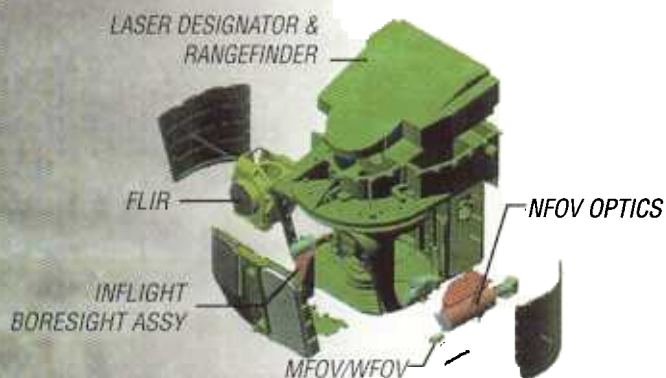


Night Targeting System-Advanced

NTS: Integrated Capabilities in Production for the U.S. Military

At the height of Operation Desert Storm, the long-standing need for an autonomous, night anti-armor capability for the USMC was emphasized. The USMC answer was the acquisition and deployment of the Night Targeting System for the AH-1W Attack Helicopter. With its fully integrated gunner's cockpit capabilities, NTS provides the USMC with a reliable day/night fighting system that incorporates:

- Compatibility with multi-armament, multi-role operation, including TOW and HELLFIRE.
- Stabilized sensor turret.
- Forward Looking Infra-Red (FLIR) sight for night and reduced visibility target engagement.
- Accurate laser ranging data.
- Autonomous and cooperative HELLFIRE missile laser designation.
- Automatic in-flight boresighting enhances targeting accuracy and first round hit probability.
- Automatic Target Tracker functions during conditions of battlefield smoke, dust, and fog, day and night.
- Cockpit controlled VCR that supports battlefield surveillance (under cover) and assessment of weapons delivery.
- Computer-aided automatic target tracking to reduce gunner's workload during engagement



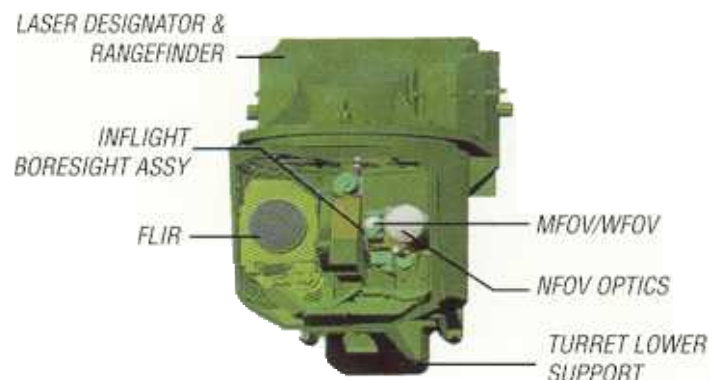
NTS-A: Tailored for the AH-1 Single Engine Cobra

The *Kollsman* NTS-A "Night Fighter™" is a new, enhanced-performance version of the combat-proven NTS. It is applicable to a wide range of different attack helicopters, including the AH-1W Super Cobra and the single engine AH-1S/P/F Cobras. The significant change to the Night Fighter is the removal of the optical relay tube. This change allows heads-up gunner operation, reduces equipment weight, improves performance and increases the safety of the front-seater. Day, night and reduced visibility Night Fighter operations are significantly improved with a new low light level CCD TV camera and a new second generation thermal camera. The CCD TV camera increases daytime targeting range by 40% and extends the mission capability until 30 minutes after sunset. The advanced second generation 240 x 4 interlaced FLIR offered provides a 30% improvement over the very effective first generation FLIR of the current NTS. These high performance day camera and thermal camera images are displayed on a new flat-panel, multi-functional video display installed at both seats. Front and back seat displays improve gunner situational awareness and systems lethality while affording the important potential for reducing fratricide. NTS-A equipment has also incorporated reliability and maintainability improvements resulting in higher mission availability and lower aircraft downtimes.

Support for the NTS-A

Supported through the existing government NTS supply system using an "Organization to Depot" maintenance concept, Night Fighter is a combat-proven, high performance solution for Cobra fire control system upgrades.

- Logistic support available under Foreign Military Sales Program
- Operator training
- Maintenance training
- Available Automatic Test Equipment for depot level maintenance by foreign customers
- Spares provision and Field Service Support



NTS-A Technical Characteristics

FLIR

Detector type	MCT, 240 x 4 TDI or 120 x 1, 8-12 μ m
Fields of view (FOV), (H x V)	
Wide	1.4 X, 24.0° x 18.0°
Medium	6.4 X, 5.2° x 3.9°
Narrow	22.3 X, 1.5° x 1.1°
Electronic Zoom (2 X)	44.6 X, 0.73° x 0.55°

Missile Capabilities

Hellfire, All types of TOW, Others depending on the specific platform

Field of Regard

Azimuth	90° left, 95° right
Elevation	+30° to -60°

TV Camera

Field of view (H x V)	
Wide	3 X, 14.4° x 10.8°
Medium	16.8 X, 2.8° x 2.1°
Narrow	65.4 X, 0.72° x 0.54°

Turret

Slew rate	90° / second
Stabilization	25 μ rad/axis

Power Consumption

Average Power	400 W
Maximum Power	650 W

Weight

192 kg (excluding aircraft installation kit)



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