

# NORTHROP GRUMMAN

## SCOUT Multi-Mode Radar System



Northrop Grumman is developing the SCOUT Radar System for the AH-1Z Cobra helicopter. The system consists of the pod-based SCOUT multi-mode radar, M299 Launcher and Longbow Hellfire Missile.

SCOUT provides the aircraft with an advanced sensor system, which substantially improves situational awareness and increases survivability and lethality. With SCOUT, aircrews can rapidly engage targets in high-density threat environments and in adverse weather conditions...on land, in the air or at sea.

SCOUT is a single-pod structure that can be easily mounted on either wingtip of the

AH-1Z or in the stores position on earlier Cobra models. With the pod mounting, the entire radar system is housed in one location on the aircraft, requiring less sensor integration and preserving space inside the aircraft for future growth. The pod approach significantly reduces cost and simplifies maintenance.

The SCOUT Radar System is fully integrated with the AH-1Z aircraft. The radar is capable of cueing aircraft weapon systems and providing data and target information, which can be communicated to aircraft, command centers and other operational platforms.

**Search • Cue • Observe • Understand • Target**

## SCOUT

### Multi-Mode Radar System

#### SCOUT Radar

The system features four operational modes to quickly and automatically search, locate, detect, classify and prioritize both moving and stationary targets: Ground, Littoral, Air and Navigational Aid. In the Ground mode, the system is directed toward ground targets and low-flying helicopters and aircraft. The Littoral mode detects ships and fast-moving sea threats. The Air mode points its beam higher and suppresses ground targets, providing a simplified air-only situational analysis. The Navigational Aid mode locates obstacles that can be placed on the aircraft's digital map.

Target locations can be transferred to various onboard sensors, other Cobra aircraft, command

and control centers and to the Longbow Hellfire missile for rapid engagement.

SCOUT can be easily maintained and features advanced built-in-test that isolates to the circuit card or module level.

#### Longbow Hellfire Missile and M299 Launcher

The AGM-114L Longbow Hellfire fire-and-forget missile uses a millimeter wave seeker to locate and engage targets in adverse weather and battlefield obscurants up to 8 km. The missile offers lock-on-before-launch and lock-on-after-launch modes and is effective against countermeasures. The M299 launcher is fully digital and can fire any type of Hellfire missile.



### Specifications

#### SCOUT Radar

Frequency	MMW
Range	Moving 8 km, Stationary 5 km
Weight	136 kg (<300 lb)
Operating Modes	Ground, Littoral, Air and Navigational Aid modes
Features	Automatic detection, location, classification and prioritization of more than 100 tactical targets; capable of cueing various aircraft weapon systems; data/target hand-off to aircraft, command centers and other operational platforms
Operating Conditions	Clear day or night, smoke, fog, dust, rain, snow and countermeasures

#### Longbow Hellfire Missile

Frequency	MMW
Range	8 km
Operating Conditions	Clear day or night, smoke, fog, dust and snow
Weight	49 kg (108 lb)
Length	175 cm (69 in.)
Diameter	17.8 cm (7 in.)
Features	True fire-and-forget, adverse weather capability, lethal warhead performance, robust countermeasures, commonality with Hellfire missile family

For more information, please contact:

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