

# Sentinel

## INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

### MISSION

To provide critical air surveillance by automatically detecting, tracking, classifying, identifying, and reporting targets to air defense weapons systems and battlefield commanders.

### DESCRIPTION

Sentinel is used with the Army's Forward Area Air Defense Command and Control (FAAD C2) system and provides key target data to Stinger-based weapon systems and battlefield commanders via FAAD C2 or directly, using an Enhanced Position Location Reporting System (EPLRS) or the Single Channel Ground and Airborne Radio System (SINCGARS).

Sentinel consists of the M1097A1 High Mobility Multipurpose Wheeled Vehicle (HMMWV), the antenna transceiver group mounted on a high-mobility trailer, the identification friend-or-

foe system (IFF), and the FAAD C2 interface. The sensor is an advanced three-dimensional battlefield X-band air defense phased-array radar with a 40-kilometer range.

Sentinel can operate day and night, in adverse weather conditions, and in battlefield environments of dust, smoke, aerosols, and enemy countermeasures. It provides 360-degree azimuth coverage for acquisition and tracking of targets (cruise missiles, unmanned aerial vehicles, rotary and fixed wing aircraft) moving at supersonic to hovering speeds and at positions from the map of the earth to the maximum engagement altitude of short-range air defense weapons. Sentinel detects targets before they can engage, thus improving air defense weapon reaction time and allowing engagement at optimum ranges. Sentinel's integrated IFF system reduces the potential for engagement of friendly aircraft.

Sentinel modernization efforts include enhanced target range and classification upgrades to engage non-line-of-sight (NLOS) targets;

increased detection and acquisition range of targets; enhanced situational awareness; and classification of cruise missiles. The system provides integrated air tracks with classification and recognition of platforms that give an integrated air and cruise missile defense solution for the Air and Missile Defense System of Systems Increment 1 architecture and subsequent increments. Sentinel provides critical air surveillance of the National Capital Region and other areas as part of ongoing homeland defense efforts, and is a component of the counter rocket, artillery, and mortar (C-RAM) batteries in the area of responsibility.

### SYSTEM INTERDEPENDENCIES

Forward Area Air Defense (FAAD) Command and Control (C2), Surface Launched Advanced Medium Range Air to Air Missile (SLAMRAAM)

### PROGRAM STATUS

- **4QFY09:** First production of 78 Improved Sentinels completed and delivered

### PROJECTED ACTIVITIES

- **2QFY09:** Contract award for 14 Improved Sentinels

## ACQUISITION PHASE

Technology Development

Engineering & Manufacturing Development

Production & Deployment

Operations & Support

## Sentinel

### FOREIGN MILITARY SALES

Egypt, Turkish Air Force, Turkish Land Forces, Lithuania

### CONTRACTORS

Thales Raytheon Systems (Fullerton, CA; El Paso, TX; Forest, MS; Largo, FL)  
CAS, Inc. (Huntsville, AL)

