

Sentinel

INVESTMENT COMPONENT

Modernization

Recapitalization

Maintenance

MISSION

Provides persistent surveillance and fire control quality data through external command and control platforms, enabling protection against cruise missiles, aircraft, unmanned aerial vehicles, and rocket, artillery, and mortar threats.

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 through FAAD C2 or directly, using an Enhanced Position Location Reporting System or the Single Channel Ground and Airborne Radio System.

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 75-kilometer instrumented 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 nap 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 increased detection and acquisition range of targets and enhanced situational awareness. 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 batteries in the area of responsibility.

SYSTEM INTERDEPENDENCIES

In this Publication

None

Other Major Interdependencies

Integration efforts with the Army Integrated Air and Missile Defense (AIAMD) architecture

PROGRAM STATUS

- **FY11-FY12:** Procurement of 31 Improved Sentinel A1 Kits

- **2QFY12:** Signed Indefinite Delivery/Indefinite Quantity Contract with CECOM for AN/TPX-57 IFFs
- **4QFY12:** Prototype Family of Medium Tactical Vehicles (FMTV) Sentinel A3 variant
- **4QFY12:** Delivery of Finland and Netherlands F1 Software
- **4QFY12:** Procure A1 to A3 conversion kits for current Sentinel fleet

PROJECTED ACTIVITIES

- **FY13:** Procurement Production/Delivery of 48 FMTV Sentinel A3 systems and 8 A3 Repair Cycle Floats
- **FY13-FY14:** Fielding/installation of Improved Sentinel A1 Kits

ACQUISITION PHASE

Technology Development

Engineering & Manufacturing Development

Production & Deployment

Operations & Support

Sentinel

FOREIGN MILITARY SALES

Egypt, Lithuania, Turkey

CONTRACTORS

Thales Raytheon Systems (Fullerton, CA;
El Paso, TX; Forest, MS; Largo, FL)
Various SETA Contractors (Huntsville, AL)

