



Sentinel

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Sentinel Mission



Mission:

Provide persistent surveillance and fire control quality data on Army and Joint networks through external Command and Control (C2) platforms enabling protection of US and coalition forces as well as critical geo-political assets against Cruise Missiles (CM), Aircraft, and Unmanned Aerial Vehicles (UAVs).





Sentinel System Overview



Description:

The Improved Sentinel consists of a trailer-mounted, radar-based, Antenna Transceiver Group (ATG) and a High Mobility Multipurpose Wheeled Vehicle (HMMWV) prime mover/power. The ATG houses an advanced three dimensional battlefield X-band air defense phased-array radar with an instrumented range of 75 km. Improved Sentinel is the prime contributor of air picture data for the Army Divisional and Corps Forward Area Air Defense (FAAD) weapons. The Improved Sentinel constructs digitized battlefield information for Reconnaissance, Surveillance, and Target Acquisition and provides force protection from hostile air attacks and fratricide.

Key Capabilities:

- 3 Dimensional X-band Phased Array Radar
- All Weather; Day/Night; 360° Coverage;
- Integrated Into IAMD Common Architecture; Homeland Defense; Counter Rocket Artillery and Mortars (C-RAM) System
- Alerts/Cues Friendly Forces of Enemy Air Attack
- Automatically Detects/Tracks Cruise Missiles, UAVs, RW/FW Aircraft
- AN/TPX-56 IFF (Future TPX-57 Mode 5)
- Mobility



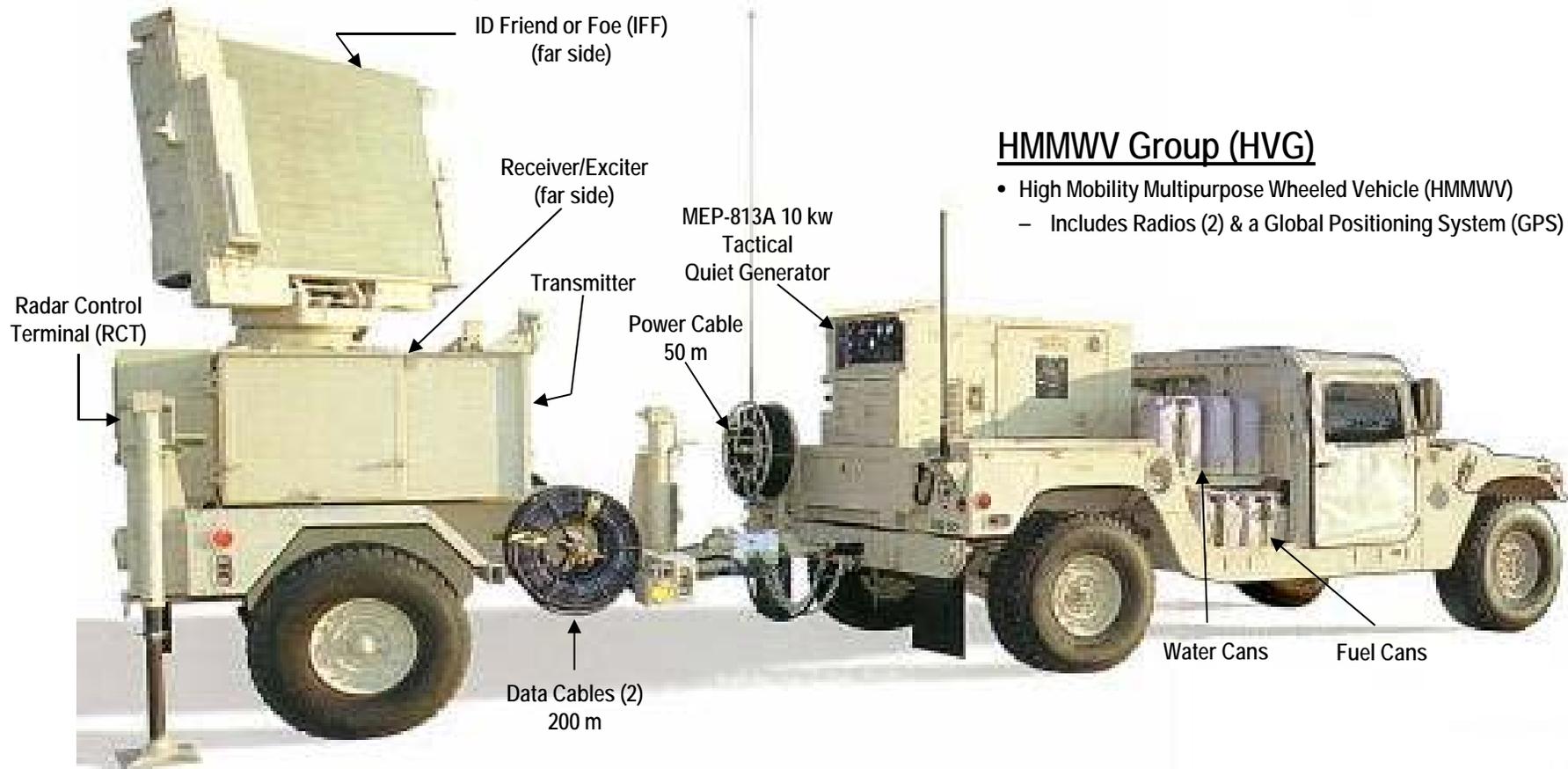


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Improved Sentinel A1 Configuration



Antenna-Transceiver Group (ATG)



The remainder of the fleet will transition to the A3 configuration with FMTV platform

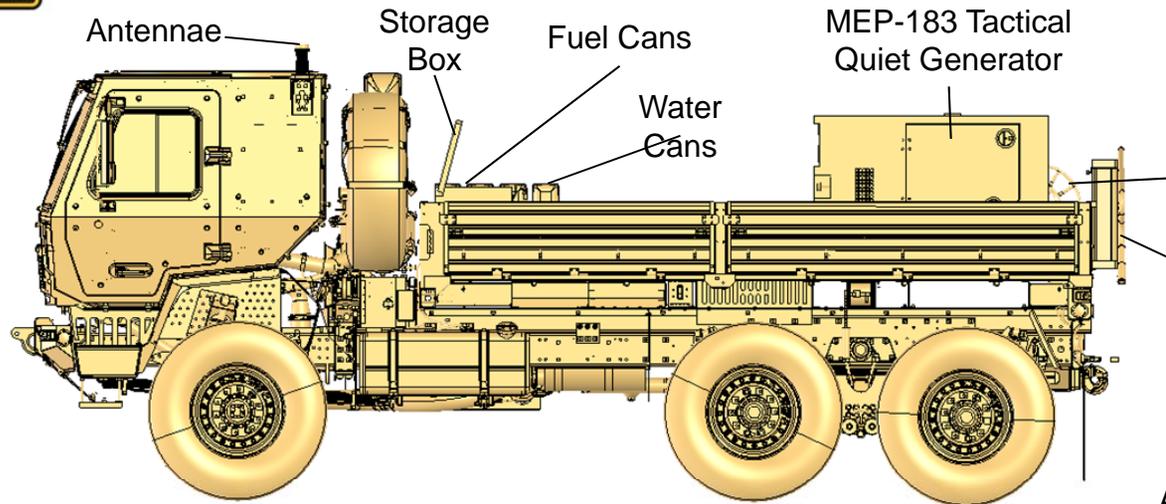




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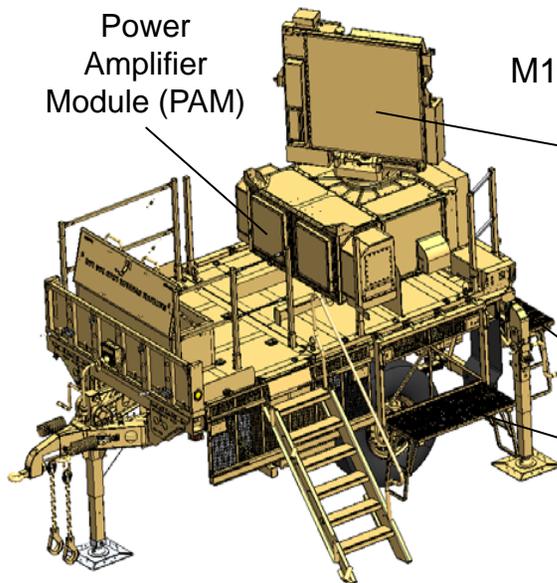


Improved Sentinel A3/FMTV Configuration

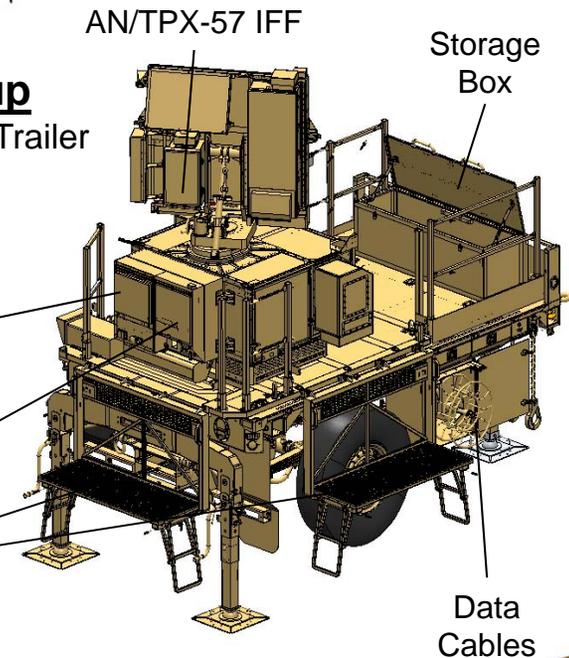


FMTV Group M1083 Family of Medium Tactical Vehicles Truck

Power Cable
Access
Ladder
(stowed)



Antenna Transceiver Group M1082 Light Medium Tactical Vehicle Trailer



Power
Amplifier
Module (PAM)

Radar
Antenna
Signal Data
Processor
Radar Control Terminal
(eRCT)
Work
Platforms

AN/TPX-57 IFF

Storage
Box

Data
Cables





Sentinel Summary



- Sentinel is a currently fielded, combat tested battlefield radar that is deployed in support of:
 - Active Army and National Guard Air Defense Units
 - Counter Rocket, Artillery and Mortar (C-RAM) System
 - Army Integrated Air and Missile Defense System
 - Homeland Defense
- The Sentinel radar has been in the Army inventory since 1997 and has continued to develop new capabilities to counter emerging threats keeping system relevant for the foreseeable future

