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Fact Sheet

Army Navy / Transportable Radar Surveillance (AN/TPY-2)

The Army Navy/Transportable Radar Surveillance and Control Model 2, or AN/TPY-2, is a transportable X-band, high-resolution, phased-array radar designed specifically for ballistic missile defense. The AN/TPY-2 is capable of tracking all classes of ballistic missiles and identifying small objects at long distances. In the forward-based mode, this radar plays a vital role in the Ballistic Missile Defense System (BMDS) by acting as a forward based sensor for the system, detecting ballistic missiles early in their flight and providing precise tracking information for use by the system. Use of multiple sensors provides overlapping sensor coverage, expands the BMDS battle space, and complicates an enemy's ability to penetrate the defense system. In the terminal mode, the same radar provides surveillance, track, discrimination and fire control support for the Terminal High Altitude Area Defense (THAAD) weapon system.

Overview

- High-resolution, X-band, phased-array radar
- Acquires, tracks, discriminates, classifies, identifies, and estimates the trajectory parameters of all classes of threat missiles and missile components, and passes this information to other BMDS components or the THAAD weapon system
- Can support additional missions, including space surveillance and data collection
- Transportable by air, ship, rail, and truck

Details

- AN/TPY-2 radars, coupled with layered sensors, give the BMDS a continuous tracking and discrimination capability with more opportunities to engage the target, resulting in a greater probability for a successful intercept.
- The radars pass target data to the BMDS and THAAD command and control systems.
- The radars perform autonomously or as cued by other sensors.

Development

- Five AN/TPY-2 radars operating in the forward-based mode are currently deployed in support of U.S. allies.
- One AN/TPY-2 radar operating in terminal mode as part of a THAAD weapon system in support of homeland defense.
- Twelve AN/TPY-2 radars have been produced, with no additional radars currently planned for production.
- United Arab Emirates purchased two terminal mode radars for THAAD batteries through Foreign Military Sales.