

Forward-Based X-Band Radar-Transportable (FBX-T)



The Forward-Based X-Band Radar-Transportable (FBX-T) is a phased-array radar that provides early detection, tracking and discrimination of ballistic missile threats.

Benefits

- Key element in the defense of the United States, deployed forces and allies
- Acquires targets in boost phase
- Tracks complex threats from early in the trajectory
- Reports radar data to Command and Control and Battle Management Communications (C2BMC) via the C2BMC Network Interface Processor (CNIP)
- Enables target selection in the C2BMC

Next-Generation Radar

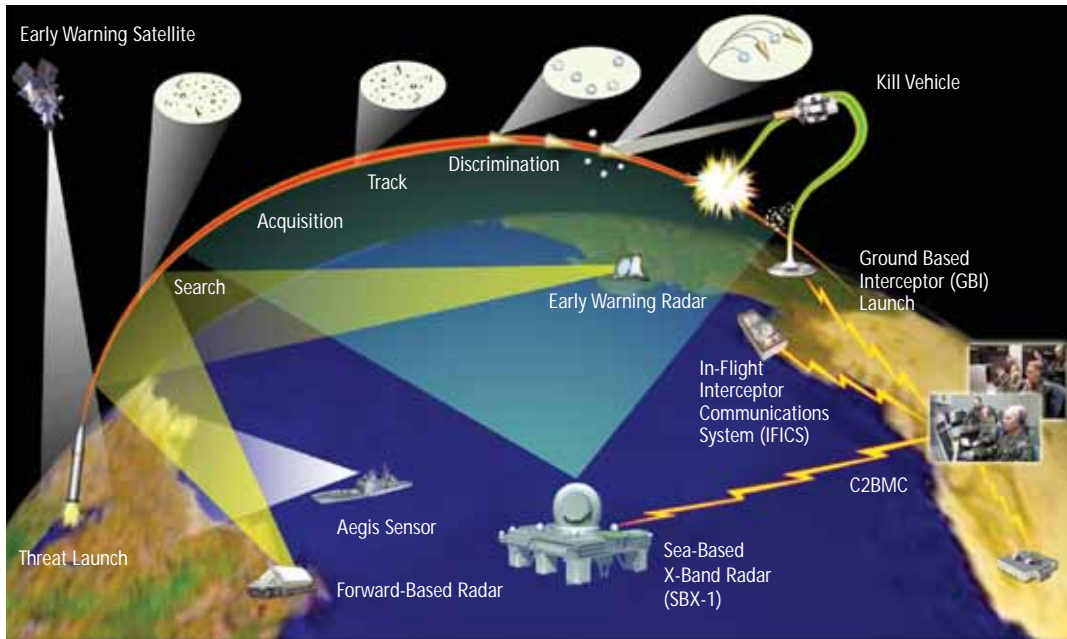
The Forward-Based X-Band Radar-Transportable (FBX-T) program is a key part of Raytheon's Missile Defense Business Area. One of Raytheon's X-Band "Family of Radars," the FBX-T capability is being developed in spirals. The FBX-T is designed to expand the radar's role within the Ballistic Missile Defense System (BMDS) and provide a key element of the layered defense strategy.

Advanced Communication Capabilities

The Capability Release 1 (CR-1) software package enables the radar to provide sophisticated messaging and communication with the BMDS battle manager (C2BMC). This provides surveillance and search capabilities early in the target trajectory, and enables the early engagement of the threat.

The Capability Release 2 (CR-2) software package, which will be available in 2007, provides the FBX-T with additional search, track and processing algorithms.

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Notional Engagement

Immediate Threat Acquisition

The FBX-T radar is designed to first detect a ballistic missile as close to the country of origin as possible. This maximizes the capability of the BMDs to identify, assess and engage ballistic missile threats to the U.S., deployed forces and allies. As soon as the FBX-T detects a threat, it begins generating sophisticated tracking data about that object and its flight. That information is then reported to the Command and Control Battle Management Communications (C2BMC) element. Once the tracking data provided by the FBX-T and other sensors is received by the engaging fire control system — and the object is deemed hostile — the target will be intercepted and destroyed by a Ground-Based Interceptor (GBI) or Standard Missile-3.

Flawless Test Performances

The FBX-T performed flawlessly in all target-of-opportunity test missions conducted during the second half of 2005. In each of the tests, a Minuteman inter-continental ballistic missile was fired out of Vandenberg Air Force Base (VAFB) in California. The FBX-T tracked the missile in its boost and midcourse phases, generated flight data, and then successfully communicated that information. In one important test, the FBX-T at VAFB successfully provided handover data to allow cued acquisition of the threat complex by the TPS-X radar located in Hawaii.



The FBX-T radar is designed to acquire and track targets early in the trajectory.



The FBX-T radar employs common hardware.

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