



PATRIOT Advanced Capability-3

The most mature hit-to-kill weapon system of the Ballistic Missile Defense System (BMDS), the Patriot Weapon System using Patriot Advanced Capability (PAC)-3 missiles, is now operational and fielded by the U.S. Army.

Overview

- A land-based element built upon the proven Patriot air and missile defense infrastructure.
- PAC-3 was deployed to the Middle East as part of Operation Iraqi Freedom where it intercepted ballistic missiles with a combination of GEM and PAC-3 missiles. The GEM missile uses a blast fragmentation warhead while the PAC-3 missile employs hit-to-kill technology to kill ballistic missiles.
- The Army is responsible for production and further development of the PAC-3 and the Medium Extended Air Defense System; the Missile Defense Agency remains responsible for the BMDS and PAC-3 interoperability and integration efforts.



Contributions to the Ballistic Missile Defense System

- Provides simultaneous air and missile defense capabilities as the Lower Tier element in defense of U.S. deployed forces and allies.
- Works with THAAD to provide an integrated, overlapping defense against missile threats in the terminal phase of flight. Jointly, these systems engage the threat by forming a multi-tier theater defense against adversary missile threats using peer-to-peer engagement coordination, early warning track data, and battle management situational awareness.
- Contributes to the entire system's situational awareness by transmitting precision cueing data to other theater elements while simultaneously protecting system assets against short-range ballistic missiles, large-caliber rockets, and air-breathing threats.
- For homeland defense, Patriot provides detection, track, and engagement of short-range ballistic missiles and cruise missiles. These engagements are further enhanced by networked remote sensors that supply early warning data to increase the probability of success.
- Patriot has added Upper-Tier Debris Mitigation capability to mitigate the excessive radar load and potential missile waste caused by debris from upper-tier intercepts.