



## Theater High Altitude Area Defense (THAAD)

The U. S. is becoming increasingly concerned about the proliferation of ballistic missiles and the technology necessary to build these missiles being available to many nations of concern and terrorist organizations. The Missile Defense Agency (MDA) has been given the mission to design a rapidly mobile missile defense system that will enable the U.S. to protect the homeland, U.S. forces abroad and Allies. The Theater High Altitude Area Defense (THAAD) is an element that will destroy a ballistic missile as it transitions from the mid-course to terminal phase of its trajectory in MDA's layered Ballistic Missile Defense System (BMDS). THAAD is a land-based element that has the capability to shoot down a short or medium range ballistic missile in its final stages of flight, both inside and just outside of the atmosphere. This unique ability makes it extremely difficult for enemy launched decoys (called countermeasures) to misguide the interceptor, and also provides effective defense against weapons of mass destruction. In addition, THAAD has rapid mobility so that it can be air-lifted to almost anywhere in the world within hours. With the exception of certain radar components, all system components are transportable by C-130 aircraft. THAAD's growth potential will ensure protection of a defended area against a broad range of future threats. As part of the layered missile defense system, THAAD will provide near leak-proof protection when integrated within the BMDS.



THAAD consists of four principal components: truck-mounted launchers; interceptors; radars; and command, control and battle management (C2BM). The mobile launcher protects, transports, and ultimately fires the interceptors. The launcher is designed to rapidly reload interceptors and, like many of the other elements in the BMDS, the interceptor uses the "hit-to-kill" technology (one missile hitting and destroying the incoming missile). The THAAD radar supports the full-range of surveillance, tracks the target and communicates with the interceptor in-flight. Finally, THAAD's C2BM component manages and integrates all THAAD components by providing instructions and communications and by processing data. The C2BM component will also link the THAAD system to other BMDS elements, strengthening the layered missile defense system concept.

The THAAD program is well along its development timetable. THAAD system development started in 1992 with an award of the Program Definition and Risk Reduction (PDRR) contract. Eleven THAAD flight tests were conducted in the PDRR Phase. The first successful missile-to-missile intercept of a ballistic missile target was achieved on June 10, 1999 during Flight Test 10. Currently in the development phase, THAAD is implementing a block development strategy designed to get the THAAD system into the hands of our soldiers as quickly as possible using the latest technology in the most affordable manner. Each two-year block (Block 2004, 2006 and 2008) builds on and integrates with the capabilities of the predecessor block. The program continues to refine and mature the system design to ensure that the element performs to an acceptable standard and can be produced efficiently and maintained. This will be accomplished by continuing current component design and development activities, robust ground tests and quality assurance programs. Flight-testing will resume in late 2004 at White Sands Missile Range, transitioning to the Pacific Missile Range Facility in Hawaii in 2006 to test against representative threat systems.