MISSILE DEFENSE AGENCY



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Aegis Ballistic Missile Defense

Aegis Ballistic Missile Defense (BMD) is the naval component of the Missile Defense Agency's Ballistic Missile Defense System (BMDS). Aegis BMD builds upon the Aegis Weapon System (AWS), Standard Missile (SM), Navy and Joint Forces' Command, Control and Communication systems. In 2008, the Commander, Operational Test and Evaluation Force, formally found the Aegis BMD 3.6 weapon system and Standard Missile-3 (SM-3) to be operationally effective and suitable. The Navy embraces BMD as a core mission. In recognition of its scalability, Aegis BMD system is a keystone in the European Phased Adaptive Approach (EPAA).



Regional Defense – Aegis BMD Engagement Capability

 Defeats short- to intermediate-range, midcourse-phase, ballistic missile threats above the atmosphere with the SM-3, as well as short-range ballistic missiles inside the atmosphere with the SM-2 Block IV and SM-6 Dual I/II.

In addition to the ship-based system, Aegis Ashore adapts AWS capabilities to land locations.

 Flight tests are conducted by Fleet warships or the Aegis Ashore Missile Defense Test Complex at the Pacific Missile Range Facility (PMRF). Each test increases the operational realism and complexity of targets and scenarios and is witnessed by Navy and Department of Defense testing evaluators.

Homeland Defense – Aegis BMD Long Range Surveillance and Track

 Aegis BMD ships on Ballistic Missile Defense patrol, detect and track ballistic missiles of all ranges—including intercontinental ballistic missiles—and report track data to the missile defense system. This capability shares tracking data to cue other missile defense sensors and provides fire control data to the Ground-based Midcourse Defense System and other Navy BMD ships.

Deployment

- Aegis BMD's first operational deployment was conducted in late September 2004.
- As of March 2016, there are 33 Aegis BMD combatants (5 cruisers [CGs] and 28 destroyers [DDGs]) in the U.S. Navy. Of the 33 ships, 17 are assigned to the Pacific Fleet and 16 to the Atlantic Fleet. In response to the increasing demand for Aegis BMD capability from the Combatant Commanders, the MDA and Navy are working together to increase the number of Aegis BMD capable ships. Such efforts include upgrading Aegis DDGs to the BMD capability, incorporating Aegis BMD into the Aegis DDG Modernization Program and new construction of Aegis DDGs.
- The first deployment of EPAA Phase I capabilities came on March 7, 2011, when the Aegis BMD cruiser, USS MONTEREY (CG-61), armed with SM-3 Block IA missiles, deployed to Europe.
- The deployment of EPAA Phase II capabilities began in February 2014 with the delivery of Aegis BMD ships that can fire SM-3 Block IB missiles and Romanian installation of Aegis Ashore in 2015.
- SM-3 Block IB missiles were operationally deployed by the Fleet in 2013.

International Efforts

- Aegis BMD is the first missile defense capability produced by the MDA that has been purchased by a military ally. Japan's four KONGO Class Destroyers have been upgraded with BMD capabilities.
- In Fall of 2015, the Maritime Theater Missile Defense (MTMD) forum's At Sea Demonstration (ASD)-15 campaign tested Integrated Air and Missile Defense (IAMD) interoperability with 7 NATO countries and included an intercept of a ballistic missile target with an SM-3 Block IA during exercise 15-2.
- SM-3 Cooperative Development Program is the joint U.S.-Japan development of a 21-inch diameter variant of the SM-3 missile, designated SM-3 Block IIA, to defeat longer range ballistic missiles. Deployment begins in 2018.

Future Capabilities

- Engagement of longer range ballistic missiles.
- Improving existing early intercept capability.
- Enhanced terminal capability against short and medium range ballistic missiles.
- Increased engagement capability in a raid scenario.

• More maritime ally involvement.