



Fact Sheet

Sea-Based Weapon Systems

Sea-Based Weapon Systems (also known as Aegis Ballistic Missile Defense) is the integrated naval component within the Missile Defense Agency's layered Missile Defense System (MDS). Building upon a Navy Aegis Weapon System foundation and Navy operators to develop, procure and sustain missile defense systems for regional and strategic homeland defense. Seamlessly integrated into the Navy's deployed forces and the Nation's larger missile defense system these advanced Aegis weapon system and Standard Missile (SM) capabilities support defense against advanced ballistic and hypersonic missile threats either as a single Aegis Ballistic Missile Defense (BMD) platform, referred to as organic, or in conjunction with other MDS components as a sensor, a "shooter" or both.



Overview

- Provides layered air and missile defense using advanced Aegis weapon systems to detect, track, and engage missile threats with variants of the SM-3 for exo-atmospheric and SM-6 missiles for endo-atmospheric threat engagements. As of September 2020, the system is integrated on 5 U.S. Navy Ticonderoga-class Guided Missile Cruisers, 36 Arleigh Burke-class Guided Missile Destroyers (DDG) and 1 land-based system, known as Aegis Ashore.
- Partners with the U.S. Navy and is increasing the number of Aegis BMD capable ships and interceptors with vastly improved missile detection, tracking and engagement capabilities. Efforts include upgrading existing Aegis DDGs with BMD capability, incorporating advanced Aegis BMD into the Navy Aegis DDG Modernization Program, and ensuring all new DDG construction have advanced BMD capability.
- Evolve and field advancements to Aegis BMD capable of higher fidelity tracking, improved lethality, and more advanced data exchange between other engagement and sensor elements of the MDS to pace the rapidly evolving threat.



Regional Defense – Engagement Capability

- Defeats short to intermediate range, unitary and separating, midcourse-phase, ballistic missile threats with SM-3 missile variants, as well as missile threats in the terminal phase with the SM-6 missile (i.e., Sea-Based Terminal Defense); both missiles are launched and controlled by the Aegis weapon system. Provides data into the MDS in support of other elements, and receives data from to conduct launch and engage on remote capability to greatly increase defense footprint.

Homeland Defense – Long Range Surveillance and Track

- The Aegis BMD fleet, while deployed, detects and tracks ballistic missiles of all ranges to include Intercontinental Ballistic Missiles (ICBM) and reports track data to the MDS. 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 BMD ships. Efforts are underway in 2020 to demonstrate Aegis capability to intercept ICBMs to complement existing strategic ground based capability to provide a strategic Homeland layered defense.

European Phased Adaptive Approach (EPAA)

- Primarily a ship based BMD capability, the Aegis BMD capabilities been modified for land-based applications. This capability referred to as Aegis Ashore forms the backbone of the EPAA to protect forward deployed US forces and allies in Europe against short- to intermediate-range ballistic missiles. Carried out in Phases, the EPAA has been providing increasing level of protection to Europe since 2011, and will complete in the 2022 timeframe with completion of the second operational Aegis Ashore site in Poland – the first Aegis Ashore site located in Romania has been operational since 2015.

Future Capabilities

- Engagement of longer-range and more complex ballistic missile threats
- Improving existing early intercept capability
- Enhanced sea-based terminal defense capability against short, medium-range ballistic missiles and hypersonic missile threats
- Onboard ship missile reprogramming and surveillance
- Increase lethality against ICBM threats for enhanced Layered Homeland Defense
- Engagement of hypersonic missiles threats during glide phase
- Partner with Allies to improve and deploy Aegis weapon system capabilities