Destroyers (DDG 51)

Last updated: 25 May 2021

The Arleigh Burke class (DDG 51) destroyers replaced the Charles F. Adams class (DDG 2). The Arleigh Burke class was designed with an all-new hull form, incorporating much of the Spruance class (DD 963) destroyer propulsion and machinery plant, and the integrated Aegis Weapons System (AWS) proven on the Kidd class (DD 993) destroyers and installed on the larger Ticonderoga class cruisers.

Description

The DDG 51 class guided missile destroyers are warships that provide multimission offensive and defensive capabilities. Destroyers can operate independently or as part of Carrier Strike Groups, Surface Action Groups, and Expeditionary Strike Groups.

Features

Guided-missile destroyers are multi-mission surface combatants capable of conducting Anti-Air Warfare (AAW), Anti-Submarine Warfare (ASW), and Anti-Surface Warfare (ASuW). The destroyer's armament has greatly expanded the role of the ship in strike warfare utilizing the MK-41 Vertical Launching System (VLS), and beginning with ships equipped with Aegis Baseline 9, Ballistic Missile Defense (BMD).

Background

The Arleigh Burke class (DDG 51) destroyers replaced the Charles F. Adams class (DDG 2). The Arleigh Burke class was designed with an all-new hull form, incorporating much of the Spruance class (DD 963) destroyer propulsion and machinery plant, and the integrated Aegis Weapons System (AWS) proven on the Kidd class (DD 993) destroyers and installed on the larger Ticonderoga class cruisers. AWS is composed of a multifunction phased array radar, advanced AAW and ASW systems, VLS, and the Tomahawk Weapon System.

DDG 51 was commissioned on July 4, 1991, and the class is still in production. The class has been continuously upgraded with advanced sensors and weapons and improved support systems.

The Arleigh Burke class employs all-steel construction and comprises four separate variants or "Flights." DDGs 51-71 represent the original design and are designated as Flight I; DDGs 72-78 are Flight II ships; and DDGs 79-124 and DDG 127 are Flight IIA ships. The Flight III baseline will begin with DDGs 125-126 and continue with DDG 128 and follow.

The DDG 51 Flight III upgrade is centered on the AN/SPY-6(V)1 Air and Missile Defense Radar (AMDR) system that provides vastly increased capability over DDG 51 Flight IIA ships. The AMDR enables Flight III ships to simultaneously perform AAW and BMD, which satisfies the Navy's critical need for an enhanced surface combatant Integrated Air and Missile Defense (IAMD) capability.

The first Flight III ship, DDG 125, started fabrication May 07, 2018 and the keel was ceremonially laid down at Huntington Ingalls Industries, Ingalls Shipbuilding November 07, 2019. The second Flight III ship, DDG 126, started fabrication March 03, 2020 at General Dynamics – Bath Iron Works. There are now five Flight III ships under construction with nine more under contract.

Sixty-nine DDG 51 class ships have been delivered to the fleet (DDGs 51 - 119), with 20 more on contract and 11 ships in various stages of construction.

A DDG modernization program is underway to provide a comprehensive mid-life upgrade that will ensure the DDG 51 class will maintain mission relevance and remain an integral part of the Navy's Sea Power 21 Plan. The modernization changes are also being introduced to new construction ships to increase the baseline capabilities of the newest ships in the class, and to provide commonality between new construction ships and modernized in-service ships. The goal of the DDG modernization effort is to reduce workload requirements and increase war fighting capabilities while reducing total ownership cost to the Navy.

General Characteristics, Arleigh Burke class

Builder: Bath Iron Works, Huntington Ingalls Industries

Combat System Integrator: Lockheed-Martin

Date Deployed: July 4, 1991 USS Arleigh Burke (DDG 51)

Propulsion: Four General Electric LM 2500-30 gas turbines; two shafts, 100,000 total shaft

horsepower

Length: Flights I and II (DDG 51-78): 505 feet (153.92 meters); Flight IIA and III (DDG 79

AF): 509 1/2 feet (155.29 meters)

Beam: 59 feet (18 meters)

Displacement: 8,230 - 9,700 Ltons

Speed: In excess of 30 knots

Crew: 329 Total (32 Officer, 27 CPO, 270 Enlisted)

Armament: Standard Missile (SM-2MR); Vertical Launch ASROC (VLA) missiles;

Tomahawk; six MK-46 torpedoes (from two triple tube mounts); Close In Weapon System

(CIWS), 5-in. MK 45 Gun, Evolved Sea Sparrow Missile (ESSM)

Aircraft: (Flight IIA and III (DDG 79 AF)) Two LAMPS MK III MH-60 B/R helicopters with

Penguin/Hellfire missiles and MK 46/MK 50 torpedoes

Ships:

USS Arleigh Burke (DDG 51), Norfolk, VA

USS Barry (DDG 52), Norfolk, VA

USS John Paul Jones (DDG 53), San Diego, CA

USS Curtis Wilbur (DDG 54), Yokosuka, Japan

USS Stout (DDG 55), Norfolk, VA

USS John S McCain (DDG 56), Yokosuka, Japan

USS Mitscher (DDG 57), Norfolk, VA

USS Laboon (DDG 58), Norfolk, VA

USS Russell (DDG 59), Pearl Harbor, HI

USS Paul Hamilton (DDG 60), Pearl Harbor, HI

USS Ramage (DDG 61), Norfolk, VA

USS Fitzgerald (DDG 62), Pascagoula, MS

USS Stethem (DDG 63), San Diego, CA

USS Carney (DDG 64), Mayport, FL

USS Benfold (DDG 65), San Diego, CA

USS Gonzalez (DDG 66), Norfolk, VA

USS Cole (DDG 67), Norfolk, VA

USS The Sullivans (DDG 68), Mayport, FL

USS Milius (DDG 69), San Diego, CA

USS Hopper (DDG 70), Pearl Harbor, HI

USS Ross (DDG 71), Norfolk, VA

USS Mahan (DDG 72), Norfolk, VA

USS Decatur (DDG 73), San Diego, CA

USS McFaul (DDG 74), Norfolk, VA

USS Donald Cook (DDG 75), Norfolk, VA

USS Higgins (DDG 76), San Diego, CA

USS O'Kane (DDG 77), Pearl Harbor, HI

USS Porter (DDG 78), Norfolk, VA

USS Oscar Austin (DDG 79), Norfolk, VA

USS Roosevelt (DDG 80), Mayport, FL

USS Winston S Churchill (DDG 81), Norfolk, VA

USS Lassen (DDG 82), Yokosuka, Japan

USS Howard (DDG 83), San Diego, CA

USS Bulkeley (DDG 84), Norfolk, VA

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USS McCampbell (DDG 85), Yokosuka, Japan
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USS Shoup (DDG 86), Everett, WA

USS Mason (DDG 87), Norfolk, VA

USS Preble (DDG 88), San Diego, CA

USS Mustin (DDG 89), Yokosuka, Japan

USS Chafee (DDG 90), Pearl Harbor, HI

USS Pinckney (DDG 91), San Diego, CA

USS Momsen (DDG 92), Everett, WA

USS Chung-Hoon (DDG 93), Pearl Harbor, HI

USS Nitze (DDG 94), Norfolk, VA

USS James E Williams (DDG 95), Norfolk, VA

USS Bainbridge (DDG 96), Norfolk, VA

USS Halsey (DDG 97), San Diego, CA

USS Forrest Sherman (DDG 98), Norfolk, VA

USS Farragut (DDG 99), Mayport, FL

USS Kidd (DDG 100), San Diego, CA

USS Gridley (DDG 101), San Diego, CA

USS Sampson (DDG 102), San Diego, CA

USS Truxtun (DDG 103), Norfolk, VA

USS Sterett (DDG 104), San Diego, CA

USS Dewey (DDG 105), San Diego, CA

USS Stockdale (DDG 106), San Diego, CA

USS Gravely (DDG 107), Norfolk, VA

USS Wayne E. Meyer (DDG 108), San Diego, CA

USS Jason Dunham (DDG 109), Norfolk, VA

USS William P. Lawrence (DDG 110), San Diego, CA

USS Spruance (DDG 111), San Diego, CA

USS Michael Murphy (DDG 112), Pearl Harbor, HI

USS John Finn (DDG 113), Pearl Harbor, HI

USS Ralph Johnson (DDG 114), Everett, WA

USS Rafael Peralta (DDG 115), San Diego

USS Thomas Hudner (DDG 116), Mayport, Florida

USS Paul Ignatius (DDG 117), Mayport, Florida

PCU Daniel Inouye (DDG 118), delivered

USS Delbert D. Black (DDG 119), Mayport, Florida

PCU Carl M. Levin (DDG 120), under construction

PCU Frank E. Petersen, Jr. (DDG 121), under construction

John Basilone (DDG 122), under construction

Lenah H. Sutcliffe Higbee (DDG 123), under construction

Harvey C. Barnum, Jr. (DDG 124), under construction

Jack H. Lucas (DDG 125), under construction

Louis H. Wilson Jr. (DDG 126), under construction

Patrick Gallagher (DDG 127), under construction

Ted Stevens (DDG 128), under construction

Jeremiah Denton (DDG 129), under construction

William Charette (DDG 130), under construction

George M. Neal (DDG 131), under contract Quentin Walsh (DDG 132), under contract Sam Nunn (DDG 133), under contract John E. Kilmer (DDG 134), under contract TBD (DDG 135), under contract TBD (DDG 136), under contract John F. Lehman (DDG 137), under contract TBD (DDG 138), under contract TBD (DDG 139), under contract