DD 963 Spruance [VLS] - 1996

United States

Type: DD - Destroyer

Max Speed: 35 kt

Commissioned: 1996

Length: 171.6 m

Beam: 16.8 m

Draft: 8.8 m

Crew: 334

Displacement: 8035 t

Displacement Full: 9100 t

Propulsion: 4x General Electric LM-2500 Gas Turbines, COGAG

Sensors / EW:
- AN/SSQ-108(V)1 Outboard I - ESM, HF/DF w/ OTH Targeting, Max range: 926 km
- AN/SQR-19B(V)3 TACTAS - (1991, Spruance, Arleigh Burke) TASS, Passive-Only Towed Array Sonar System, TASS, Passive-Only Towed Array Sonar System, Max range: 129.6 km
- Mk23 TAS - (1982, Mk91 FCS, SWY-1) Radar, Radar, Target Indicator, 2D Surface-to-Air & Surface-to-Surface, Max range: 203.7 km
- AN/SLQ-32(V)3 [ECM] - (Group, 1983) ECM, OECM & DECM, Offensive & Defensive ECM, Max range: 0 km
- AN/SLQ-32(V)3 [ESM] - (Group, 1983) ESM, ELINT, Max range: 926 km
- AN/SPQ-9 [Mk86 GFCS] - (Group, 1983) Radar, Radar, Target Indicator, 3D Surface-to-Air & Surface-to-Surface, Max range: 37 km
- AN/SPS-55 - (Group, 1983) Radar, Radar, Surface Search & Navigation, Max range: 64.8 km
- AN/SPS-40 - (1963) Radar, Radar, Air Search, 2D Long-Range, Max range: 407.4 km
- AN/SQS-53B(V)1 - (Spruance) Hull Sonar, Active/Passive, Hull Sonar, Active/Passive Search & Track, Max range: 74.1 km
- AN/SPS-64(V)9 [RM 1220 6X] - (20kW, USN, 1x antenna) Radar, Radar, Surface Search & Navigation, Max range: 37 km
- AN/SPG-60 STIR [Mk86 FCS, Radar] - (1994, Sea Sparrow) Radar, Radar, FCR, Surface-to-Air & Surface-to-Surface, Short-Range, Max range: 88.9 km
- Mk1 Mod 2 ROS - (1994, Sea Sparrow) Visual, LLTV, Weapon Director & Target Search, Slaved Tracking and Identification, Max range: 185.2 km
- Mk95 [EO] - (Mk6 Mod 0, Mk91 FCS) Visual, Visual, Target Tracking and Identification TV Camera, Max range: 148.2 km
- Mk95 [Radar] - (MFCR, Mk91 FCS) Radar, Radar Illuminator, Medium-Range, Max range: 118.5 km
- Mk1 Mod 2 ROS - (MFCR, Mk91 FCS) Visual, LLTV, Weapon Director & Target Search, Slaved Tracking and Identification, Max range: 185.2 km

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Weapons / Loadouts:
- RIM-116A RAM Blk 0 - (1993) Guided Weapon. Air Max: 11.1 km. Surface Max: 11.1 km.
- RIM-7P Sea Sparrow - (1994) Guided Weapon. Air Max: 25.9 km. Surface Max: 25.9 km.
- 20mm/85 Mk15 Phalanx Blk 0 Burst [200 rnds] - Gun. Air Max: 1.5 km.
- 12.7mm/50 MG Burst [10 rnds] - (Facility/Ship, No Anti-Air Capability) Gun. Surface Max: 1.9 km. Land Max: 1.9 km.
- 127mm/54 HE-CVT [HiFrag] - (USN) Gun. Air Max: 2.8 km. Surface Max: 20.4 km. Land Max: 20.4 km.
- 127mm/54 HE-PD [HiCap] - (USN) Gun. Air Max: 2.8 km. Surface Max: 20.4 km. Land Max: 20.4 km.
- 127mm/54 WP - (USN) Gun. Surface Max: 20.4 km. Land Max: 20.4 km.
- RGM-84D Harpoon IC - (1986) Guided Weapon. Surface Max: 138.9 km.
- Mk214 Sea Gnat Chaff [Seduction] - (1987) Decoy (Expendable). Surface Max: 1.9 km.
- Mk216 Sea Gnat Chaff [Distraction] - (1988) Decoy (Expendable). Surface Max: 1.9 km.
- Mk186 TORCH Flare [Seduction] - (1979) Decoy (Expendable). Surface Max: 1.9 km.
- AN/SLQ-25 Nixie - Decoy (Towed). Surface Max: 1.9 km.
- Mk46 NEARTIP Mod 5 - (1984) Torpedo. Subsurface Max: 7.4 km.
- Mk50 Barracuda Mod 0 ALWT - (1991) Torpedo. Subsurface Max: 7.4 km.
- RUM-139A VLA [Mk46 Mod 5] - (1993) Guided Weapon. Subsurface Max: 16.7 km.
- RGM-109D Tomahawk Blk II TLAM-D - (1989-1998) Guided Weapon. Land Max: 2500.2 km.
- RGM-109D Tomahawk Blk III TLAM-D - (1996) Guided Weapon. Land Max: 1296.4 km.
- RGM-109C Tomahawk Blk III TLAM-C - (1994) Guided Weapon. Land Max: 1296.4 km.
- RGM-109C Tomahawk Blk II TLAM-C - (1987-1998) Guided Weapon. Land Max: 1666.8 km.

OVERVIEW: The Spruance-class destroyer was developed by the United States to replace a large number of World War II-built Allen M. Sumner class and Gearing class destroyers and was the primary destroyer built for the U.S. Navy during the 1970s.

First commissioned in 1975, the class was designed with gas-turbine propulsion, all-digital weapons systems, and automated 5-inch guns. Serving for three decades, the Spruance class was designed to escort a carrier group with a primary ASW mission, though in the 1990s 24 members of the class were upgraded with the Mark 41 Vertical Launching System (VLS) for the Tomahawk surface-to-surface missile.

DETAILS: The class was designed for anti-submarine warfare (ASW) with point defense anti-aircraft warfare (AAW) missiles; upgrades provided anti-ship and land attack capabilities. The ships were initially controversial, especially among members of the United States Congress who believed that their unimposing looks, with only two guns and an ASROC or Armored Box Launcher (ABL) missile launcher per ship implied that the vessels were weak compared to Soviet or older US designs which had more visible guns or launchers for the Standard medium range missiles. Despite the criticism they were successful in their intended ASW role.

The Spruances were comparable in size to cruisers (CG) under the U.S. Navy's hull classification symbol system. Despite their "DD" designation indicating gun destroyers, their primary armament was missiles. However the Spruance class as designed carried anti-aircraft missiles only sufficient for point defense, compared to other American destroyers designated as DDG which were designed to provide anti-aircraft warfare screening to the fleet while also having surface-to-surface capabilities. A major update in the 1990s would add a Vertical Launch Missile System (VLS) for the Tomahawk surface-to-surface missile which effectively made the modernized vessels up to DDG standard, although this class still lacked the stealth and missile capabilities of later Aegis equipped cruisers and destroyers.

The "Spru-cans" were the first large U.S. Navy ships to use gas turbine propulsion; they had four General Electric

LM2500 gas turbines to generate about 80,000 horsepower (60 MW). This configuration (developed in the 1960s by the Royal Navy and known as COmbined Gas And Gas, or COGAG) was very successful and used on most subsequent U.S. warships. A slightly lengthened version of the hull was also used for the Ticonderoga-class cruisers. As of 2010, all US Navy surface combatants (except nuclear aircraft carriers and the LCS-1) use the LM2500 COGAG arrangement, usually with two such turbines per shaft.

TYPE: Destroyer (DD).

SPECIFICATIONS: Displacement: 8,040 (long) tons full load || Length: 529 ft (161 m) waterline; 563 ft (172 m) overall || Beam: 55 ft (16.8 m) || Draft: 29 ft (8.8 m) || Propulsion: (4) General Electric LM2500 gas turbines, (2) shafts, 80,000 shp (60 MW) || Complement: (19) officers, (315) enlisted.

PERFORMANCE: Speed: 32.5 knots (60 km/h) || Range: 6,000 nautical miles (11,000 km; 6,900 mi) at 20 knots (37 km/h; 23 mph)
3,300 nautical miles (6,100 km; 3,800 mi) at 30 knots (56 km/h; 35 mph).

SENSORS: AN/SPS-40 air search radar || AN/SPG-60 fire control radar || AN/SPS-55 surface search radar || AN/SPQ-9 gun fire control radar || Mk 23 TAS automatic detection and tracking radar || AN/SPS-65 Missile fire control radar || AN/SQS-53 bow mounted active sonar || AN/SQR-19 TACTAS towed array passive sonar || Naval Tactical Data System || AN/SLQ-32 Electronic Warfare System || AN/SLQ-25 Nixie Torpedo Countermeasures || Mark 36 SRBOC Decoy Launching System || AN/SLQ-49 Inflatable Decoys || AN/WLR 1 in DD-971 & DD-975.

ARMAMENT: (2) 5-inch (127mm) 54 calibre Mark 45 dual purpose guns || (2) 20 mm Phalanx CIWS Mark 15 guns || (1) 8 cell ASROC launcher || (1) 8 cell NATO Sea Sparrow Mark 29 missile launcher || (2) quad Harpoon missile canisters || (2) Mark 32 triple 12.75 in (324 mm) torpedo tubes (Mk 46 torpedoes) || (2) quad ABL Mark 43 Tomahawk missile launchers (some ships of the class) || (1) 21 cell Rolling Airframe Missile launcher in some ships || (1) 61-cell Mark 41 VLS launcher for Tomahawk/ASROC missiles was fitted to 24 ships in place of the 8-cell ASROC launcher.

SHIPS BUILT: Spruance (DD-963) || Paul F. Foster (DD-964) || Kinkaid (DD-965) || Hewitt (DD-966) || Elliot (DD-967) || Arthur W. Radford (DD-968) || Peterson (DD-969) || Caron (DD-970) || David R. Ray (DD-971) || Oldendorf (DD-972) || John Young (DD-973) || Comte de Grasse (DD-974) || O'Brien (DD-975) || Merrill (DD-976) || Briscoe (DD-977) || Stump (DD-978) || Conolly (DD-979) || Moosbrugger (DD-980) || John Hancock (DD-981) || Nicholson (DD-982) || John Rodgers (DD-983) || Leftwich (DD-984) || Cushing (DD-985) || Harry W. Hill (DD-986) || O'Bannon (DD-987) || Thorn (DD-988) || Deyo (DD-989) || Ingersoll (DD-990) || Fife (DD-991) || Fletcher (DD-992) || Hayler (DD-997).

SOURCE: Wikipedia http://en.wikipedia.org