

USS SKATE

SSN 578



USS SKATE (SSN 578)

The SKATE is the third American submarine to bear this name. The first was the SS 23 (F-4) sunk in 1915, and the second was the World War II SS 305, used in the atomic bomb tests at Bikini in 1946.

SKATE was built by the Electric Boat Division of General Dynamics Corporation and the reactor plant was built by the Westinghouse Corporation. She was commissioned on 23 December 1957, seven months ahead of schedule.

The ship embodies many improvements made since World War II, not only in the power plant which is still revolutionary, but in space, living accommodations, maneuverability and in fighting ability. Her hull characteristic is derived from that of the Fast Attack class of submarines.

SKATE was designed to be an Attack submarine and intended to operate primarily against surface vessels. In this she has shown herself to be extremely capable. In addition, she has proven herself competent in the field of submarine versus submarine operations.

The reactor in SKATE contains enriched uranium. When critical, it develops intense heat which is removed through a pressurized water system and used to generate steam for power.

The reactor is similar to that used in NAUTILUS, but is smaller. Yet, it develops enough power to drive SKATE through the water at speeds in excess of twenty knots submerged.

Because of the nature of her operations which are usually long and which require prolonged submergence, SKATE is fitted out with equipment necessary to maintain her atmosphere pure.

SKATE and her sisters have pushed back the frontiers and have completely demonstrated the ascendancy of nuclear power over conventional power sources. They stand ready as a deterrent to war, and they attest to the growing strength of the United States and in the prowess of her workmen and their technology.

SIGNIFICANT ACHIEVEMENTS OF SKATE

4 March, 1958

Record East-West Atlantic Crossing—203 hours.

29 March, 1958

Record West-East Atlantic Crossing—173 hours.

Record long-term submergence independent of earth's atmosphere—31 days 5½ hours.

12 August, 17 August, 18 August, 1958

Passed under North Pole three times.

14 August, 1958

Surfaced at Floating Ice Station ALPHA.

18 August, 1958

Circumnavigated Earth at 2 miles radius.

17 March, 1959

Broke through ice and surfaced at North Pole.

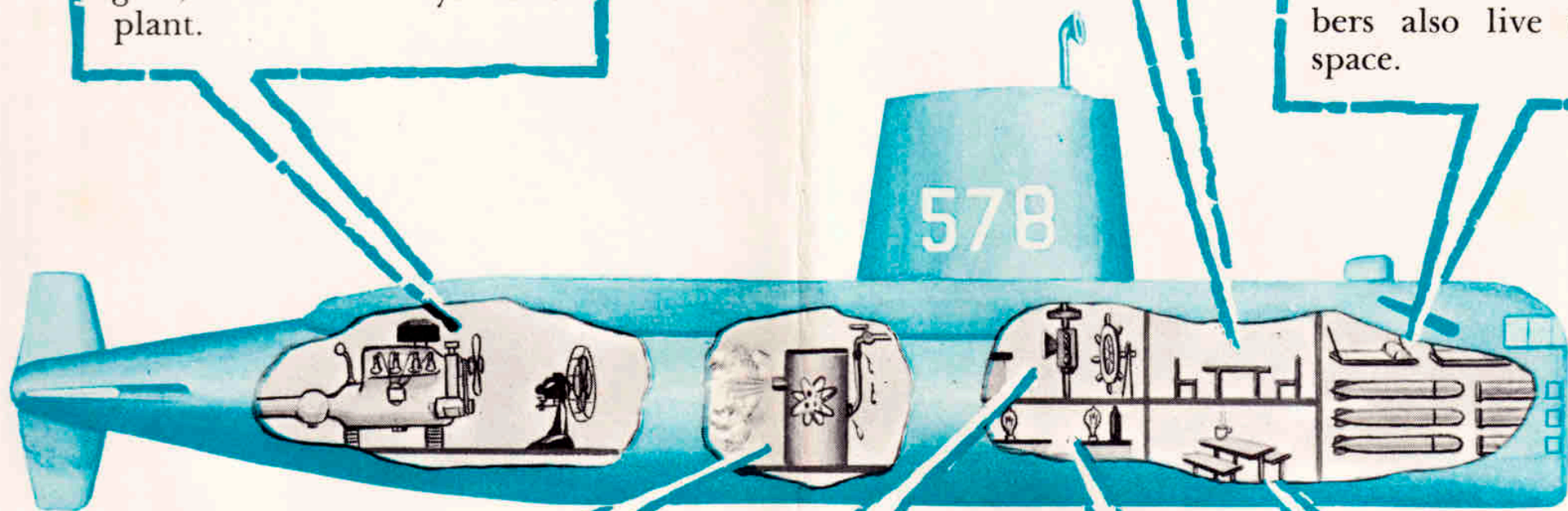


*Awarded 2 Navy Unit Commendations for
pioneer polar work in August, 1958
and March, 1959.*

The engineroom is the area where the steam created in the reactor compartment is converted into power using turbines. From these the ship is driven. In this space is also located the air conditioning, an auxiliary engine, and the hydraulic plant.

The wardroom is the space where the Captain and his officers live. The ship's office is also located here and here most of the administrative work is done.

The torpedo room holds the punch of the submarine — her torpedoes. In this area are stowed all torpedoes ready to be put into the six torpedo tubes in the forward part of the room. Some crew members also live in this space.

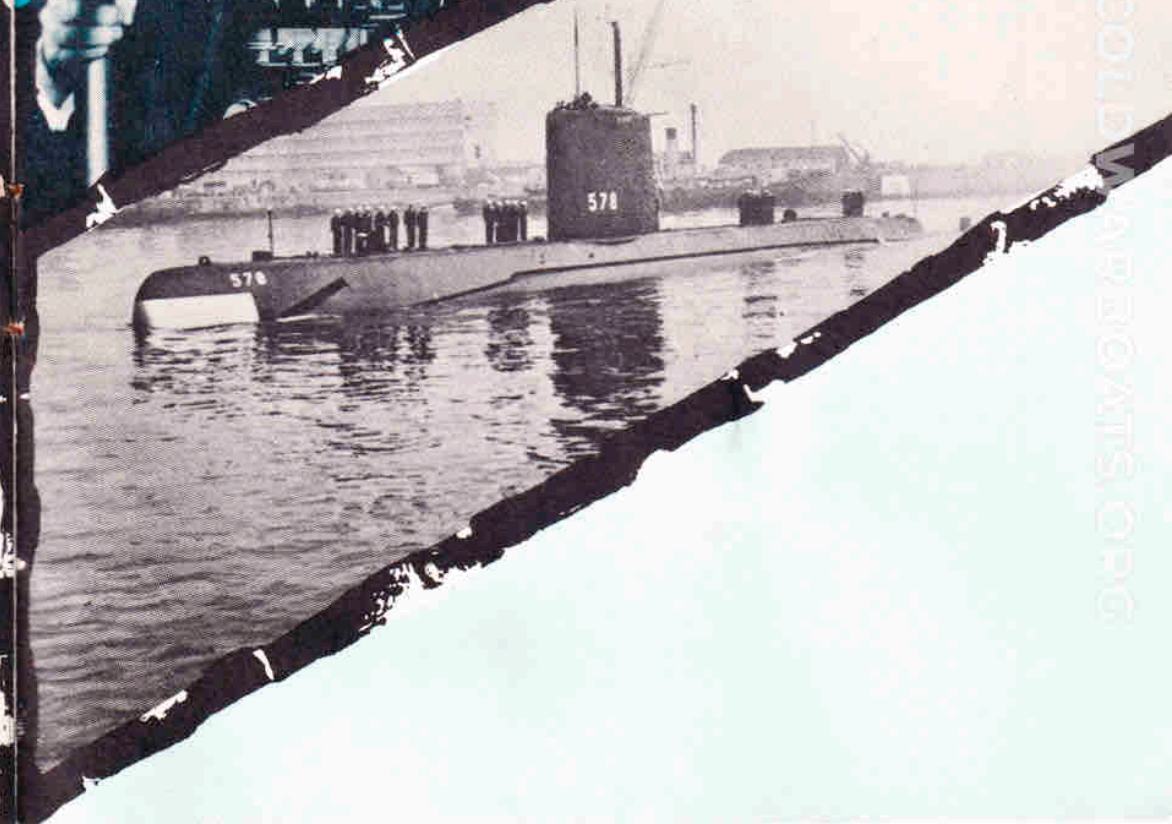
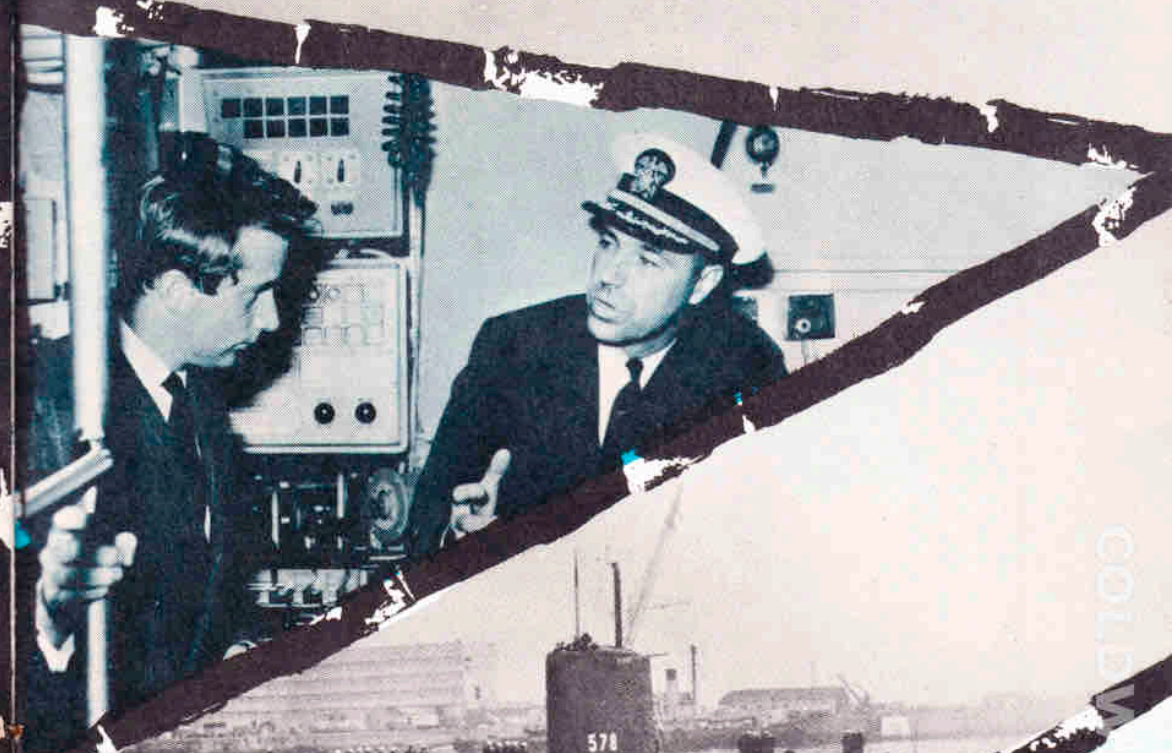
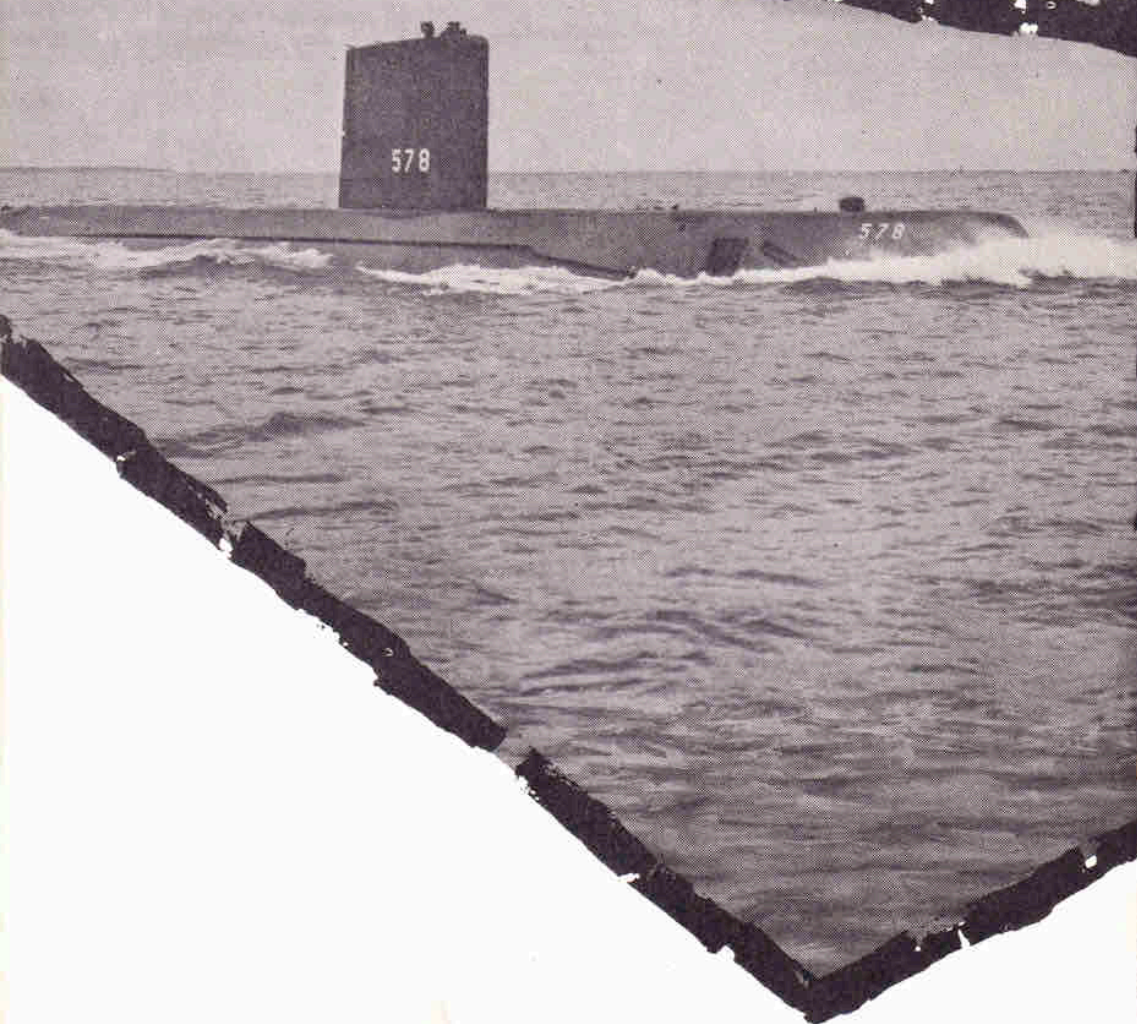
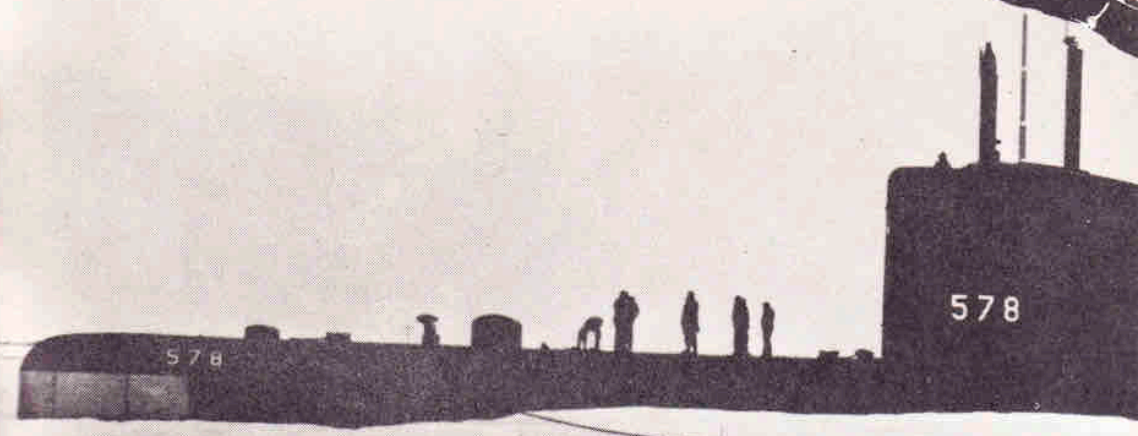
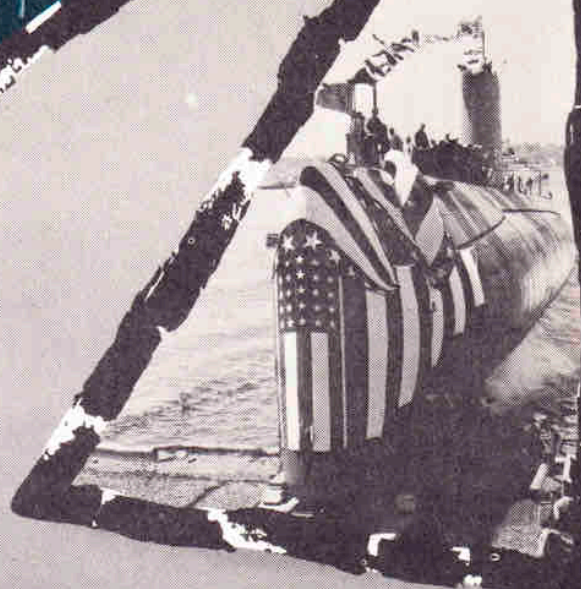
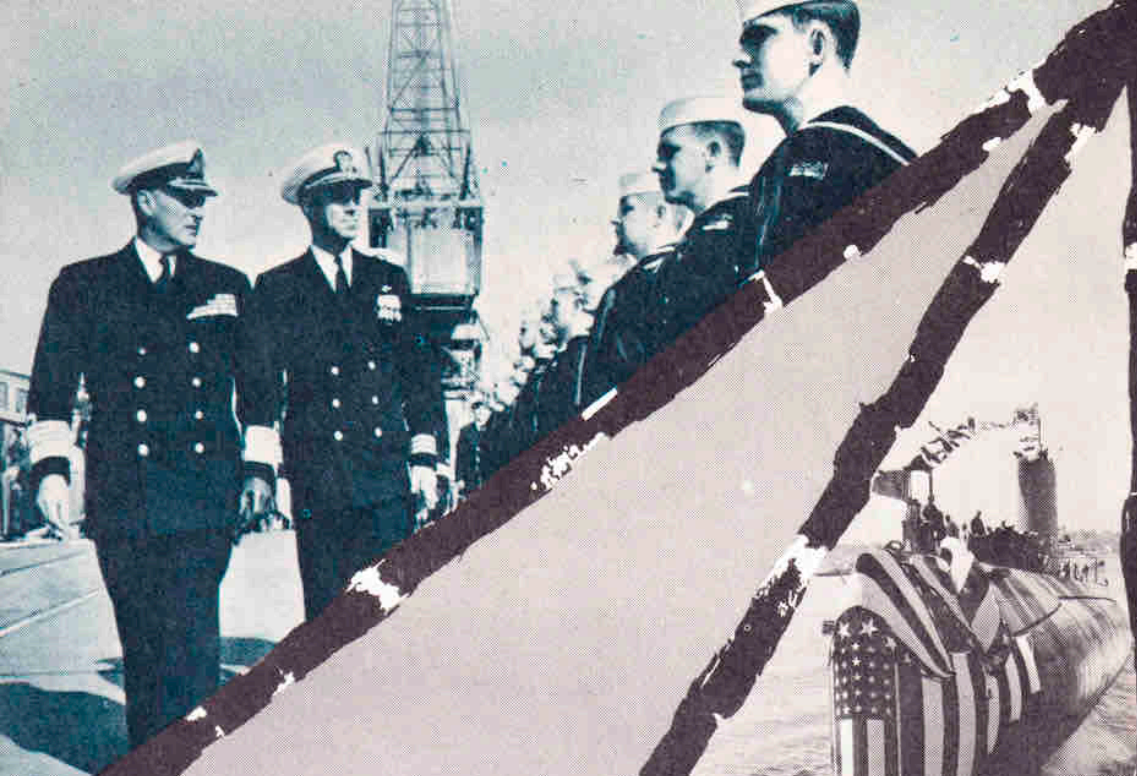


The reactor compartment holds the nuclear reactor from which heat is converted into steam by passing water of great heat and high pressure through a steam generator.

The attack center is the heart of the ship. From here the ship is steered and dived, attack problems are solved, and here all decisions affecting the ship's actions are made.

The IC Space is a machinery and electrical area where the electrical distribution system is located. Facilities for repair work and for the atmosphere regeneration system are also here.

Crew's Mess and Berthing. The bulk of the crew sleep in this area. Meals are prepared and eaten, and entertainment such as movies and music are provided. The battery is located below.



SKATE SSN 578

TYPE: Attack BUILDER: General Dynamics Corporation
PROPULSION: Water-cooled reactor LENGTH: 268 Feet
DISPLACEMENT: 2,360 Tons COMMISSIONED: Dec. 23, 1957
Skate, delivered seven months ahead of schedule, is the first nuclear submarine designed for quantity production.

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