

THE USS HADDO SSN-604

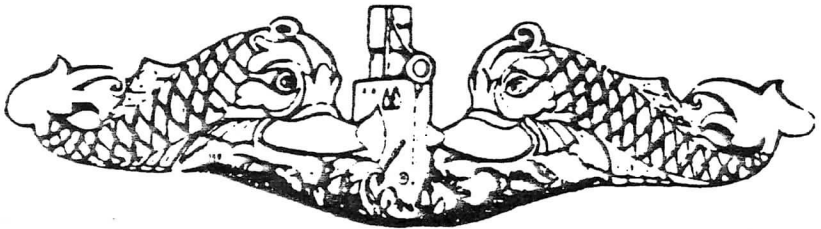


WELCOMES YOU ABOARD

WELCOME ABOARD

Among the proudest and most enjoyable moments in a submariner's professional life are those spent exhibiting his ship to visitors. The relationship between the submariner and his ship is intimate to the point that he tends to radiate a personal pride in his submarine; his link with heroism of past submarine achievements, accomplishments, sacrifices and exultation. We are most anxious for you to understand and perhaps even share in these feelings.

HADDO is a nuclear powered attack submarine of the PERMIT (SSN 594) class. Her principle mission as an attack submarine is to operate against submarine or surface ship targets. Surpassing the underwater capabilities of any class of ship before her, HADDO carries detection, communication, navigation, propulsion and computerized weapons systems of the most advance design. For months, she can cruise quietly submerged with a maximum of comfort for her crew, and with her ever ready potential for delivery of any submarine tactical weapon the Navy possesses—against submerged or surface vessels. This versatile warship, in addition to her primary capability of firing HARPOON MISSILES, and conventional torpedoes, can lay mines, perform reconnaissance, support frogman operations, transport troops and equipment, coordinate with surface ships and aircraft in conducting anti-submarine operations, carry out rescue at sea missions; all without exposing herself to hostile forces or detection.



HOW NUCLEAR POWER OPERATES A SUBMARINE

The power plant of a nuclear submarine is based upon a nuclear reactor which provides heat for the generation of steam. This, in turn, drives the main propulsion turbines and the ship's turbo-generators for electrical power.

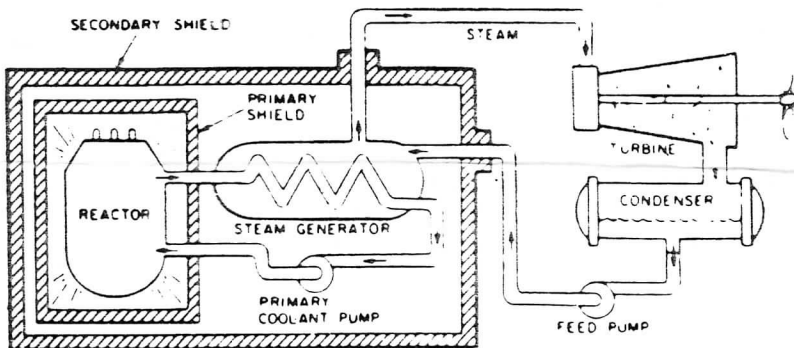
The primary system is a circulating water cycle and consists of the reactor, loops of piping, primary coolant pumps and steam generators. Heat produced in the reactor by nuclear fission is transferred to the circulating primary coolant water which is pressurized to prevent boiling. This water is then pumped through the steam generator and back into the reactor by the primary coolant pumps for reheating in the next cycle.

In the steam generator, the heat of the pressurized water is transferred to a secondary system to boil water into steam. This secondary system is isolated from the primary system.

From the steam generators, steam flows to the engine room where it drives the turbo-generators, which supply the ship electricity, and the main propulsion turbines, which drive the propeller. After passing through the turbines, the steam is condensed and the water is fed back to the steam generators by the feed pumps.

There is no step in the generation of this power which requires the presence of air oxygen. This fact alone allows the ship to operate completely independent from the earth's atmosphere for extended periods of time.

During the operation of the nuclear power plant, high levels of radiation exist around the reactor and personnel are not permitted to enter the reactor compartment. Heavy shielding protects the crew so that the crew member receives less radiation on submerged patrol than he would receive from natural sources ashore.



SHIP'S HISTORY

USS HADDO (SSN 604) was built by New York Shipbuilding Corporation, Camden, New Jersey. Her keel was laid on 9 September 1960, and she was launched on 18 August 1962 under the sponsorship of Mrs. Henry M. Jackson, wife of United States Senator from the state of Washington. On 16 December 1964, HADDO was placed in commission in Camden, New Jersey, and became a member of Submarine Squadron FOUR.

During the summer of 1965 HADDO became the first ship of her class to be deployed to the Mediterranean Sea with the U.S. Sixth Fleet. In October 1967, HADDO accumulated 365 full days of submerged operations. For operations during a period in 1966, HADDO was awarded the Navy Unit Commendation, and was awarded the Meritorious Unit Commendation for operations conducted during a period in 1967. The awards were received for meritorious service during important and arduous independent operations of great importance to the national defense. As a result of the outstanding teamwork and many long hours of training and operations during fiscal years 1968 and 1969, HADDO was awarded the Battle Efficiency "E". HADDO then received an eighteen month "subsafe" overhaul at Charleston Naval Shipyard from August 1969 to April 1970. Following overhaul, HADDO's homeport changed to New London, Connecticut, where she became a member of Submarine Squadron TEN. HADDO operated out of New London from 1971 to 1973. In the spring of 1972 HADDO completed the first six month Mediterranean deployment for an SSN. In the fall of 1972, she again deployed to the Med, returning just prior to Christmas.

From August 1973 until December 1975, HADDO underwent an extensive refueling overhaul at Ingalls Shipyard in Pascagoula, Mississippi. In February of 1976 HADDO's homeport shifted again: this time to San Diego, California and joining the Pacific Fleet, as a member of Submarine Squadron THREE. The shift required HADDO to transit through the Panama Canal.

In the spring of 1977, HADDO deployed for the Western Pacific, returning in the fall of 1977 after an arduous six month deployment. During the first three months of 1978, HADDO accomplished an intensive Selected Restricted Availability (SRA) at Puget Sound Naval Shipyard in Bremerton, Washington. In December 1978, HADDO again deployed to the Western Pacific, visited New Zealand and returned in June 1979.

HADDO arrived at Mare Island Naval Shipyard for another intensive Selected Restricted Availability in February 1980. In August of the same year she deployed to the Indian Ocean, visited Australia and returned to San Diego in February of 1981.

In July of 1981 HADDO deployed to the Western Pacific, visited Japan and returned to San Diego in late October 1981. HADDO arrived at Mare Island Naval Shipyard in April of 1982 and underwent an extensive modernization and overhaul. In January 1984 she returned to San Diego as an active member of Submarine Squadron THREE.

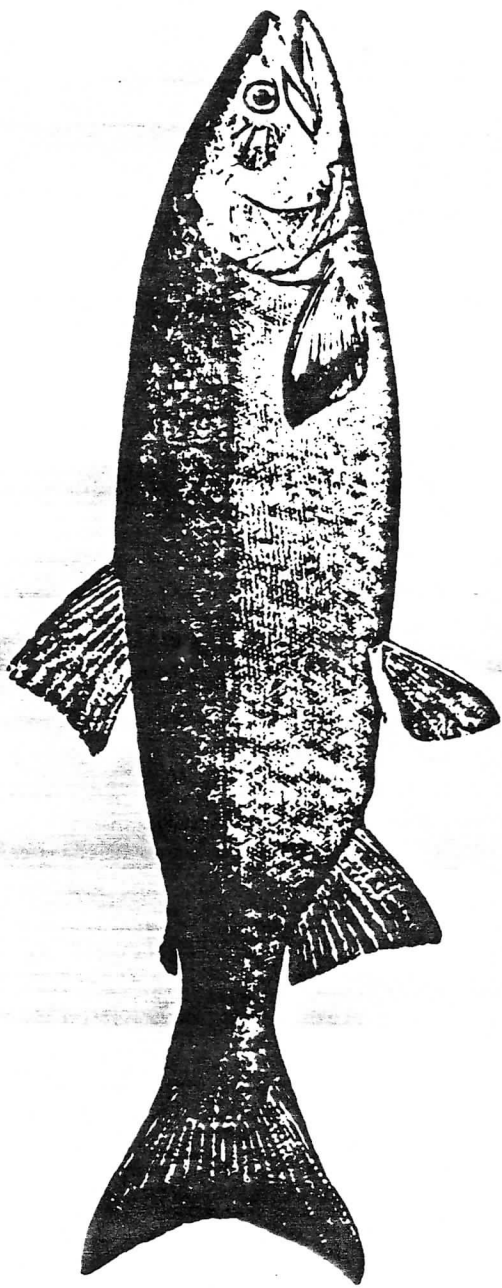
In February of 1985 HADDO deployed to the Western Pacific. After a very successful six months of independent operations HADDO returned to San Diego and completed a two month Selected Restricted Availability. HADDO was awarded the Battle Efficiency "E" for fiscal year 1985.

SHIP'S HERITAGE

USS HADDO (SSN 604) is the second U.S. Naval submarine to bear the name HADDO. The keel of her predecessor, USS HADDO (SS 255), was laid October 1, 1941 at Electric Boat Company, Groton, Connecticut. Launching ceremonies were held on June 21, 1942 with Mrs. Charles S. Russel, wife of the then Administrative Assistant to the Chief of Naval Personnel, as the ship's official sponsor. After commissioning on October 9, 1942 and completing dock and acceptance trials, USS HADDO (SS 255) left on her first war patrol April 9, 1943 with Lieutenant Commander W.A. Lent, USN, as her first skipper. During her World War II career she made three war patrols in the European-African-Middle area followed by seven in the Asiatic-Pacific area. Commander John Corbus, USN, was skipper for the third and fourth patrols and was relieved in command by Lieutenant Commander Chester S. Nimitz, Jr., USN, for the next three patrols. It was during the last of these, HADDO's seventh patrol, that she earned the Navy Unit Commendation "For outstanding heroism in action...off the Philippines...sending to the bottom two destroyers and a patrol vessel with another destroyer lying crippled in the water before her torpedoes were expended".

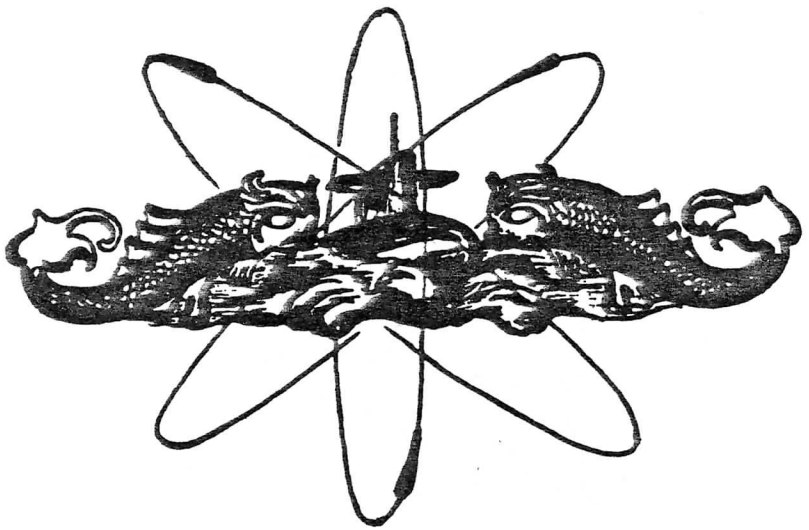
Following this patrol Commander Nimitz was relieved in command by Lieutenant Commander Frank Lynch, USN, who served as Commanding Officer until decommissioning. HADDO's tenth and final war patrol terminated in Tokyo Bay in September 1945 when she participated in the occupation of Japan. On October 9, 1945 exactly three years after commissioning USS HADDO (SS 255) returned to the Submarine Base at New London for decommissioning. During her war patrols she had fired 93 torpedoes and logged nearly 200,000 miles in three years searching for the enemy. During which time she was officially credited with sinking 44,000 tons of shipping and damaging 14,500 more. In this brief career the officers and men of her crew earned two Navy Crosses, seven Silver Stars, ten Bronze Stars and twelve Letters of Commendation. USS HADDO (SS 255) herself was awarded the Submarine Combat Insignia for four outstanding war patrols as well as the Navy Unit Citation.





HADDO

All submarines of the United States Navy with the exception of the *Polaris* and special types carry the name of fish. HADDO is named for one of several varieties of Northern Pacific Coast Salmon, better known as the "gorbuscha", humped-back or pink salmon. Its scientific name, "Aeglesinif" meaning "voracious". HADDO is the smallest of Pacific Salmon, weighing 3 to 5 pounds. The least migratory of the Pacific Salmon it spawns only a few miles above sea water. When the HADDO migrates to fresh water to spawn, it develops the distinguishing humped-back caused by sudden formation of cartilage between the back of the head and beginning of the dorsal fin. A hooked snout also develops from rapid elongation of bones of its upper part.



SHIP'S CHARACTERISTICS

The USS HADDO (SSN 604) is a deep diving, fast attack nuclear powered submarine capable of operating covertly for long periods with almost unlimited endurance and range. These characteristics, coupled with the latest in submarine weapons system, make HADDO one of the Navy's most effective anti-submarine weapons. She is very lethal to both hostile submarine and surface shipping. HADDO, therefore, plays a vital role in establishing and maintaining our sea power for the defense of America and our rights in the open sea.

Length.....	278 ft 6 inches
Beam (Extreme).....	31 ft 8 inches
Displacement	
Surfaced.....	3501 tons
Submerged.....	4311 tons
Propulsion.....	Nuclear Reactor
Speed.....	Over 20 Knots
Submergence Depth.....	Greater than 400 ft.
Armament.....	Torpedoes, Harpoon and SUBROC missiles
Complement.....	15 Officers
	116 Enlisted
Keel Laid.....	Sept 9, 1960
Launched.....	August 18, 1962
Commissioned.....	December 16, 1964
Builder.....	New York Shipbuilding Corporation