

SUBMARINE QUALIFICATION CERTIFICATE



Interior Communications Electrician Second Class

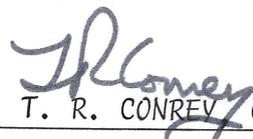
Jimmy Dale Hunt

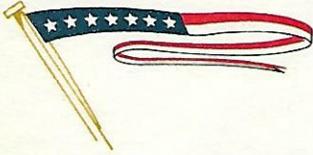
Having successfully completed the rigorous professional requirements for qualification in submarines, having gained a thorough knowledge of submarine construction and operation, having demonstrated his reliability under stress, and having my full confidence and trust, I hereby certify that he is

Qualified in Submarines

Given this 2nd day of May 19 79

On Board U.S.S. HENRY L. STIMSON (SSBN 655)


T. R. CONREY Commander, U.S. Navy
COMMANDING OFFICER



The Commanding Officer
USS HENRY L. STIMSON (SSBN-655)

21 May 1979

Mr. and Mrs. J. B. Cooper
Rt. 1 Box 160C
Boyd, TX 76023

Dear Mr. and Mrs. Cooper,

It was recently my pleasure to award your son the "dolphins" which signify that he is Qualified in Submarines. As you probably know this designation is respected and coveted both in the Submarine Service and the Navy at large, coming, as it does, only after the successful completion of a long program of study, training, learning, and experience.

The very backbone of any spirited and effective submarine crew is that group of trained and knowledgeable men who are designated "Qualified in Submarines". I trust that you share the pleasure and pride that the crew and I feel in Jimmy's having earned his "dolphins".

Sincerely,

T. R. CONROY
Commander, U.S. Navy
Commanding Officer

WELCOME ABOARD



HENRY L. STIMSON
SSBN 655



HENRY L. STIMSON is the thirty seventh member of the Polaris/Poseidon fleet of forty one nuclear powered Fleet Ballistic Missile Submarines.

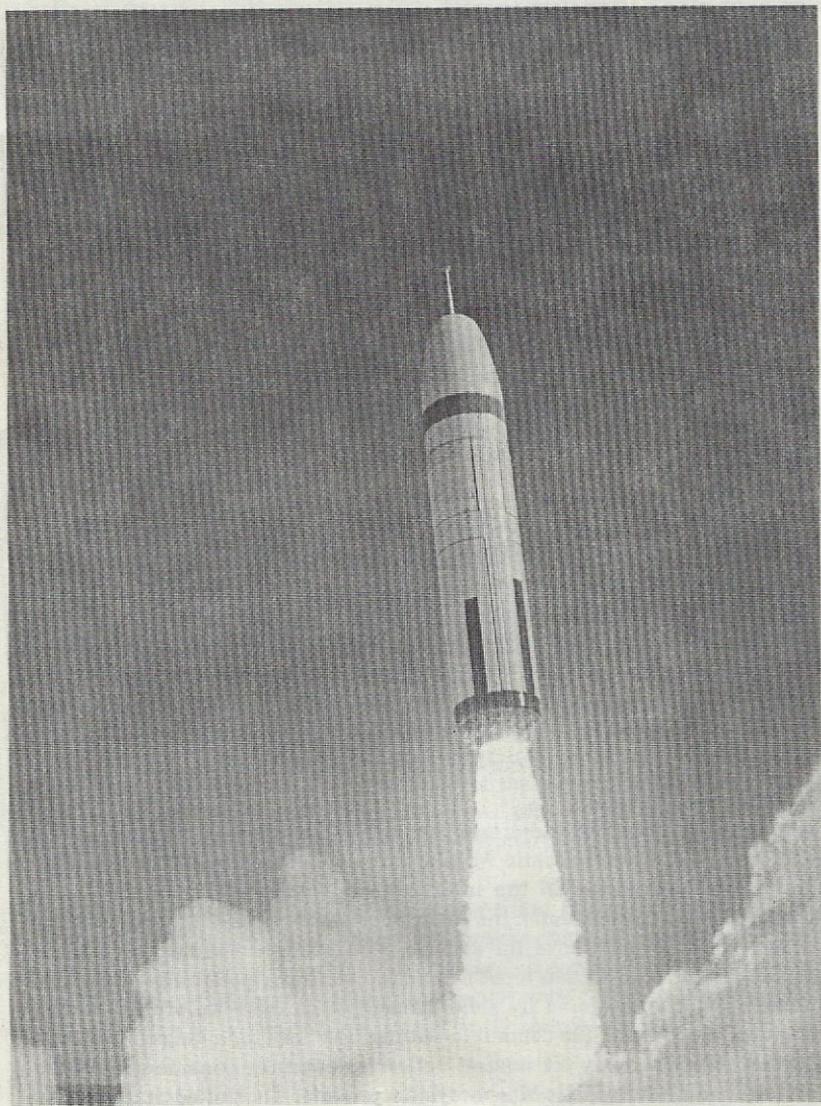
Her keel was laid on April 4, 1964, at the Electric Boat Division of General Dynamics in Groton, Connecticut. She was launched on November 13, 1965, after being christened HENRY L. STIMSON by Mrs. Thomas DODD, the wife of Connecticut's senior senator. HENRY L. STIMSON is the first ship of the fleet to be named in honor of the American attorney, soldier, diplomat and statesman. The crossed swords on the insignia of the USS HENRY L. STIMSON represent his belief that to keep peace you must be strong to resist aggression. On August 20, 1966, she was formally commissioned with two separate and autonomous crews, the Blue crew under Captain Richard E. JORTBERG, USN, and the Gold crew under Commander Robert H. WEEKS, USN. In November 1966, both crews successfully fired two A-3 Polaris missiles in the Atlantic Missile Test Range. After final sea trials and torpedo fire control systems testing, HENRY L. STIMSON began her first operational deterrent patrol in February 1967.

STIMSON received a Meritorious Unit Citation for meritorious service during the period from 19 August to 9 September 1970, while participating in an Operation of great importance to the United States. Throughout the operation STIMSON demonstrated conclusively the effectiveness and dependability of the Fleet Ballistic Missile System.

In November 1971, HENRY L. STIMSON commenced its first major overhaul period at the Newport News Shipbuilding and Drydock Company, Newport News, Va. Here HENRY L. STIMSON was converted to the more advanced and sophisticated Poseidon Weapons System. On completion of the Conversion/Overhaul period in March, 1973, two crews were once more reestablished on HENRY L. STIMSON.

In June 1973, both crews successfully completed their Demonstration and Shakedown Operations (DASO). After Post Conversion Availability and final sea trials, HENRY L. STIMSON once more returned to perform as a major force in the prevention of a nuclear war.

USS HENRY L. STIMSON is currently attached to Submarine Squadron SIXTEEN and operates out of Kings Bay, Georgia.



TRIDENT I MISSILE

FLEET BALLISTIC MISSILE

The Fleet Ballistic Missile Weapons system, better known by the name of its missile Polaris, has been operational since November 1960. USS GEORGE WASHINGTON (SSBN 598) was the first Polaris submarine to deploy on an operational patrol. The next four to join her were of the same class and carried the 1,200 nautical mile range A-1 missile. The latter construction FBM submarine carried the second and third generation Polaris. STIMSON had been modified to carry the fourth generation ballistic missile, Poseidon C3, and is currently modified to carry the fifth generation ballistic missile, Trident C4.

THE MISSILE

Trident, is a three stage ballistic missile powered by solid rocket motors. The 4,000 nautical mile range operational missile is designated the Trident C4. It is about 35 feet long, about four and one-half feet in diameter, and weights about 70,000 pounds. Each motor exerts thrust through one nozzle in the motor base.

MISSILE LAUNCHING

Trident missiles are launched by a gas-ejection system which forces the missile from its launching tube and propels it up through the water to the surface. At that point the rocket motor ignites and sends the missile on its way. The system takes advantage of the reliability of solid propellant fuel used in POLARIS. The result is increased safety for the submarine and crew. Vital parts of each missile are accessible for inspection and maintenance even when loaded in the launching tubes and while the submarine is underway at sea. Monitoring and necessary repairs are accomplished by the ships crew so that the missiles are always ready.

MISSILE CONCEPT

With almost unlimited cruising range and with endurance limited only by the crew, the Fleet Ballistic Missile Submarine is capable of extended submerged operations in the international waters of the world which comprise about 70 percent of the earth's surface. Free of the need to surface or extend a snorkel above the surface, FBM nuclear submarines remain hidden by the ocean, their locations unknown to any potential enemy. The Trident missile, powered by solid propellant, is ready to launch within minutes of receiving the command without the need for a long countdown. Mobile, hidden, ready for instant action (or carefully considered delayed action), the Fleet Ballistic Missile system provides the United States with a powerful deterrent to those who might start a global war.

THE POWER PLANT

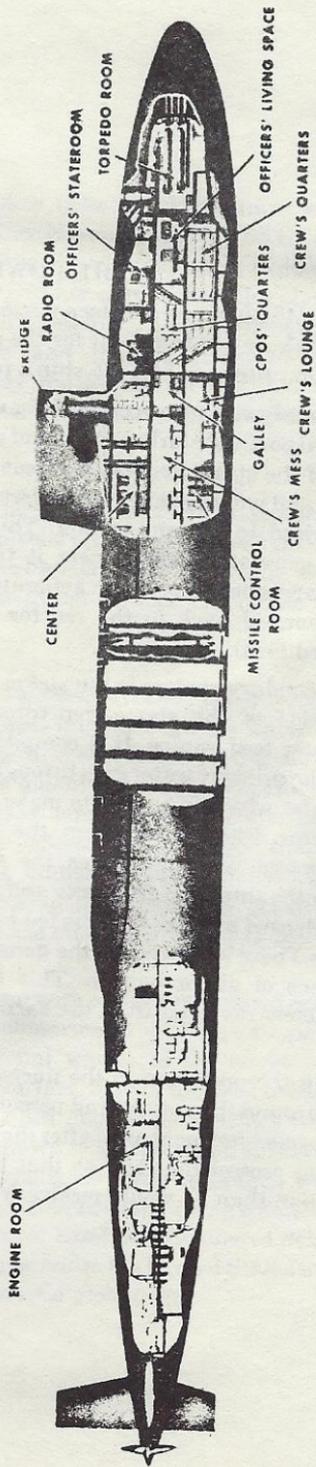
The STIMSON is powered by a nuclear power plant consisting of a nuclear reactor which provides heat for the generation of steam to drive the main propulsion turbines and the ship's turbo generators for electric power.

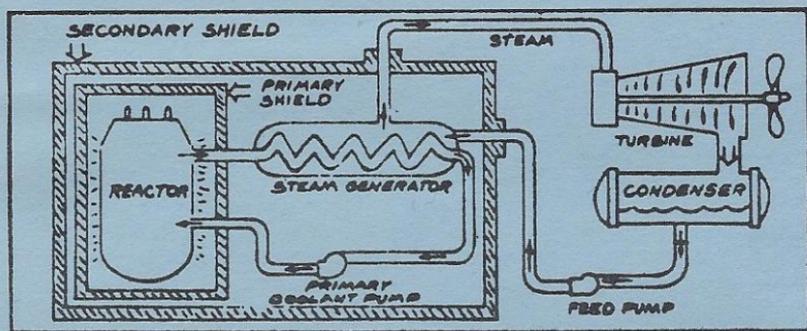
The primary system is a circulating water cycle and consists of the reactor, identical port and starboard loops of piping, primary coolant pumps and the tubes of the steam generators. Heat is produced in the reactor by nuclear fission and is transferred to the circulating primary coolant water which is pressurized to prevent boiling. This water is then pumped through the steam generator tubes where it transfers its heat to the shell or the secondary side of the steam generators and boils water to form steam. It is then pumped back to the reactor by the primary coolant pumps and reheated for the next cycle.

The secondary system is the steam producing cycle and is made up of the shell side of the steam generators, turbines, condensers, and steam generator feed pumps. It is completely isolated from the primary system since the primary water goes through the tubes of the steam generator while the water which is boiling to make steam is on the shell side of the steam generator. Steam rises from the steam generators, then flows to the engineroom where it drives the ship's service turbo-generators which supply the ship with electricity and 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 the power which requires the presence of air or oxygen. This fact alone allows the ship to operate completely divorced 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 entrance into the reactor compartment until after the reactor is shut down. Heavy shielding is used to protect the crew so that the average crew member receives less radiation than he would receive from natural sources ashore.

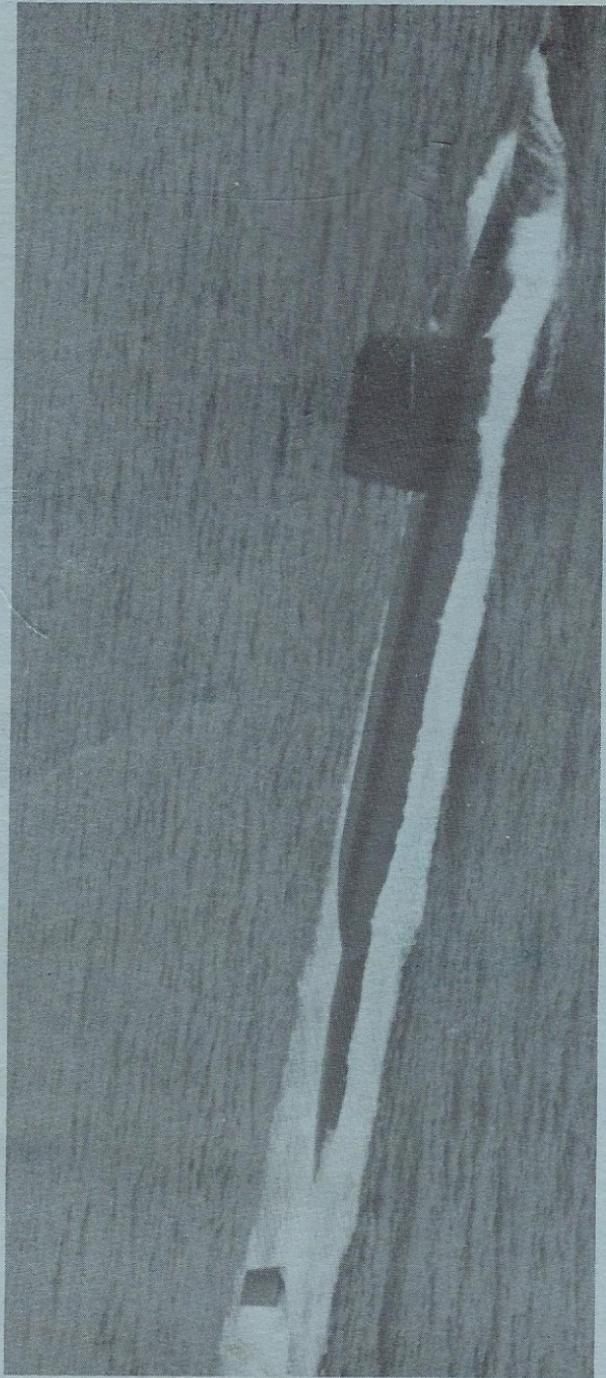
FBM SUBMARINE





VITAL STATISTICS

Keel laid	4 April 1964	Length	425 feet
Launched	13 November 1965	Beam	33 feet
Commissioned	20 August 1966		
Displacement Surfaced	about 7200 tons		
Displacement Submerged	about 8200 tons		
Speed Submerged	Over 20 knots		
Diving Depth	over 400 feet		
Built by	Electric Boat Division of General Dynamics		



USS HENRY L. STIMSON SSBN 655