WELCOME ABOARD

USS STURGEON [SSN 637]

USS STURGEON

SSN-637

FIRST IN HER CLASS

KEEL LAID	**AUGUST 10, 1963**
LAUNCHED	**FEBRUARY 26, 1966**
COMMISSIONED	**MARCH 3, 1967**
SPONSORED BY	**MRS. EVERETT DIRKSON**
LENGTH	**292 FEET**
BEAM	**32 FEET**
DISPLACEMENT	**4250 TONS**
SPEED	**IN EXCESS OF 20 KNOTS**
DEPTH	**IN EXCESS OF 400 FEET**

GENERAL INFORMATION

Welcome aboard the USS STURGEON! We hope your visit on board our fine ship is both enjoyable and informative. Do not hesitate to ask your escort any questions you may have. You will find the crew members eager to assist you in any way they can.

RADIATION SAFETY

You will receive no measurable radiation exposure during your tour of the ship forward of the engineering spaces. Observe and remain clear of all designated radiation areas. These areas are clearly marked with yellow and magenta signs, ropes or ribbons.

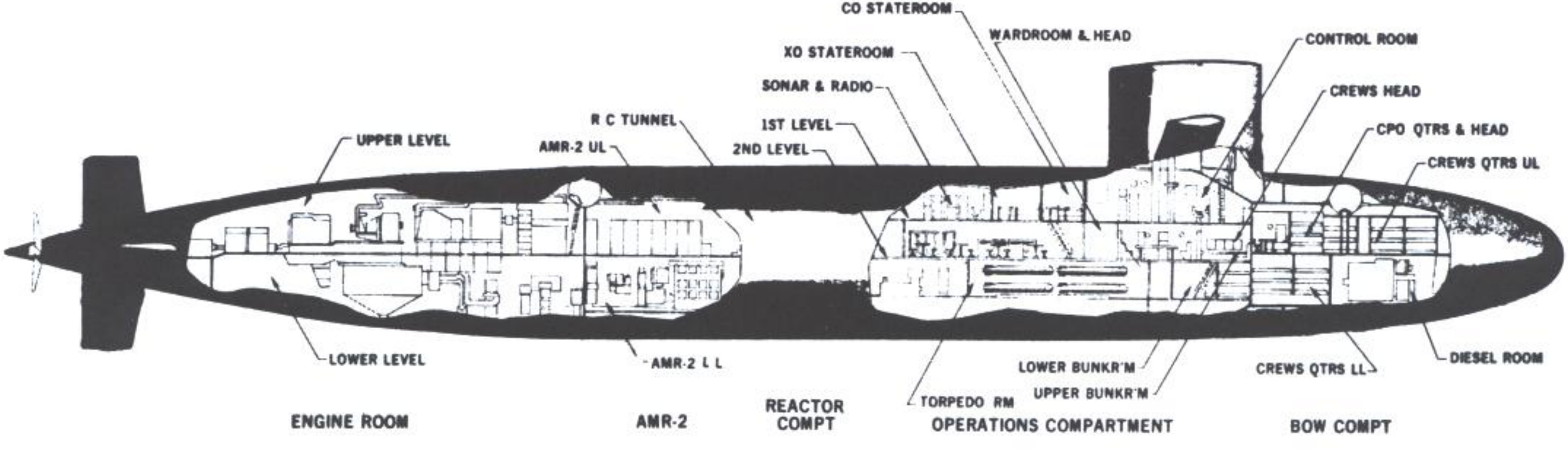
CAUTION

Do not operate any switches, valves or equipment. Improper operation of the ship's systems can result in personnel injury and equipment damage. Your escort or other members of the crew will assist you with any questions or difficulties you have.

SECURITY

Most features of the ship are classified. Information concerning speed, depth, weapons, fire control, sonar, ECM and the propulsion plant cannot be discussed. Only authorized personnel are permitted in certain security areas including Sonar Control, Radio, ECM Room, Nucleonics Laboratory and the Engineering Spaces.

SHIP'S DIAGRAM



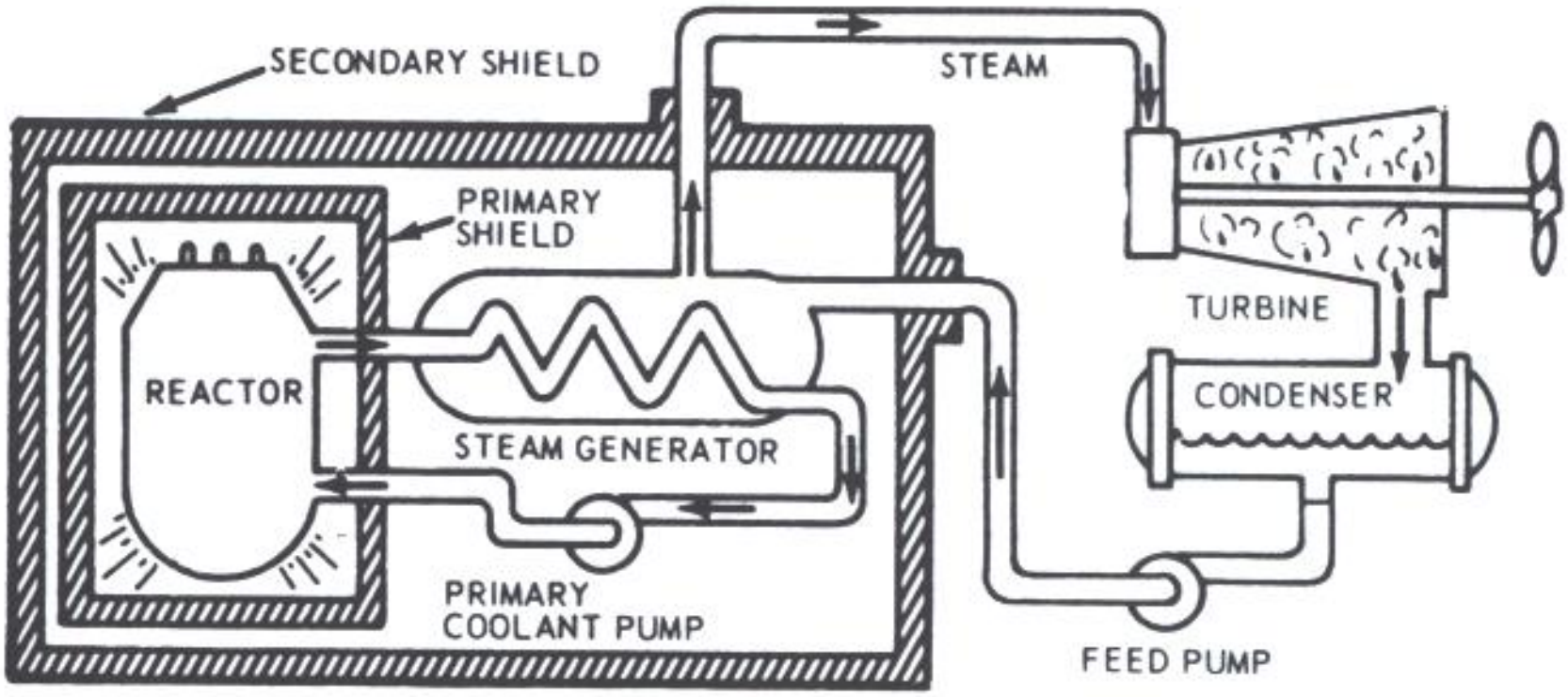
THE POWER PLANT

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 electric power.

The primary system is a circulating water cycle and consists of the reactor, 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 with 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 or 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 a submerged patrol than he would receive from natural sources ashore.

HISTORY OF USS STURGEON (SSN 637)

USS STURGEON (SSN 637) is the third ship of the line to bear the name STURGEON and is the lead ship of the STURGEON class of nuclear attack submarines.

USS STURGEON is named for a tough-skinned family of large fish that are an important source of caviar and isinglass. The STURGEON has a bony-plated elongated body, a shark-like tail, and adapts itself to either salt or fresh water. It is widely distributed on both the Atlantic and Pacific coasts, in the Mississippi Valley and in the Great Lakes regions.

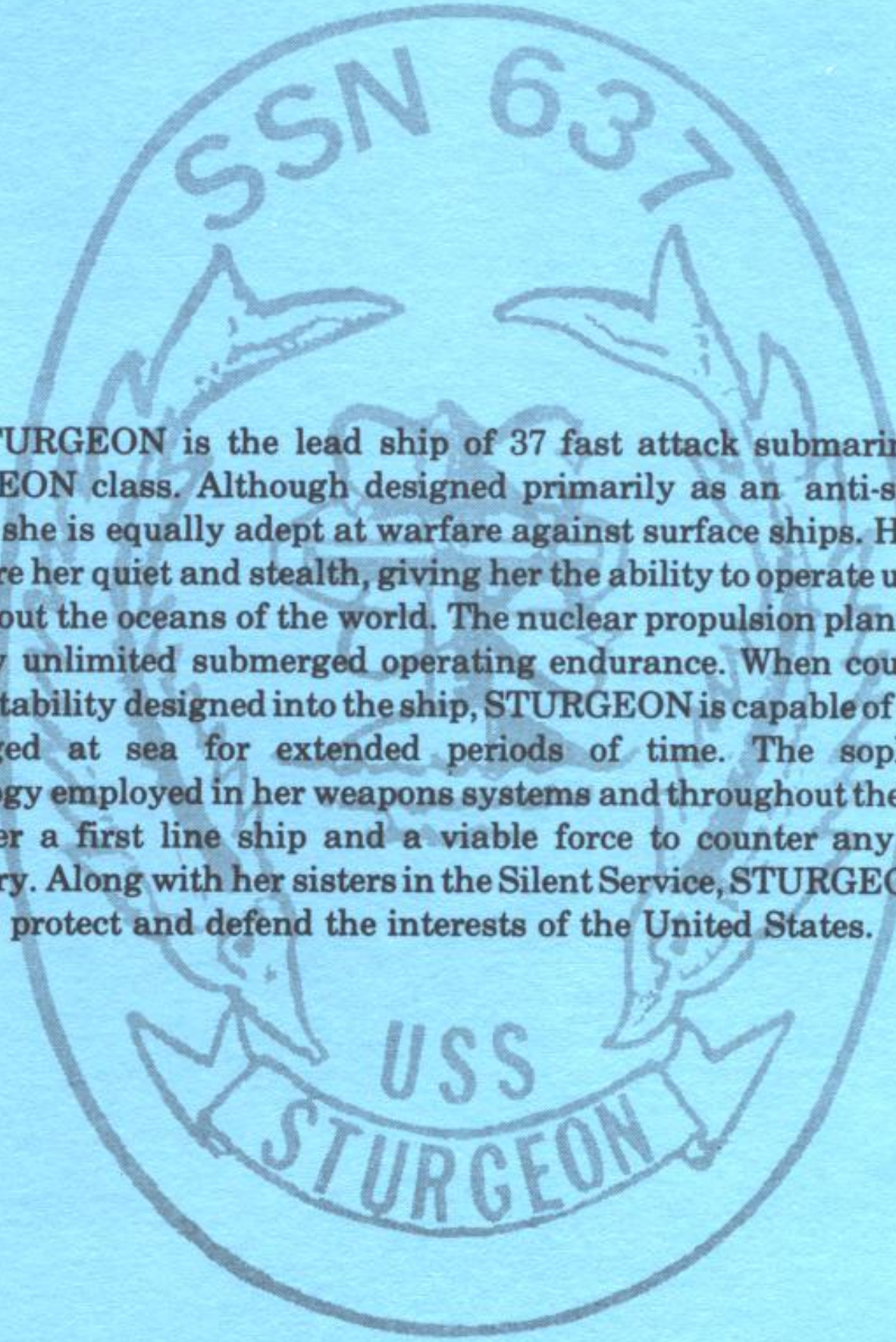
The first STURGEON (SS-25) was built by the Fall River Shipbuilding Company, in Quincy, Massachusetts. She was renamed E-2 and commissioned under the command of Ensign Clarence N. Hinkamp in February of 1912. As a unit of the Atlantic Submarine Flotilla, STURGEON completed four war patrols off Cape Hatteras, helping guard the entrance to Chesapeake Bay. She was commended by the Chief of Naval Operations for two of these patrols. STURGEON was decommissioned in October 1921.

The second STURGEON (SS-187) was built by the Mare Island Navy Yard, Vallejo, California. She was commissioned 25 June 1938 under the command of Lt. Arthur D. Barnes, USN. STURGEON had just arrived as a unit of Squadron TWO of the Asiatic Fleet when the Japanese made their attack on Pearl Harbor. STURGEON made a total of eleven war patrols and was responsible for sinking 41,350 tons of enemy shipping. She received ten battle stars for these patrols. She was decommissioned at Boston Navy Yard in November 1945 and was struck from the Navy list in 1948.

The keel of USS STURGEON (SSN 637) was laid on 10 August 1963 at Electric Boat Division of General Dynamics Corp., Groton, Connecticut. STURGEON was launched on 26 February 1966 under the sponsorship of Mrs. Everett McKinley Dirkson, wife of U. S. Senate Minority Leader Dirkson of Illinois.

STURGEON was placed in commission on 3 March 1967. Dr. Glen T. Seaborg, Chairman of the U. S. Atomic Energy Commission, delivered the commissioning address, stressing the importance of nuclear power in both its military and civilian aspects. STURGEON operated as a unit of Submarine Squadron TEN and Submarine Development Group TWO prior to being transferred to Submarine Squadron FOUR homeported in Charleston, South Carolina, in June 1976.

STURGEON combines the endurance and environmental independence of nuclear power with deep submergence, high speed, quietness and the most advanced electronics and weapons capabilities. These characteristics make her one of the Navy's most effective anti-submarine warfare weapons.



USS STURGEON is the lead ship of 37 fast attack submarines of the STURGEON class. Although designed primarily as an anti-submarine weapon she is equally adept at warfare against surface ships. Her largest assets are her quiet and stealth, giving her the ability to operate undetected throughout the oceans of the world. The nuclear propulsion plant provides virtually unlimited submerged operating endurance. When coupled with the habitability designed into the ship, STURGEON is capable of operating submerged at sea for extended periods of time. The sophisticated technology employed in her weapons systems and throughout the ship help make her a first line ship and a viable force to counter any potential adversary. Along with her sisters in the Silent Service, STURGEON stands ready to protect and defend the interests of the United States.


UNITED STATES SHIP
STURGEON
(SSN637)