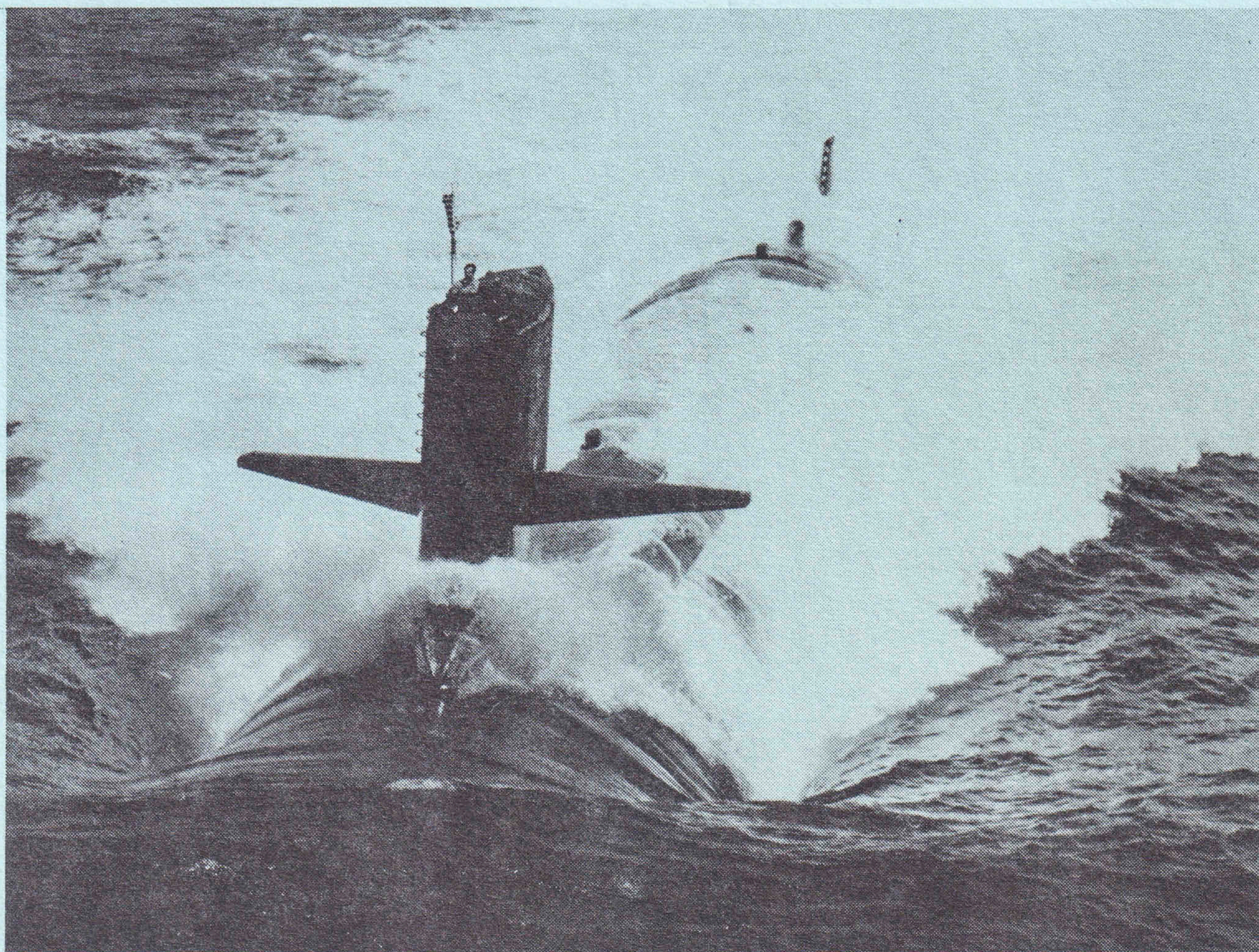
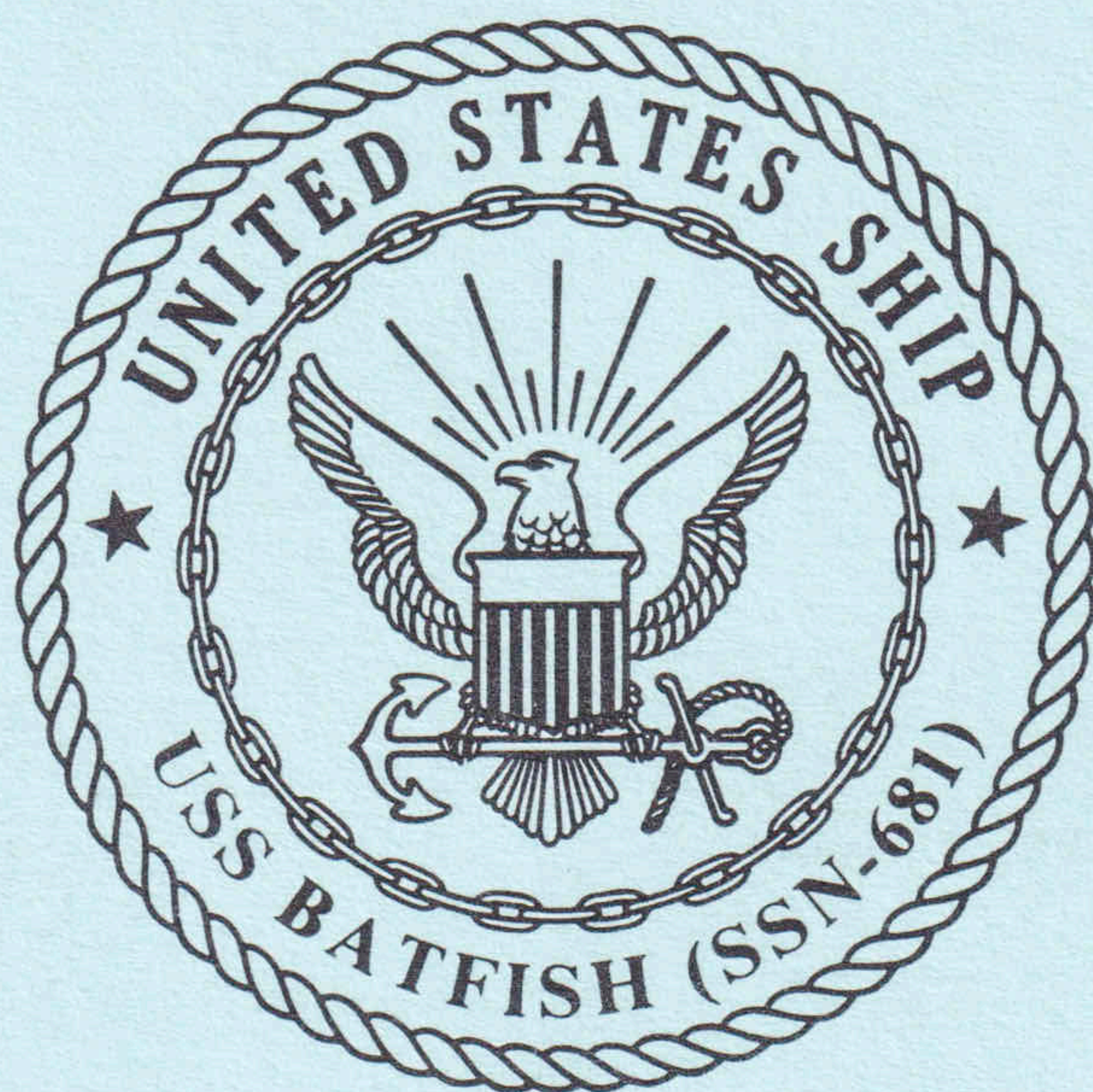


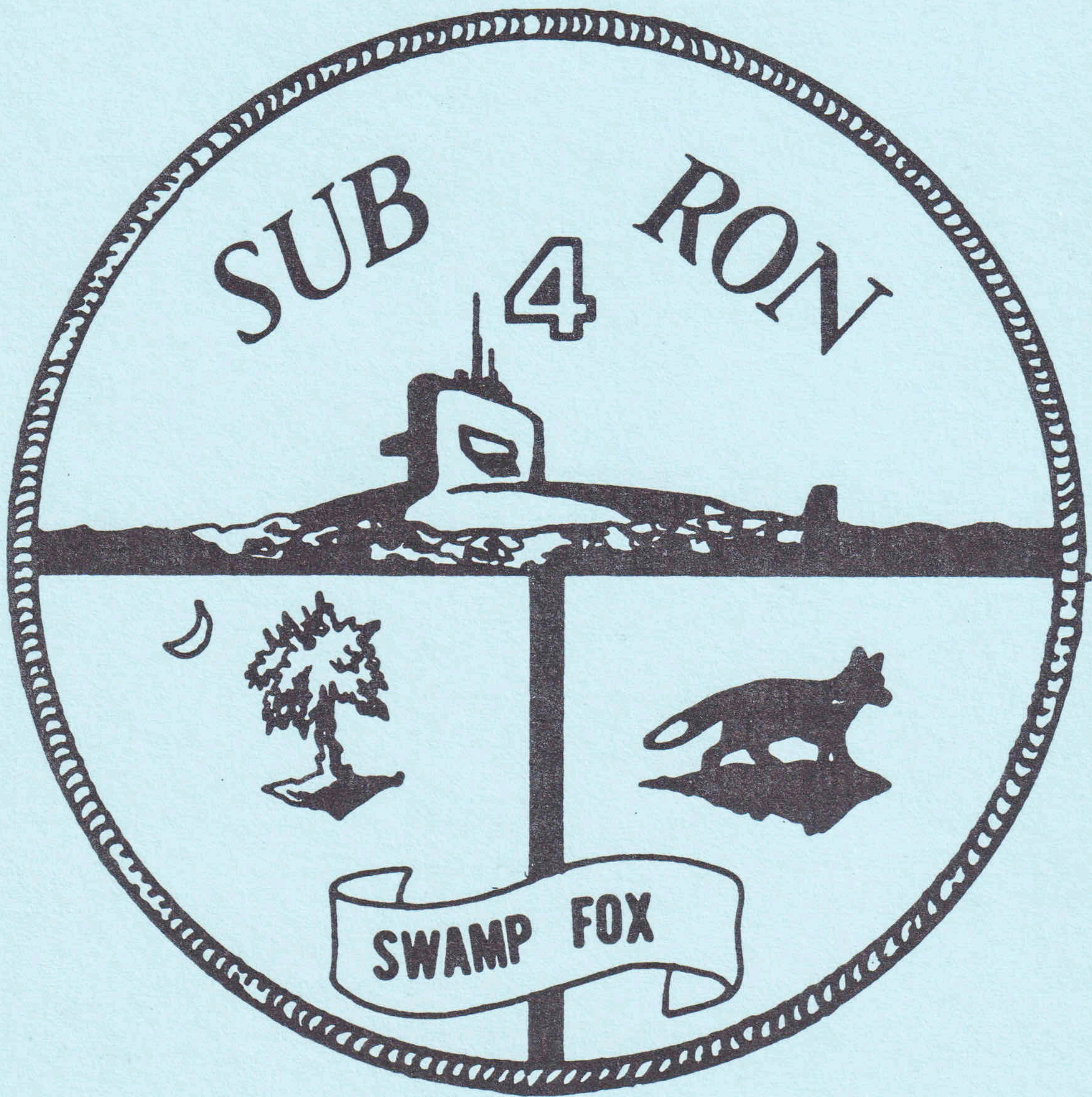
# WELCOME ABOARD



## USS BATFISH SSN-681



# Submarine Squadron FOUR





## THE SHIP

USS BATFISH (SSN-681) is a nuclear powered submarine of the STURGEON Long Hull Class, especially designed as an anti-submarine platform. BATFISH has a length of 300 feet, beam of 32 feet, displaces 5000 tons, and is capable of speeds in excess of 20 knots and depth in excess of 400 feet. BATFISH is manned by a crew of 120 officers and men.

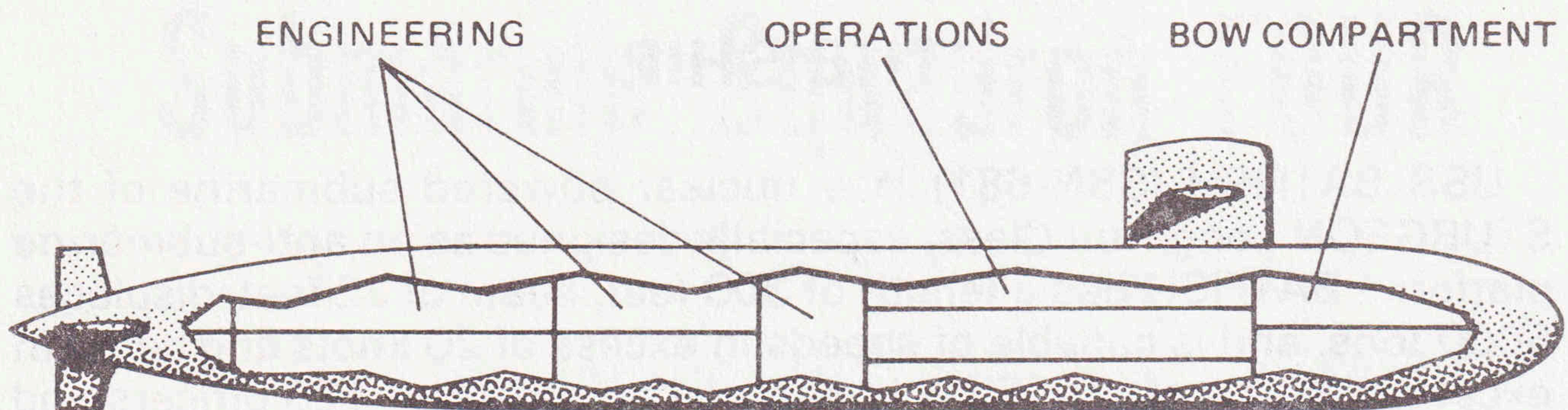
BATFISH is named for the former USS BATFISH (SS-310), which sank three enemy submarines in four days during World War II and received the Presidential Unit Citation and 9 battle stars.

BATFISH was built by the Electric Boat division of General Dynamics Corporation in Groton, Connecticut. Her keel was laid on 9 February 1970, and she was launched and christened on 9 October 1971, under the sponsorship of Mrs. Arthur F. Gralla. BATFISH was commissioned on 1 September 1972, and was assigned to Submarine Squadron FOUR, homeported in Charleston, South Carolina.

BATFISH has continued the traditions of her namesake. The ship has held numerous Submarine Squadron FOUR annual awards including the Battle Efficiency "E", Engineering Red "E", Supply "E", Communications "C", and ASW "A" awards. BATFISH has been awarded several unit awards for independent submarine operations of vital importance to the National Defense including one Meritorious Unit Commendation and three Navy Unit Commendations. BATFISH has recently conducted several deployments of substantial importance to the national interest, including a 1983 Mediterranean deployment and 1984 and 1985 North Atlantic deployments.

In addition to the successful deployments, BATFISH has made significant contributions to submarine technical and development programs. She was the first ship to participate in the Submarine Extended Overhaul Cycle (SEOC) Program, and was the prototype platform for the revolutionary Submarine Satellite Information Exchange System (SSIXS) as well as several other sophisticated new systems.





## COMPARTMENTATION

**ENGINEERING** - These spaces provide room for the pressurized-water type nuclear reactor, the steam turbine generators which produce electrical power, and propulsion turbines which drive the ship. The propulsion turbines are accompanied by reduction gears which transmit the power to the shaft, ultimately turning the screw to give motion to the ship. The engineering spaces are filled with complex electrical and fluid systems which support the main and auxiliary components of the propulsion plant.

**OPERATIONS** - This area, between the bow compartment and engineering spaces, provides space for navigational equipments, ship control, and various habitability areas. The radio room, sonar room, officers' staterooms, wardroom, and ship's offices are located here. The lower level of the operations compartment is primarily occupied by the torpedo room.

**BOW COMPARTMENT** - This portion of the ship is primarily a habitability space and includes most of the crew's berthing. Quarters for the chief petty officers are found here, and a small machinery space houses the auxiliary diesel generator.



## THE POWER PLANT

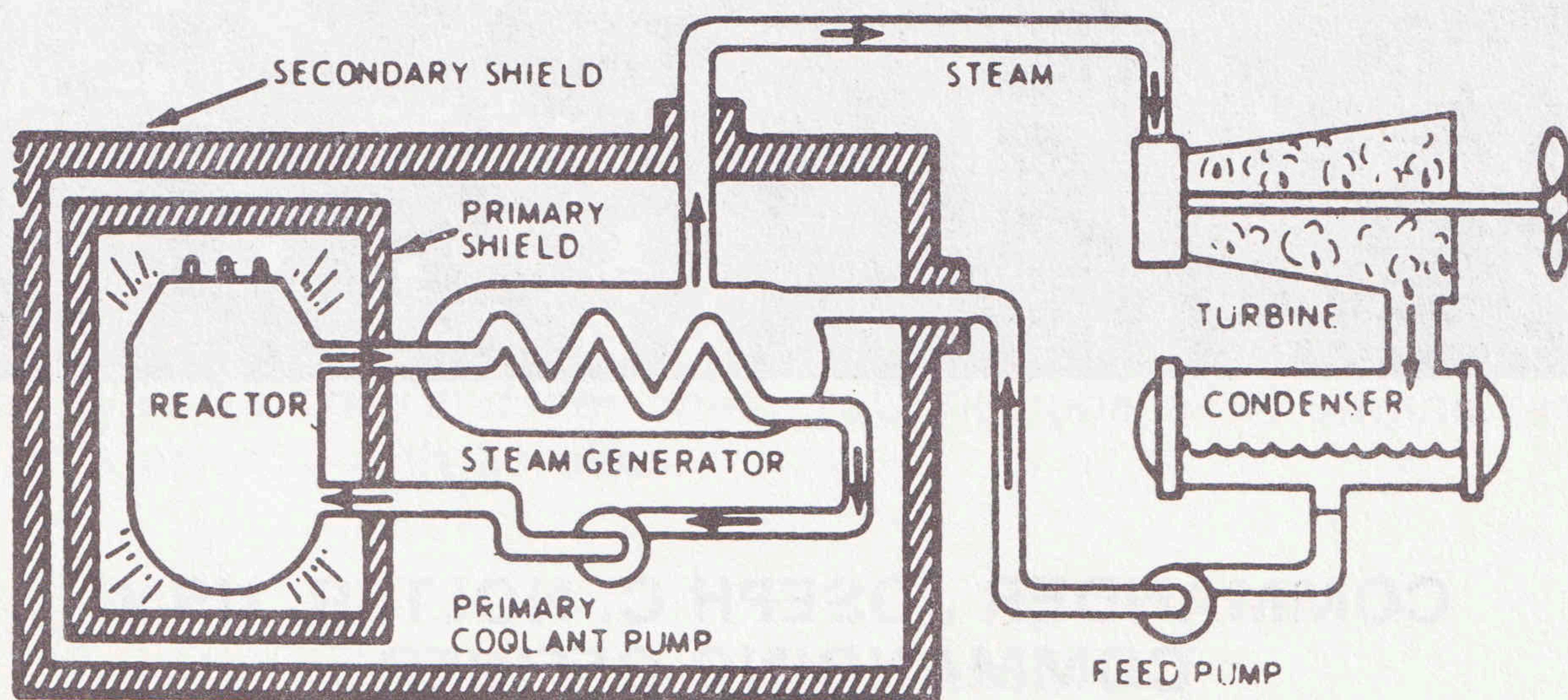
The propulsion plant of a nuclear powered ship is based upon use of a nuclear reactor to provide heat. The heat comes from the fissioning of nuclear fuel contained within the reactor. Since the fissioning process also produces radiation, shields are placed around the reactor so that the crew is protected.

The nuclear propulsion plant in this ship uses a pressurized water reactor design which has two basic systems: the primary system and the secondary system. The primary system circulates ordinary water and consists of the reactor, piping loops, pumps and steam generators. The heat produced in the reactor is transferred to the water under high pressure so it does not boil. This water is pumped through the steam generators and back into the reactor for reheating.

In the steam generators, the heat from the water in the primary system is transferred to the secondary system to create steam. The secondary system is isolated from the primary system so that the water in the two systems does not intermix.

In the secondary system, the steam flows from the steam generators to drive the turbine generators, which supply the ship with electricity, and to the main propulsion turbines, which drive the propeller. After passing through the turbines, the steam is condensed into water which is fed back to the steam generators by the feed pumps. Thus, both the primary and secondary systems are closed systems where water is recirculated and reused.

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







**COMMANDER JOSEPH C. NOLTER, USN  
COMMANDING OFFICER  
USS BATFISH (SSN-681)**



## COMMANDER JOSEPH C. NOLTER, USN

Commander Joseph Charles Nolter was born and raised in Mahanoy City, Pennsylvania. He graduated with distinction from the United States Naval Academy in 1968. His first assignment was duty under instruction at Stanford University where, working as an Atomic Energy Commission Special Fellow, he earned a Master of Science degree in Nuclear Engineering in 1969. Commander Nolter was then selected for the nuclear propulsion program and completed courses of instruction at Mare Island, California, and Idaho Falls, Idaho.

In December 1970, Commander Nolter reported to his first nuclear powered submarine, USS BLUEFISH (SSN-675). During this assignment, he qualified in Submarines and as Engineer Officer. In July 1974, he reported as the Executive Officer of SUBMARINE NR-1 and served in that assignment for the next 40 months. Commander Nolter then attended the Submarine Officers Advanced Course and, in April 1978, reported as the Operations Officer and Navigator on board USS L. MENDEL RIVERS (SSN-686).

In October 1979, Commander Nolter reported to the Naval Nuclear Power School, Orlando, Florida, and served as the Director of the Officer Training Department. In January 1982, Commander Nolter reported as Executive Officer, USS NATHAN HALE (SSBN-623) (BLUE) and completed six POSEIDON deterrent patrols. He remained in this assignment until April 1985, when he commenced Prospective Commanding Officer Training. Commander Nolter assumed command of USS BATFISH (SSN-681) on 20 December 1985.

Commander Nolter has been awarded the Navy Commendation Medal with three gold stars and the Navy Achievement Medal. He is authorized to wear the Navy Unit Commendation Ribbon, the Meritorious Unit Commendation Ribbon with one star, the Navy Expeditionary Medal with one star, the National Defense Service Medal, the Battle Efficiency "E" Ribbon and Sea Service Ribbon. He is also authorized to wear the SSBN Deterrent Patrol Insignia and the Deep Submergence Insignia.

Commander Nolter is married to the former Lois Shaner of Maple Hill, Pennsylvania. They and their children, Christopher and Suzanne, reside in Charleston, South Carolina.



