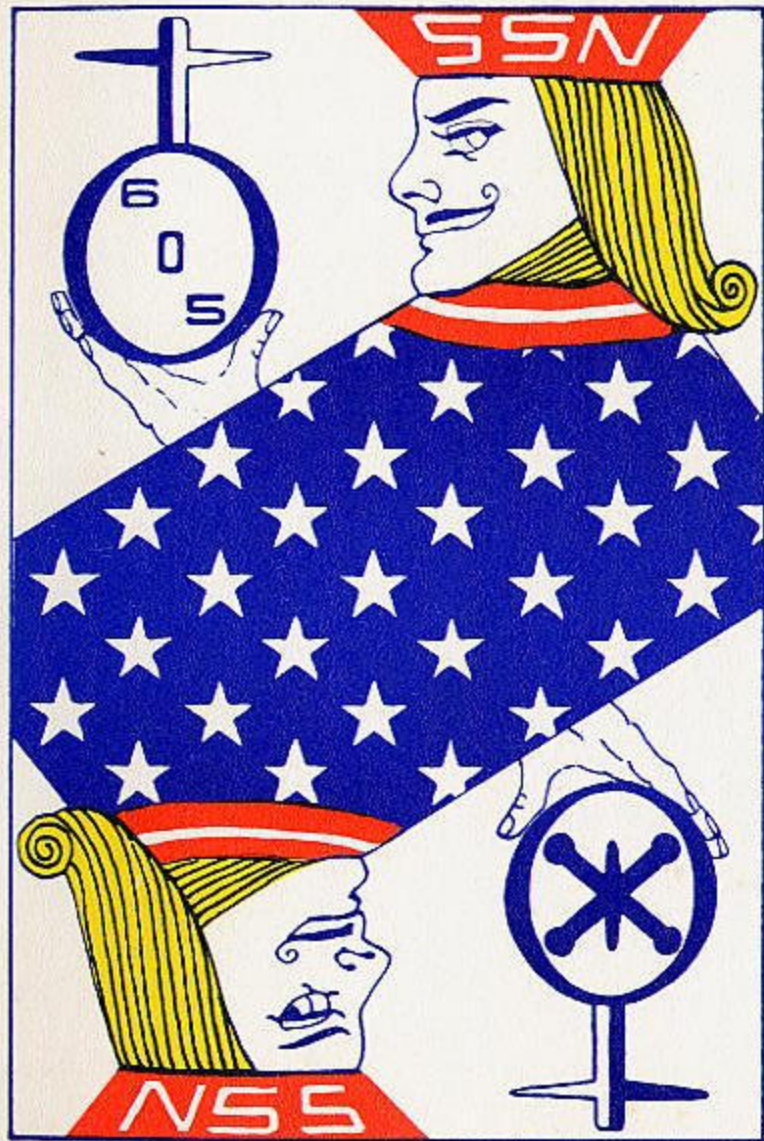


USS JACK



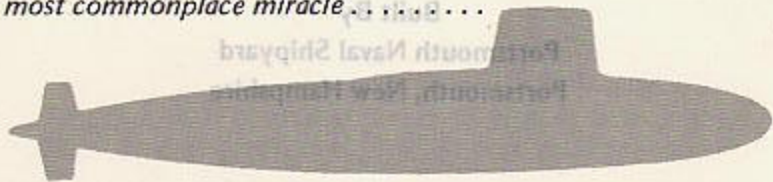
USS JACK

WELCOME ABOARD

## THE NUCLEAR SUBMARINE

USS JACK 22N-602

*A most commonplace miracle . . . . .*



A ship that can sail more than 100,000 miles without refueling; a ship that can cruise swiftly, silently and unseen, deep under the surface, for months on end.

A most commonplace miracle — today — made possible by the controlled power of the atom. The nuclear ship has revolutionized naval strategy. The atomic powered ship can sail and fight almost indefinitely without dependence on land bases.

When the nuclear sailor steps from his sealed environment after a 60 to 90 day patrol, he is likely to breathe less pure air than that inside the vessel he has just left. Even living next to a nuclear reactor for long periods, crewmen are exposed to more radiation ashore than on a nuclear submarine.

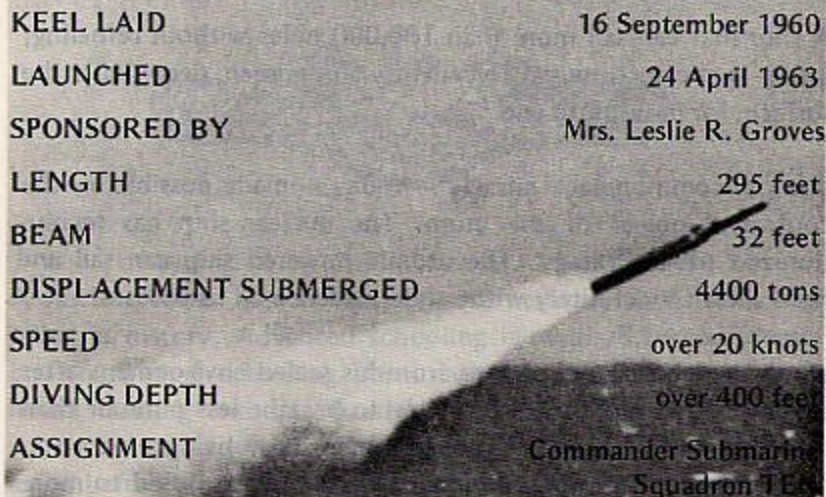
The crew's comforts include movies, libraries and fresh-water showers. The men of the submarine service still claim they get the best food in the Navy.

Typical menus include such things as Shrimp Newburg, Beef Stroganoff, Fresh Maine Lobster, in addition to such staples as roast beef or steak. Food consumption on a 60 day patrol can include 2500 pounds of beef, 1000 pounds of sugar, 1000 pounds of coffee, 600 pounds of chicken, 600 pounds of ham, 1500 pounds of flour, and 900 pounds of butter.



## USS JACK SSN-605

Built By  
Portsmouth Naval Shipyard  
Portsmouth, New Hampshire



KEEL LAID	16 September 1960
LAUNCHED	24 April 1963
SPONSORED BY	Mrs. Leslie R. Groves
LENGTH	295 feet
BEAM	32 feet
DISPLACEMENT SUBMERGED	4400 tons
SPEED	over 20 knots
DIVING DEPTH	over 400 feet
ASSIGNMENT	Commander Submarine Squadron T-ES

### SUBROC

A submarine-launched underwater-to-underwater antisubmarine weapon is shown as it bursts out of the water and heads toward the target area. SUBROC is armed with a nuclear warhead.

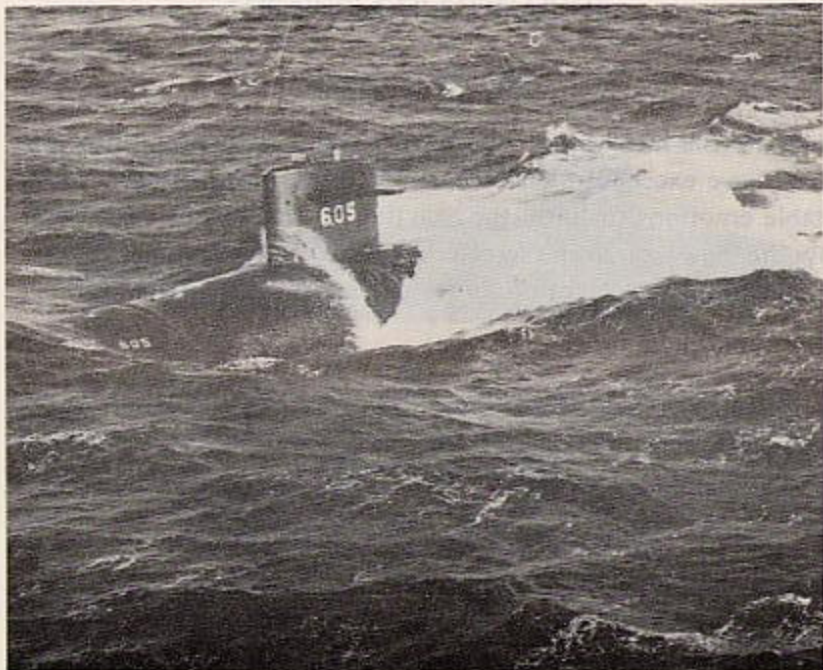
Who are the men who man JACK? Recruit or veteran, the crew must have excellent physical qualifications, high intelligence and stable emotions to fulfill the exacting demands made upon them by the new conditions created by the fact of nuclear power. They are volunteers, carefully screened, tested and trained.



A nuclear sailor has to know more, perhaps, than any other sailor in history. Advanced schooling is required for every man on board—and schooling continues through his career. On-board training and qualification is difficult and intense—most watchstations require a minimum of 4 to 6 months of experience before a man is qualified. Total qualification in the entire ship requires a year before a man is designated “Qualified in Submarines”.

The amount of systems and equipments on the nuclear submarine is staggering. But a ship at sea must be able to repair its electronic gear, or its nuclear propulsion, armament, and other systems at any time solely within its own crew and from its own stores.

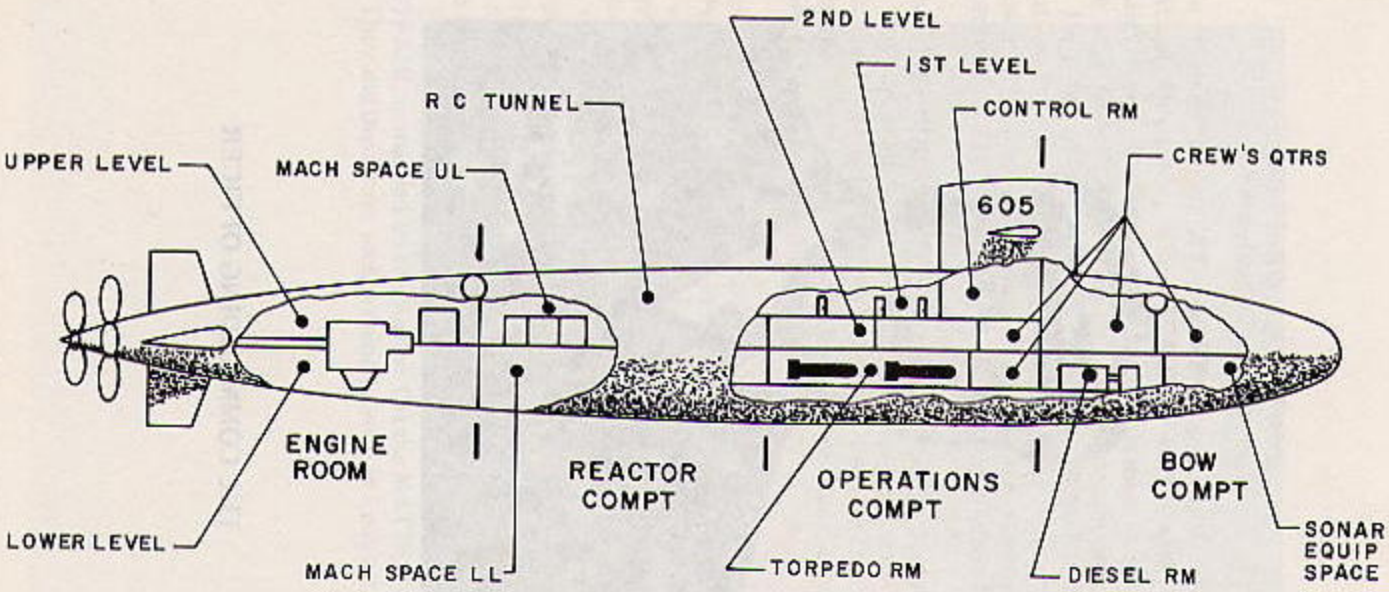
Nuclear submariners must be fully ready to do their own special important job yet equally trained to carry on other vital functions as part of a team on which each man's safety depends on all his fellows.



## USS JACK

USS JACK (SSN-605) is a nuclear powered attack submarine of the "PERMIT Class", especially designed as an anti-submarine weapon. She combines the endurance and environmental independence of nuclear power with deep submergence and high speed. These capabilities, coupled with the latest in submarine weapons systems, including nuclear tipped and rocket propelled torpedoes, make JACK one of the Navy's most effective anti-submarine weapons. Super-quiet, deep-diving, and swift, JACK is also very lethal to hostile surface shipping. But she is especially suited as a "killer submarine" vitally concerned with denying the effectiveness of a hostile underseas fleet.







THE COMMANDING OFFICER

RICHARD K. WESTFAHL  
Commander, United States Navy

Commander Richard K. WESTFAHL is the son of Mr. and Mrs. W.E. WESTFAHL of Milwaukee, Wisconsin. CDR. WESTFAHL attended the United States Naval Academy and, after graduation in 1959, he served aboard the USS EDSON (DD 946) as First Lieutenant and ASW Officer. In March 1961 he entered Officers Submarine School in New London, Connecticut and then in March 1962 graduated from the Advanced Nuclear Power School in New London. He was then assigned to the A1W reactor prototype at the Nuclear Power Training Unit in Idaho Falls, Idaho.

In December 1962 CDR. WESTFAHL reported to USS SHARK (SSN 591) where he was designated "Qualified in Submarines" and "Qualified as Engineer Officer of a Nuclear Powered Ship" in 1965. In December 1965 he reported as the Engineer Officer of the commissioning crew of the USS GATO (SSN 615) in Quincy, Massachusetts.

After commissioning and shakedown of GATO, CDR. WESTFAHL entered the Naval Post Graduate School in Monterey, California in August 1968 and graduated with honors two years later with a Master of Science degree in Oceanography. From December 1970 until January 1974 he served as Executive Officer of USS GEORGE C. MARSHALL (SSBN 654). After making one patrol on the Blue Crew he became Executive Officer of the combined crews during the ship's overhaul and POSIEDON conversion at Puget Sound Naval Shipyard, Bremerton, Washington. After the overhaul and shakedown period, he made one patrol as the Gold Crew Executive Officer. In June 1974 he reported to USS JACK (SSN 605) for duty as Commanding Officer.

CDR. WESTFAHL is married to the former Dianne MATTER of Milwaukee, Wisconsin. They and their three sons presently reside in Ledyard, Connecticut.



## HISTORY OF UNITED STATES SHIP JACK

The USS JACK (SSN-605) is the second ship of the fleet to bear the name. She is named in commemoration of the fleet submarine JACK (SS-259) which was awarded the Presidential Unit Citation and seven battle stars for outstanding service in nine Pacific war patrols during World War II.

JACK (SS-259) under the command of CDR Thomas M. DYKERS, won the name of "The Tanker Killer" during her third war patrol, when she ran into a convoy of five large tankers and succeeded in sinking four of them, (both the Japanese and Capt. DYKERS say five) all on 19 February 1944. This feat was unequalled by any other U. S. Submarine in the war. At the wars end JACK stood in the top ten of the list of tonnages sunk by individual submarines with 76,887 tons to her credit.

USS JACK (SSN-605) was commissioned at Portsmouth on 31 March 1967, CDR Louis T. URBANCZYK, Jr., Commanding. Principal speaker at the ceremony was Rear Admiral James CALVERT, USN, who served with distinction in the Pacific in World War II on USS JACK (SS-259). He participated in nine submarine war patrols and during his three years aboard served in every capacity except that of Commanding Officer.

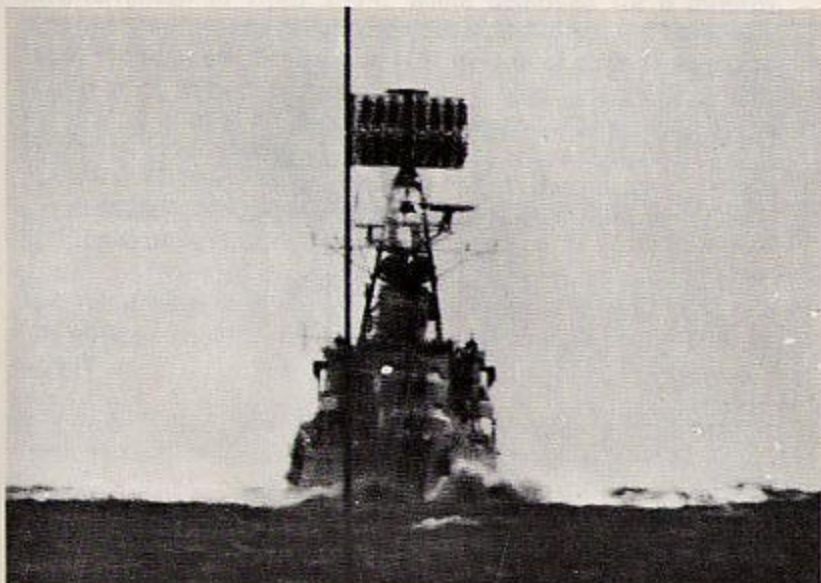
USS JACK (SSN-605) was assigned to Commander Submarine Squadron TEN, homeported at New London, Connecticut. After a shakedown cruise in the Caribbean, JACK took her place in the operating fleet.

After participating in several fleet exercises JACK very successfully demonstrated the versatility of a modern nuclear submarine during an important NATO exercise, "SILVER TOWER" in October 1968. At the conclusion of SILVER TOWER, having opposed both replenishment groups and a large fast carrier task force, JACK claimed a simulated tonnage of 319,000 tons.

During the summer months JACK participated in interesting exercises with helicopters and fixed-wing aircraft from Commander Anti-Submarine Forces Atlantic. An additional assignment involved the evaluation of a warshot torpedo. The target was the WW II Destroyer Escort Ex-USS SNOWDEN (DE-246).

After an extensive training and readiness period of Preparation of Overseas Movement, JACK departed for an extended independent submarine operations. Subsequent to this operation the Secretary of the Navy presented the MERITORIOUS UNIT COMMENDATION to USS JACK (SSN-605). In addition the Commanding Officer, CDR David G. SMITH was presented the MERITORIOUS SERVICE MEDAL by the President of the United States.

In December 1969 JACK participated in operation "SQUEEZE PLAY", a program established by the CNO to evaluate a dedicated force of ships in certain phases of anti-submarine warfare.



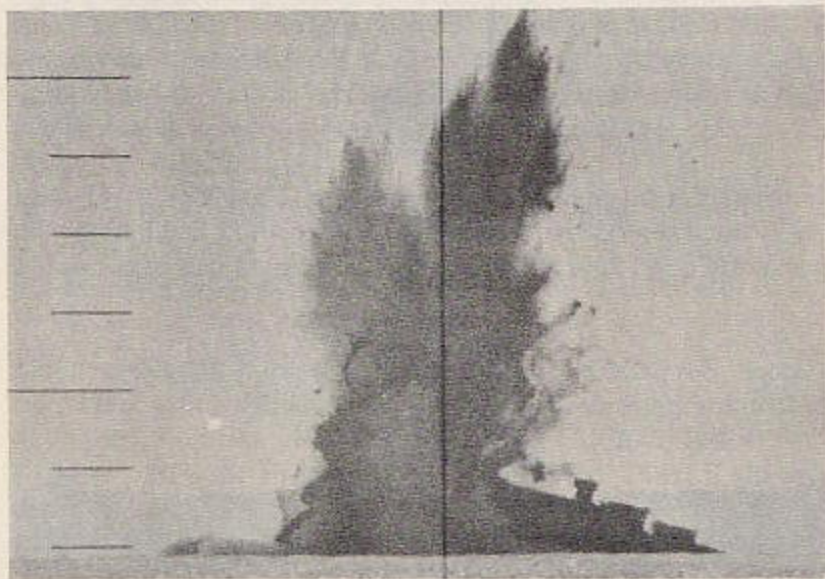


Having gained valuable experience during the high tempo SQUEEZE PLAY, JACK departed home waters in January 1970 on an extended deployment.

During the summer of 1970, JACK was awarded the Battle Efficiency "E" by Commander Submarine Force U. S. Atlantic Fleet. This award for battle readiness was received while JACK was engaged in Midshipman training at the U. S. Naval Academy, in Annapolis, Maryland.

In the Fall of 1970 JACK participated in a scheduled exercise supporting Ballistic Missile Submarine Security. Enroute to New London for a holiday leave period the ship was diverted to perform a special mission for the Chief of Naval Operations. On completion of this highly successful mission the ship returned to New London for a well deserved rest and preparation for overhaul.

In February 1971 the ship entered the Portsmouth Naval Shipyard for a fourteen month regular overhaul. The overhaul completed in April 1972.





Following the overhaul the ship completed its shakedown and refresher training, and began preparation to join Commander SIXTH Fleet for deployed operations. During the Preparation period Commander Thomas F. Wiener relieved Commander David G. Smith as Commanding Officer.

The ship left New London for a six month Mediterranean deployment in July 1972. During the month of August JACK entered the port of La Maddalena, Sardinia. She was the first nuclear powered submarine to utilize the advance base that was being planned there.

After participating in several fleet exercises, including National Week, independent operations, port visits to Taranto and Naples, Italy and Rota, Spain, and an upkeep-period in La Maddalena JACK returned to New London in January 1973.

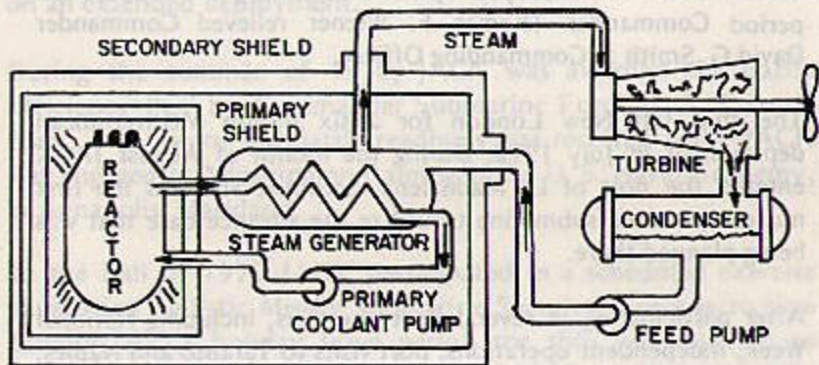
Following a month of post deployment standdown the remainder of 1973 was spent operating with various air, submarine and surface units of the Atlantic Fleet and participating in fleet exercises.

After extensive predeployment training JACK departed for the Mediterranean in April 1974. While deployed for 6 months, port visits were made at Gibraltar, Naples, Athens and La Spezia, Italy. While at sea, NATO and U.S. fleet operations were participated in. Two upkeep periods were held at La Maddalena, Sardinia. During the first of these upkeeps Commander Thomas F. Wiener was relieved by Commander Richard K. Westfahl in the first Change of Command held at the advance base at La Maddalena. On 28 September 1974 JACK returned to New London Connecticut.

The rest of the year was spent in upkeep at New London and operating independently and providing services in the Western Atlantic.

In January 1975, JACK departed New London for 6 weeks of participation in Operation SPRINGBOARD 75 in the Caribbean.

## 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.

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.

After passing through the turbines, which drive the propeller, the steam is condensed and the water is fed back into the steam generators by the feed pumps.

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.



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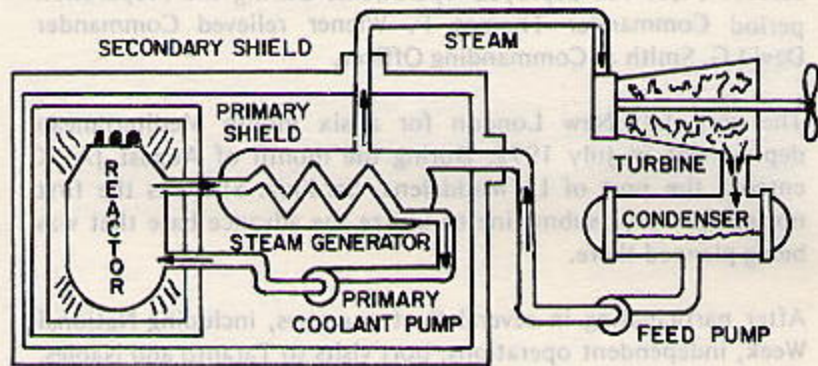
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# THE UNITED STATES NAVY

## *Guardian of Our Country*

The United States Navy is responsible for maintaining control of the sea and is a ready Force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

## *We Serve with Honor*

Tradition, valor, and victory are the Navy's heritage from the past. To these may be added dedication, discipline, and vigilance as the watchwords of the present and future.

At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us. Service to God and Country is our special privilege. We serve with Honor.

## *The Future of the Navy*

The Navy will always employ new weapons, new techniques, and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal, and offensive power are the keynote of the new Navy. The roots of the Navy tie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.