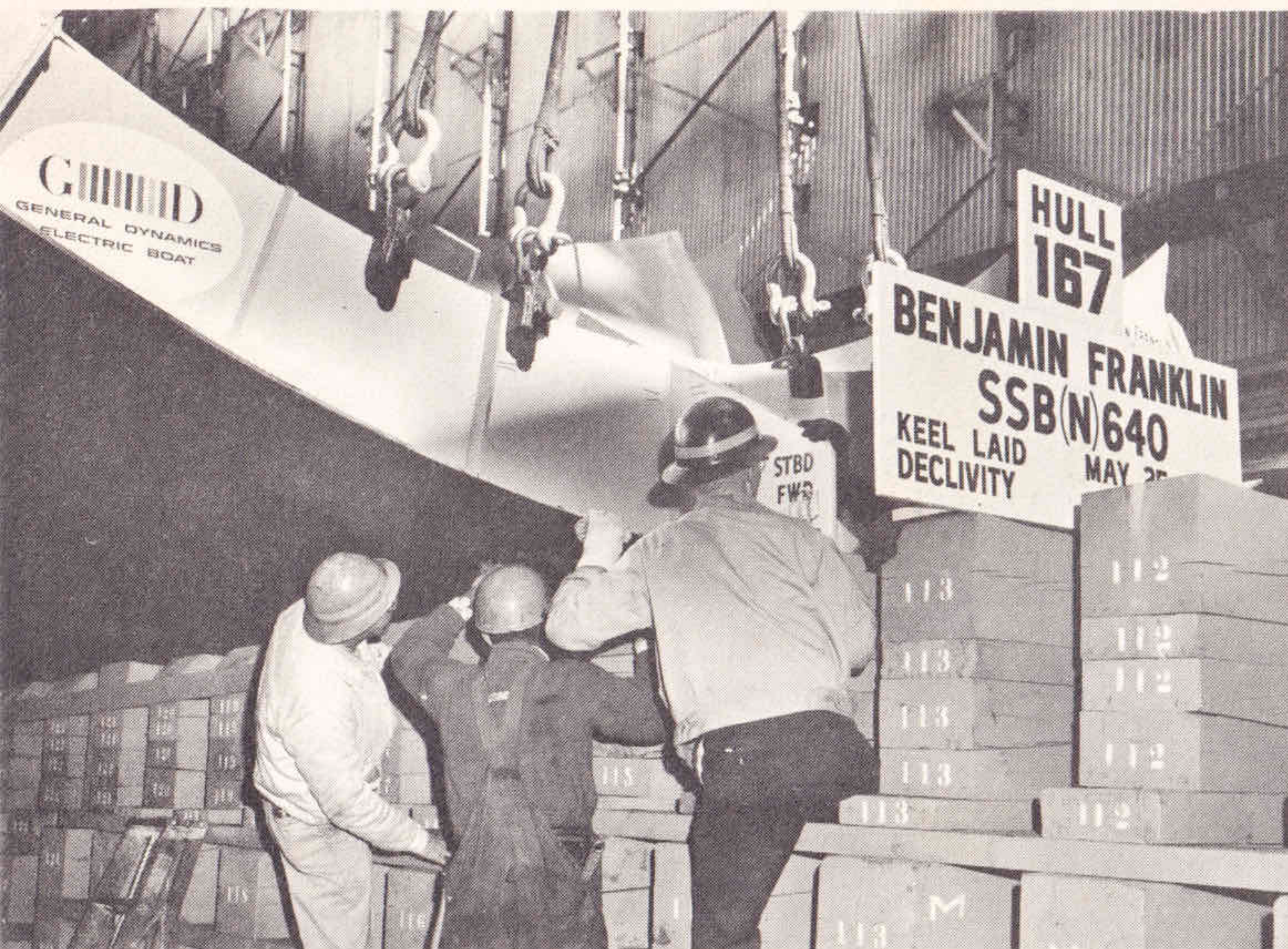






"God grant that not only the love of liberty, but a thorough knowledge of the rights of man may pervade all the nations of the earth, so that a philosopher may set his feet anywhere on its surface, and say, "This is my country!"

KEEL LAYING

25 May 1963



"... in my opinion there never was a good war or a bad peace."

CHRISTENING

5 December 1964



USS BENJAMIN FRANKLIN (SSBN 640)



Built by
Electric Boat Division - General Dynamics Corp.
Groton, Connecticut

Keel Laid: 25 May 1963
Launched: 5 December 1964
Commissioned: 22 October 1965



Co-Sponsors



Mrs. Francis L. Moseley

Mrs. Leon V. Chaplin



Mrs. Francis L. Moseley
Co-Sponsor

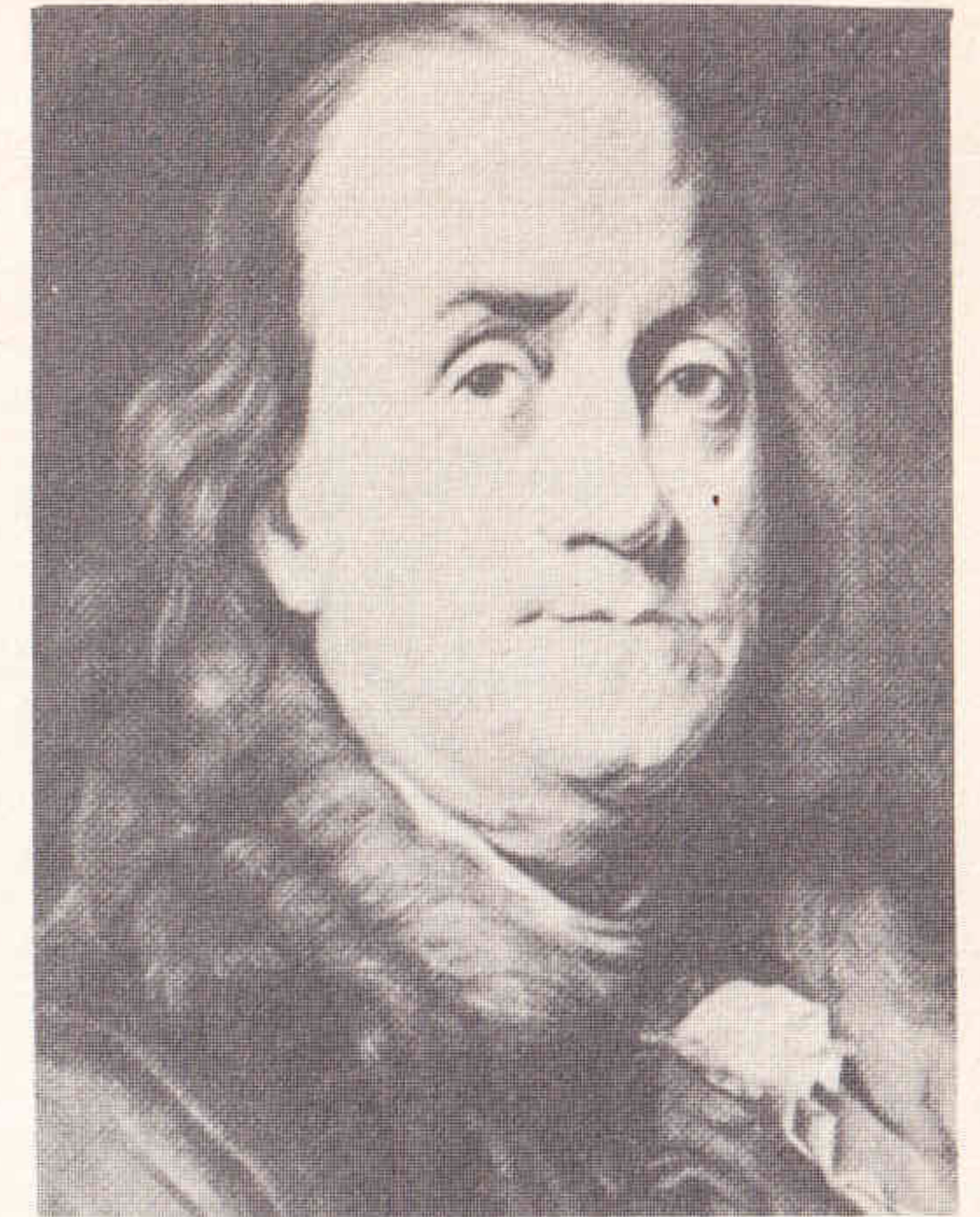


Mrs. Leon V. Chaplin
Co-Sponsor

BENJAMIN FRANKLIN

A businessman who made a fortune by the age of 42, the author of a distinguished autobiography, a scientist who discovered positive and negative electricity, the inventor of bifocals, a diplomat who won vital aid from France for the struggling colonies during the American Revolution—Benjamin Franklin was the Renaissance Man of 18th century America. He was the only American to sign the four documents which established the United States as an independent nation — The Declaration of Independence, the alliance with France, the peace treaty with England, and the Constitution. He was fascinated by the phenomenon of electricity, then considered an entertaining curiosity. To study its effects, he started a series of experiments in his house. From them came one of the most important findings ever made in the field, the discovery of positive and negative electricity.

Benjamin Franklin was a self-taught genius who rose from printer's apprentice to become America's most revered statesman. "As a printer [he] was always better than his competitors . . . as a businessman . . . he was so far superior to competition that he soon dominated the printing trade in Philadelphia." He often worked seven days a week, printing a page a day and redistributing type at night. In 1773 he began to publish *Poor Richard's Almanack*. It became widely popular (some of its proverbs are still quoted) and made him such a fortune that he was able to retire in 1748, proof of his maxim that "God helps them that help themselves."



USS BENJAMIN FRANKLIN (SSBN 640)

The Polaris submarine, BENJAMIN FRANKLIN is the Navy's 52nd nuclear powered submarine and the 30th to join the Polaris submarine fleet. The BENJAMIN FRANKLIN'S first sea trials began on August 29 and were conducted under the direction of Vice Admiral H. G. Rickover, acting for the U. S. Atomic Energy Commission and the U. S. Navy.

Two crews, Blue and Gold, of approximately 125 enlisted men and 13 officers, alternate in taking the ship on 60-day deterrent patrols. The off-duty crew enjoys leave periods and takes refresher training prior to re-deployment.

The ship is 425 feet in length, 33 feet wide and displaces 8,200 tons submerged. Immediately aft of the sail the FRANKLIN carries 16 Polaris A-3 missiles capable of a 2,500-mile range.

In order to provide the maximum crew comfort for long submerged voyages, the ship has 390 tons of air-conditioning equipment. Special atmosphere purification equipment removes irritants from the air and maintains the proper balance of oxygen, carbon dioxide and other atmospheric elements during prolonged submerged periods. Electrolytic oxygen generators permit the submarine to manufacture all of its oxygen from sea water.





CAPTAIN DONALD MARCHAND MILLER, USN

COMMANDING OFFICER - BLUE CREW

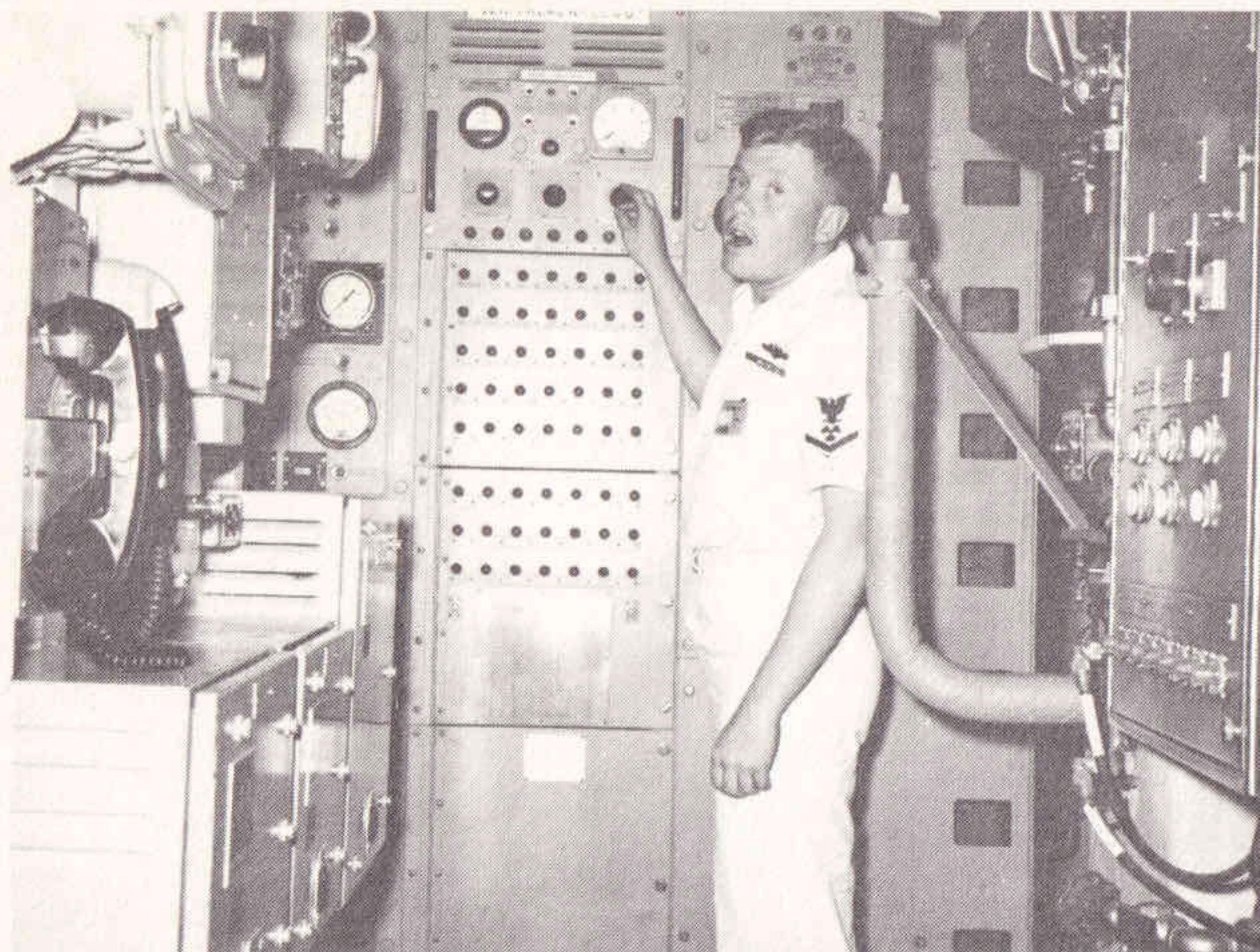
Captain Miller comes from Canton, O., is a veteran of more than 21 years in the Submarine Force. He made war patrols on the USS DARTER and USS ANGLER and after the war served on the submarines MENHADEN, SEA CAT and GRAMPUS. He returned to the MENHADEN as commanding officer in 1956. After a year of instruction in nuclear power he assumed command of the Gold Crew of the USS ABRAHAM LINCOLN and made five Polaris patrols before he was ordered to the BENJAMIN FRANKLIN as prospective commanding officer.

LCDR ROSS N. WILLIAMS, USN

COMMANDING OFFICER - GOLD CREW

LCDR Williams served as executive officer, Blue Crew, of the USS HENRY CLAY prior to reporting as prospective Commanding Officer (Gold) of the BENJAMIN FRANKLIN. He is a native of New York City and since graduation from Submarine School has served on the submarines USS HALFBEAK, USS ALBACORE and in the commissioning detail of the BARBEL prior to assignment to nuclear power training. In addition to the HENRY CLAY he served on board the USS SEAWOLF.





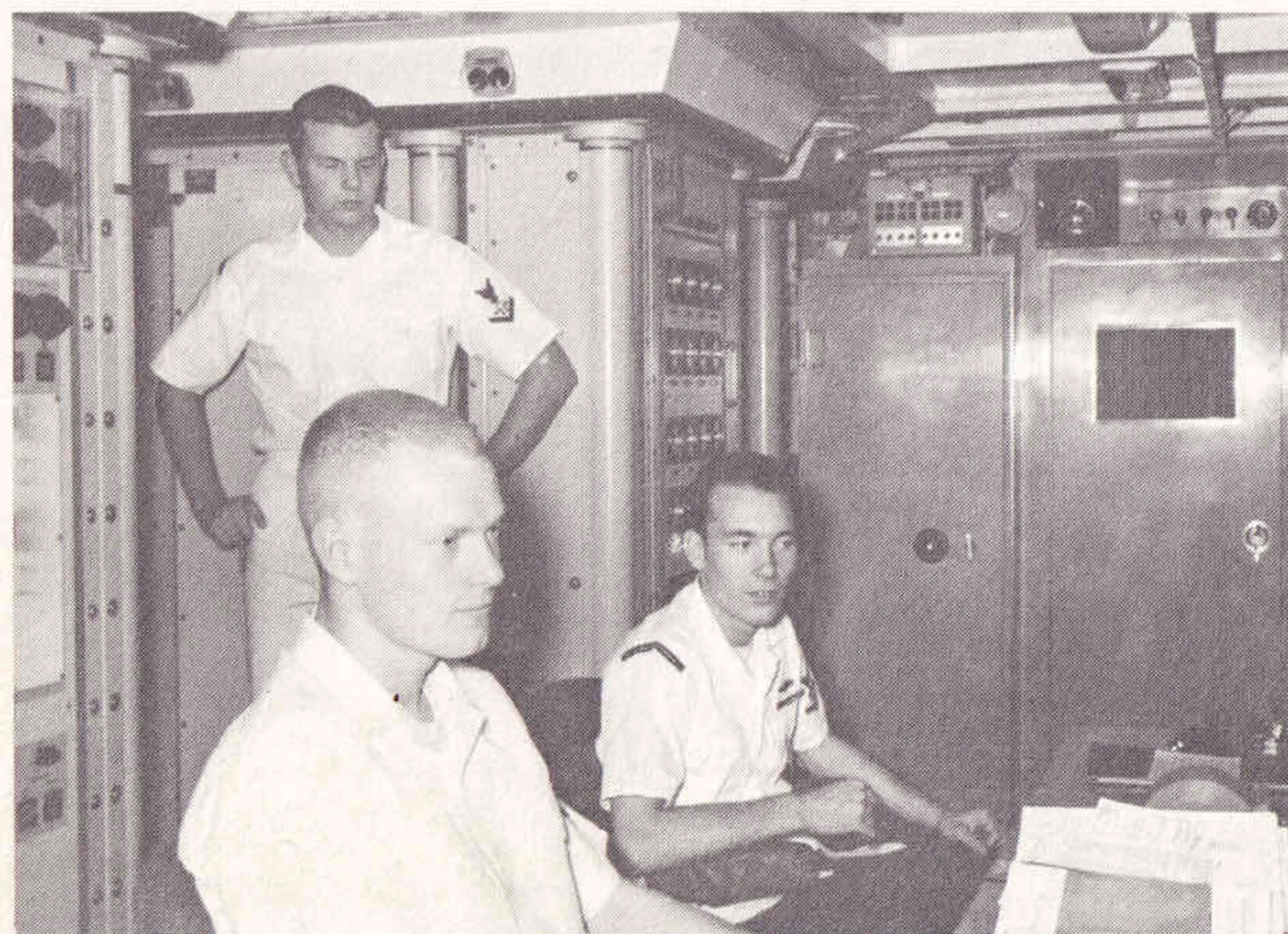
Oxygen Generator-"Increase Forward Bleed."

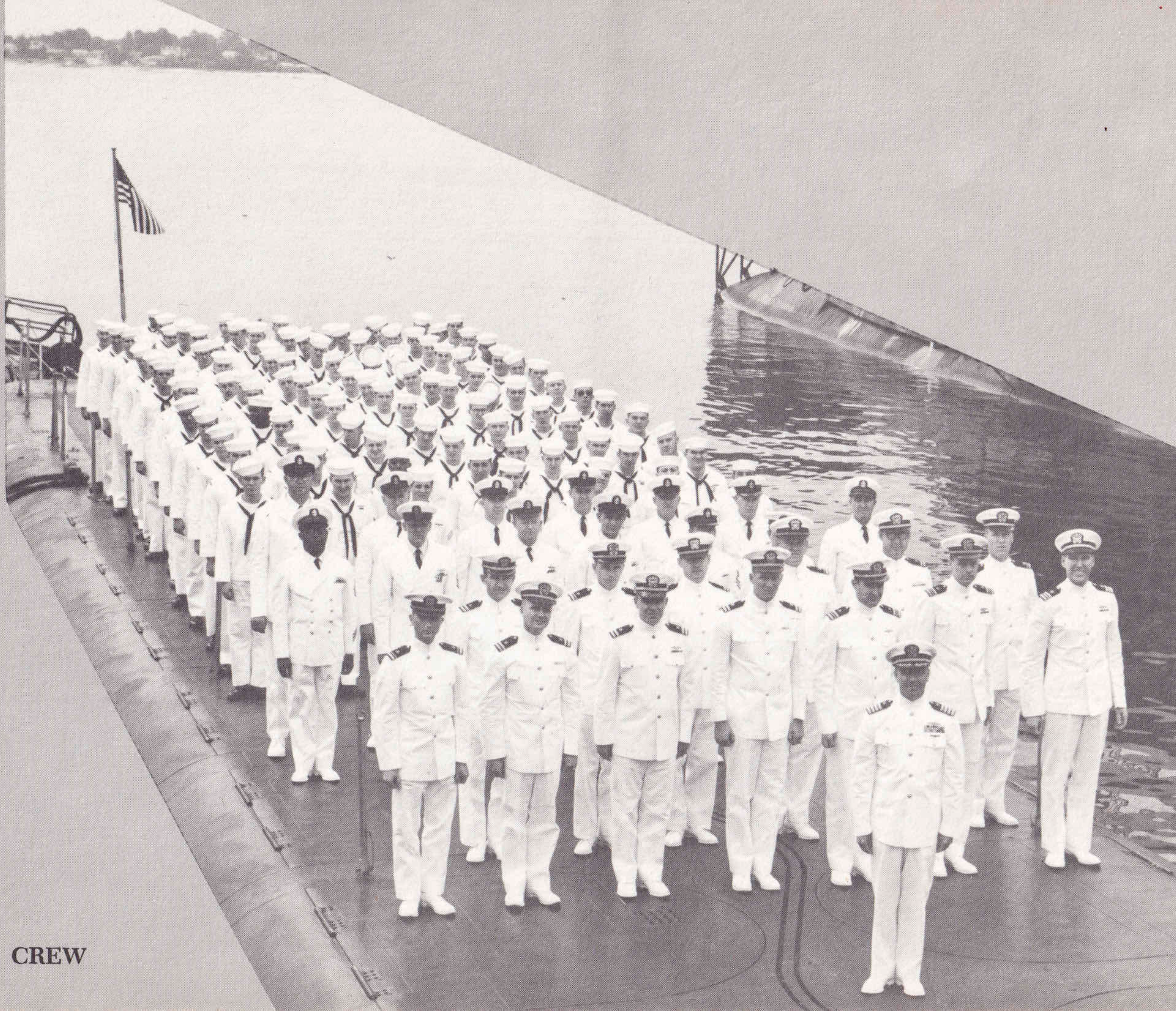
Missile Control Center-Ready for Count Down



Galley-Preparing the Evening Meal

Diving Stand-"Make Your Depth 100 Feet."





BLUE CREW

COMMISSIONING PROGRAM

INVOCATION

Commander George H. Wheeler, (CHC), USN

INTRODUCTION OF BUILDER'S REPRESENTATIVE

Captain Harry A. Jackson, USN, Supervisor of Shipbuilding, Groton

REMARKS

Mr. J. William Jones, Jr., President,
Electric Boat Division, General Dynamics Corporation

INTRODUCTION OF THE COMMANDANT, THIRD NAVAL DISTRICT

Captain Harry A. Jackson, USN

REMARKS AND READING OF AUTHORITY

TO PLACE THE SHIP IN COMMISSION

Rear Admiral Redfield Mason, USN, Commandant, Third Naval District

HOISTING OF THE ENSIGN, UNION JACK, AND COMMISSIONING PENNANT

NATIONAL ANTHEM

United States Coast Guard Band

ASSUMPTION OF COMMAND AND SETTING OF THE WATCH

Captain Donald M. Miller, USN

REPORTING OF THE GOLD CREW AND REMARKS

Lieutenant Commander Ross N. Williams, USN

REMARKS

Captain Donald M. Miller, USN

INTRODUCTION OF THE UNDER SECRETARY OF THE NAVY

Vice Admiral Vernon L. Lowrance, USN, Commander Submarine Force,
U. S. Atlantic Fleet

INTRODUCTION OF THE PRINCIPAL SPEAKER

The Honorable Robert H. B. Baldwin, Under Secretary of the Navy

ADDRESS

Mr. Benjamin Franklin, III

BENEDICTION

Commander George H. Wheeler, (CHC), USN

GOLD CREW

OFFICERS

LCDR R. N. Williams, USN Commanding Officer

LCDR J. G. Juergens, USN Executive Officer
LT J. L. Coolidge, USN Weapons Officer
LT H. G. Tonnessen, USN Navigator
LT J. D. Higginbotham, USN Missile Torpedo Officer
LT P. H. Powers, USN Main Propulsion Assistant
LT T. W. Habermas, USN Engineer

LT R. K. Jones, (MC), USNR Medical Officer
LT D. G. Chew, USN Communicator
LT B. A. Cozadd, USN Reactor Control Officer
LT R. B. Gill, USN Damage Control Assistant
LT D. D. Middleton, USN Supply Officer
LTJG A. E. Walther, USN Electrical Officer

CHIEF PETTY OFFICERS

O'Connor, J. L., EMC(SS), Chief of the Boat

Andersen, R. M., ETCS(SS)
Appleton, M. R., MTC(SS)
Atchison, D. C., RMC(SS)
Barney, D. L., ETC

Callen, D. L., STC(SS)
Cantrell, A. C., TMCS(SS)
Chelstad, J. P., MMC(SS)
Coley, R. (N), SDC(SS)

Cox, D. J., YNC(SS)
Dubois, H. T., ENC(SS)
Felton, E. C., QMCA(SS)

Goersch, J. P., EMCA(SS)
Hinson, W. P., ENC(SS)
Lewis, G. I., ETCS

Twombly, B. C., FTCA(SS)
Walker, P. E., RMCA(SS)
Wynne, W. G., CSC(SS)

ENLISTED PERSONNEL

Allbritton, J. E., EN2(SS)
Arcail, J. V., Jr., FTM2(SS)
Armstrong, T. R., STS2(SS)
Aubin, R. A., SN
Azbill, G. T., ENFA
Bagshaw, W. (N), QM1(SS)
Bargelski, M. J., MM2
Barron, E. H., TM3
Blevins, T. A., FN(SS)
Boatright, T. E., MM1(SS)
Boccia, A. D., TM2
Bowser, R. A., MM1
Burgess, C. A., Jr. IC3
Charbonneau, H. A., SK3(SS)
Chiappi, W. (N), EM1(SS)
Christina, R. E., TM2(SS)
Clifton, R. D., MM1(SS)
Confar, E. R., MT2(SS)
Cook, T. L., ETR3(SS)
Cramer, F. E., Jr., ETN2(SS)
Dailey, E. L., SN

Daugherty, D. L., TM1(SS)
Denson, A. L., SD1(SS)
Donovan, W. J., EN1(SS)
Dowler, J. R., SN
Driscoll, D. A., ET1
Eck, D. W., ETR2(SS)
Fessenden, P. G., FN
Fitzpatrick, W. M., Jr. EN1(SS)
Friend, R. L., SM1(SS)
Gary, F. O., FTG1
Gilleland, A. L., SK1(SS)
Gray, W. H. MM3(SS)
Greene, A. L., FTM2(SS)
Grund, F. W., FTM2(SS)
Gunn, T. L., ET1(SS)
Gutman, H. A., MM3
Gwaltney, R. L., MM3(SS)
Halter, L. (N), CS2(SS)
Harris, D. R., SN
Harting, B. R., MT2(SS)
Hatcher, K. (N), YNSN

Hayes, E. "F", ETN2
Heltsley, J. R., ETN2
Honaker, H. E., EN3(SS)
Hopp, D. C., ETN2
Jenner, W. H., STSSN
Johnson, K. A., RM2(SS)
Jones, N. L., RM3
Justin, P. F., EN2(SS)
Kanning, D. E., MM2(SS)
Keeler, R. E., EM3
Kingsberry, H. G., EN2(SS)
Kolenich, R. C., FA
Kozlik, G. J., ENFA
Lahood, J. J., EN1(SS)
Lindsay, W. M., FN
Linn, D. E., EN2(SS)
Lomax, J. D., Jr., MM1(SS)
Lowery, H. J., IC1(SS)
Lucas, J. F., EM2(SS)
Marmon, M. S., CS2(SS)
Marx, B. C., MM2(SS)

May, R. B., ET1(SS)
McGraw, T. J., TM2(SS)
McLaughlin, J. P., FTG3
Mersereau, G. C., ETN2
Miller, D. C., STS3(SS)
Mitchell, B. C., IC1(SS)
Moore, C. A., MM2(SS)
Moore, J. W., HM1(SS)
Nagle, J. K., MM2(SS)
Newell, B. E., SD2(SS)
Nielsen, A. A., FTM3
Noon, T. R., CS1(SS)
Parmenter, W. D., IC2(SS)
Pedersen, A. E., IC3(SS)
Pedigo, J. M., Jr., MT3
Phillips, D. E., MT2(SS)
Renner, R. E., ETN3
Roche, P. J., SN
Rothschild, R. "R", IC1(SS)
Schrab, D. H., EM2
Schwartz, E. E., Jr., TM3

Sears, J. D., TM3
Seward, A. P., EM2(SS)
Shotts, G. "D", Jr., STS2(SS)
Simpson, D. L., IC2(SS)
Slanker, M. R., MT3(SS)
Smyros, C. J., QM3(SS)
Sommerfield, J. J., FTM2(SS)
Steck, G. O., EN1(SS)
Strong, K. D., QM3(SS)
Talone, J. M., RM3
Thames, O. E., Jr., IC2
Tout, M. L., SN
Trevis, R. E., ST1(SS)
Tyler, M. S., Jr., ETR2
Waguespack, S. E., Jr., MT3
Walker, P. R., MM2(SS)
Whalen, T. J., Jr., ENFN
Whiteside, L. J., TM2(SS)
Wilson, E. (N), EN1(SS)
Yaden, W. K., RM2(SS)

BLUE CREW

OFFICERS

CAPT D. M. Miller, USN Commanding Officer

LCDR R. T. Wright, USN Executive Officer
LCDR G. A. B. Grafius, USN Navigator
LCDR R. B. Hamilton, USN Engineer Officer
LT A. N. Urbanc, (MC), USN Medical Officer
LT J. M. Haffey, USN Weapons Officer
LT T. C. Jarvis, USN Communicator
LT T. C. Hubbard, USN Electrical Officer

LT W. P. Bancroft, USN Missile Torpedo Officer
LT D. M. Parker, USN Main Propulsion Assistant
LTJG R. A. Nau, USNR Reactor Control Officer
LTJG P. Schleifer, USN Assistant Engineer Officer
LTJG J. R. Terwilliger, (SC), USN Supply Officer
LTJG S. M. Schuppert, USN Damage Control Assistant

CHIEF PETTY OFFICERS

Dawson, A. P., TMC(SS), Chief of the Boat

Bowers, E. E., RMC(SS)
Brown, J. M., ICCA(SS)

Clements, D. L., MMCA
Greatorex, K. G., STC(SS)

Hall, O. N., QMC(SS)
Hurley, J. N. Jr., MTCA(SS)
Lawrence, P. L., ETCA(SS)

Maher, D. H., CSCS(SS)
McIntyre, D. G., MMCA(SS)

Special, P. F., MMCS(SS)
Tibus, C. V., SDC(SS)

ENLISTED PERSONNEL

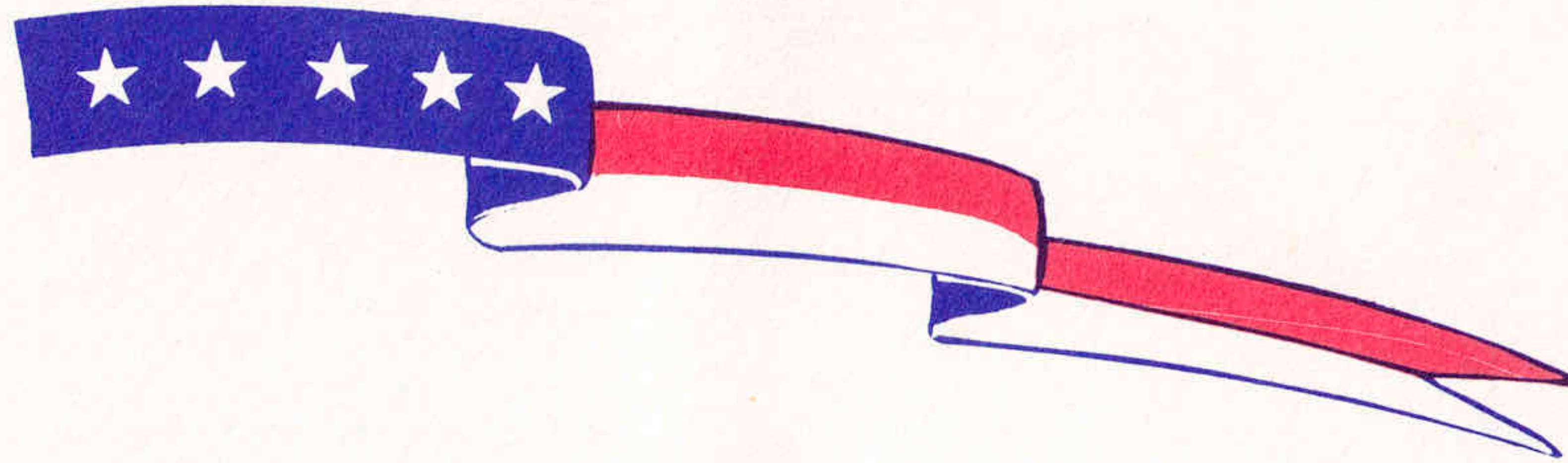
Andres, S., CS1(SS)
Arnold, L. L., ET1(SS)
Bagwell, B. E., FTM1(SS)
Banks, J. H., TM2(SS)
Beachem, K. H., MM1(SS)
Bell, G. W., IC1(SS)
Berry, J. L., MM3(SS)
Bird, D. L., FTM2(SS)
Blaylock, W. M., Jr., MM1(SS)
Blevins, D. T., CS2(SS)
Brown, C. G., EM2(SS)
Burleson, B. F., TM1(SS)
Caraway, A. J., MM1(SS)
Cashatt, M. E. Jr., MM3
Colorossi, J. J., SN
Cosendine, G. L., ETN2(SS)
Coughlin, W. J., MM2
Cozad, D. E., QM2(SS)
Crenshaw, D. C., STS2
Cunha, C. V., EM1(SS)
Deveau, J. R., EN1
Dualan, A. M., SD1(SS)

Dunn, D. E. Jr., TM2(SS)
Dunn, V. T., TM1(SS)
Dyer, R. L., SK1(SS)
Emerson, C. B., QM1(SS)
Engelberger, C. K., EN2(SS)
Everett, E. J., Jr., EMCM(SS)
Farrell, D. L., FTG1(SS)
Fisher, G. A., SN
Furlow, J. W., SN
Gonzales, R. (N), FTM2
Goodhind, R. M., FN(SS)
Hamby, C. V., ETR3
Harbour, E. D., CS2(SS)
Hayes, R. A., ETN3(SS)
Heill, G. W. Jr., EM1(SS)
Held, A. O., MM1(SS)
Hill, C., FTM2(SS)
Hodges, S. D., FTM2
Huff, E. E. Jr., ETN3
Huffman, W. D., QM3(SS)
Jenkins, J. R., ETR2(SS)
Johnstone, J. G., FA

Jones, J. D., EM2(SS)
Jordan, L. E., MT1(SS)
Kelderhouse, R. D., RM1(SS)
Klungler, H. J., III, MT3
Labolle, P. A., RM3
Lestage, C. J., YN3(SS)
Lockett, E., SD1(SS)
Lodge, R. R., MM3
Logullo, L. R., SK3
Lussier, G. A., Jr., SN
Maloney, R. C. Jr., ENFA
Martin, B., MM2
McElwee, M. R., MM1(SS)
McIlrath, J. L., MM3
McKeag, G. E., RM2(SS)
McVicker, C. B., ST1(SS)
Messler, R. S., TM3
Miller, G. J., IC2(SS)
Miracle, F. G., FN
Murphy, J. H., ETR2(SS)
Narick, S. D., III, ENFN
Neal, J. G., EN3

Nemeth, W. S., FN
Nicholoff, J. W., QM3(SS)
Nicholson, D. J., STS3(SS)
Nordberg, H. A. Jr., MM1(SS)
Olsen, T. A., SN
Pankratz, W. L., FTM2(SS)
Papstein, C. A., IC1(SS)
Patterson, L. W., MM2(SS)
Patton, D. L., TM2(SS)
Pedersen, G. L. W., ETR3
Pence, R. H., ETR2(SS)
Price, S. M., EN1(SS))
Radack, J. P., ETR2
Reynolds, O. C., III, MM2(SS)
Riggs, G. H., IC3(SS)
Rishel, R. M., EN1(SS)
Rodehaver, R. F., MM1(SS)
Rogliano, E. T., STSSN
Roskopf, P. J., YN1(SS)
Sale, J. R., EM2(SS)
Sandow, J. J., STS3
Sassman, E. H., ET1(SS)

Shaffer, W. C., MM2(SS)
Slaughter, H. D., FTG3(SS)
Smith, G. S., HM1(SS)
Snell, L. M., EN2(SS)
Snyder, G. A., MT2(SS)
Spears, C. N., EM3(SS)
Spina, F. J., TM2(SS)
Stieber, G. F., MT2
Stout, S. W., MT3
Straight, L. P., MM1
Swanner, C. J., ET1(SS)
Swartz, B., ETR2(SS)
Trowbridge, C. R., EM2(SS)
Upton, J. M., EM2(SS)
Varela, A., SN
Waddington, T. E., SN
Weinman, J. F., ETN3(SS)
Witcher, R. L., RM1(SS)
Woodruff, D. A., MM2(SS)
York, J. H. A., ETR2(SS)
York, W. J., MT2
Young, L. E., EM2(SS)



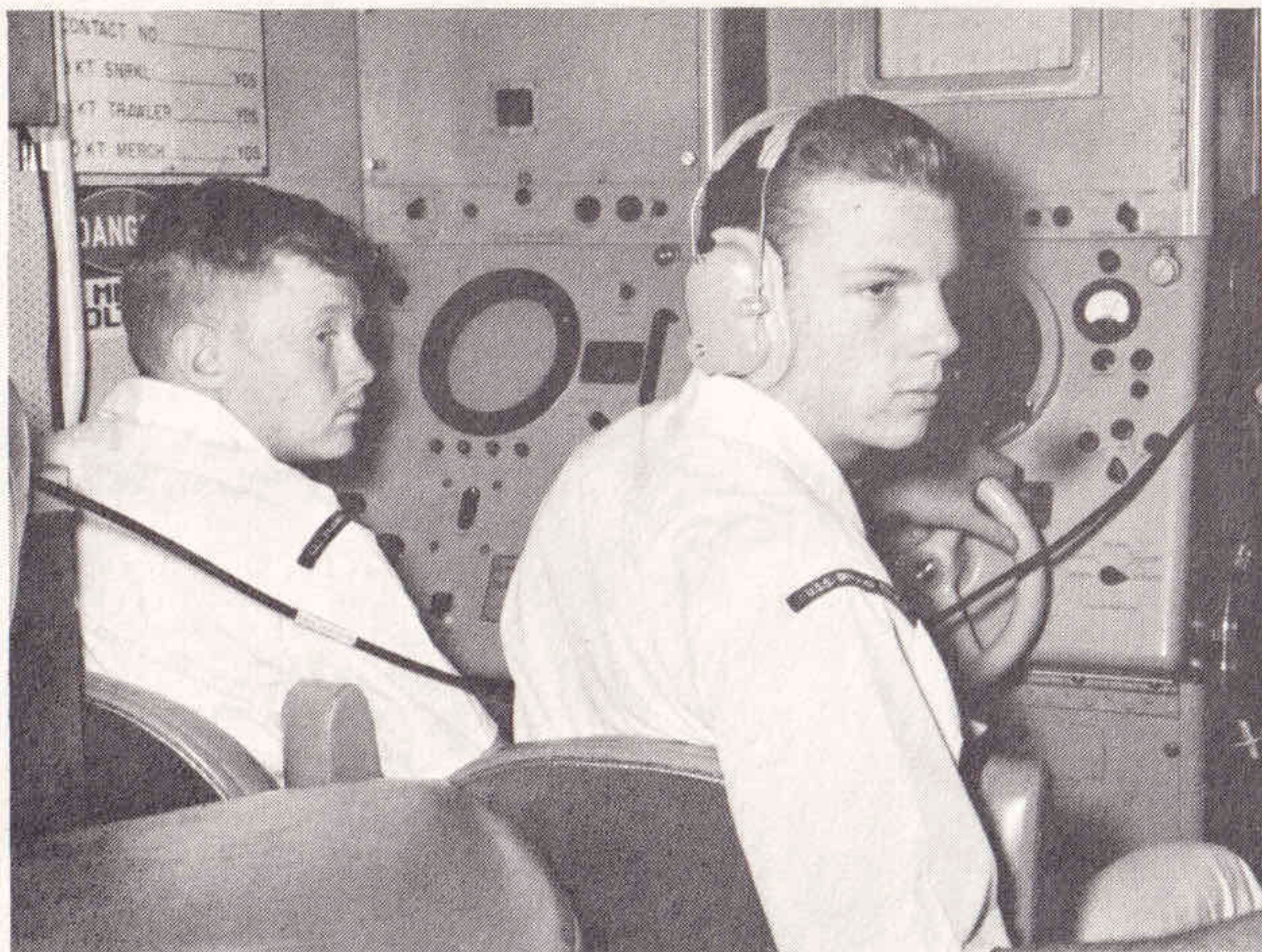
COMMISSIONING OF A NAVY SHIP

The commissioning ceremony marks the acceptance of a ship as a unit of the Operating Forces of the United States Navy. At the moment of breaking the commissioning pennant, USS BENJAMIN FRANKLIN (SSBN 640) becomes the responsibility of the Commanding Officer who, together with the ship's officers and men, has the duty of making and keeping her ready for any service required by our nation in peace or war.

* * * * *

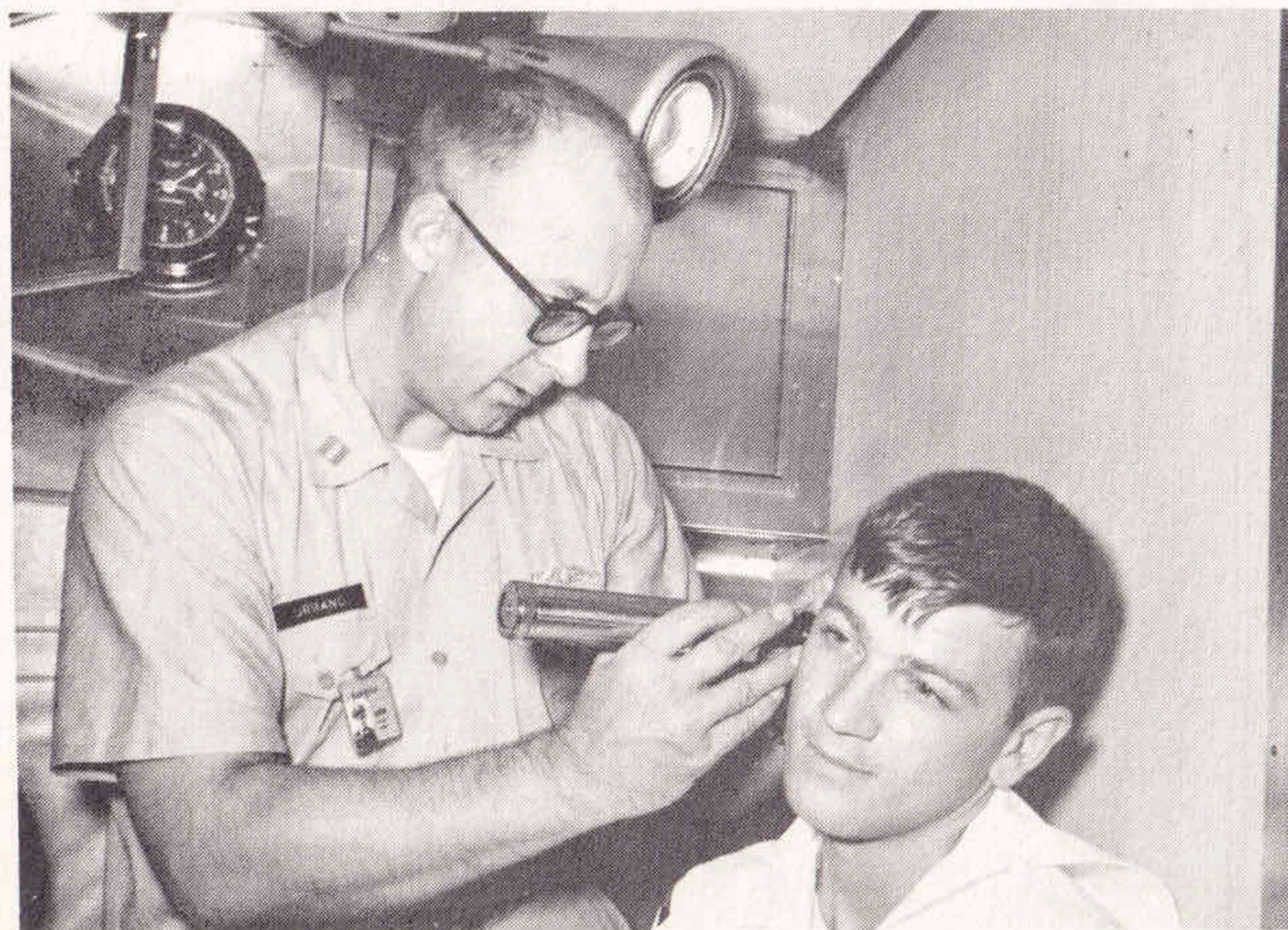
The commissioning pennant is believed to date from the 17th century when the Dutch were at war with the English. The Dutch Admiral TROMP hoisted a broom at his masthead to indicate his intention to sweep the English from the sea. This gesture was answered by the English admiral who hoisted a horse whip, indicating his intention to chastise the Dutch. The English were victorious and ever since, the narrow, or coach whip, pennant (symbolizing the original horse whip) has been adopted by all nations as the distinctive mark of a ship of war.





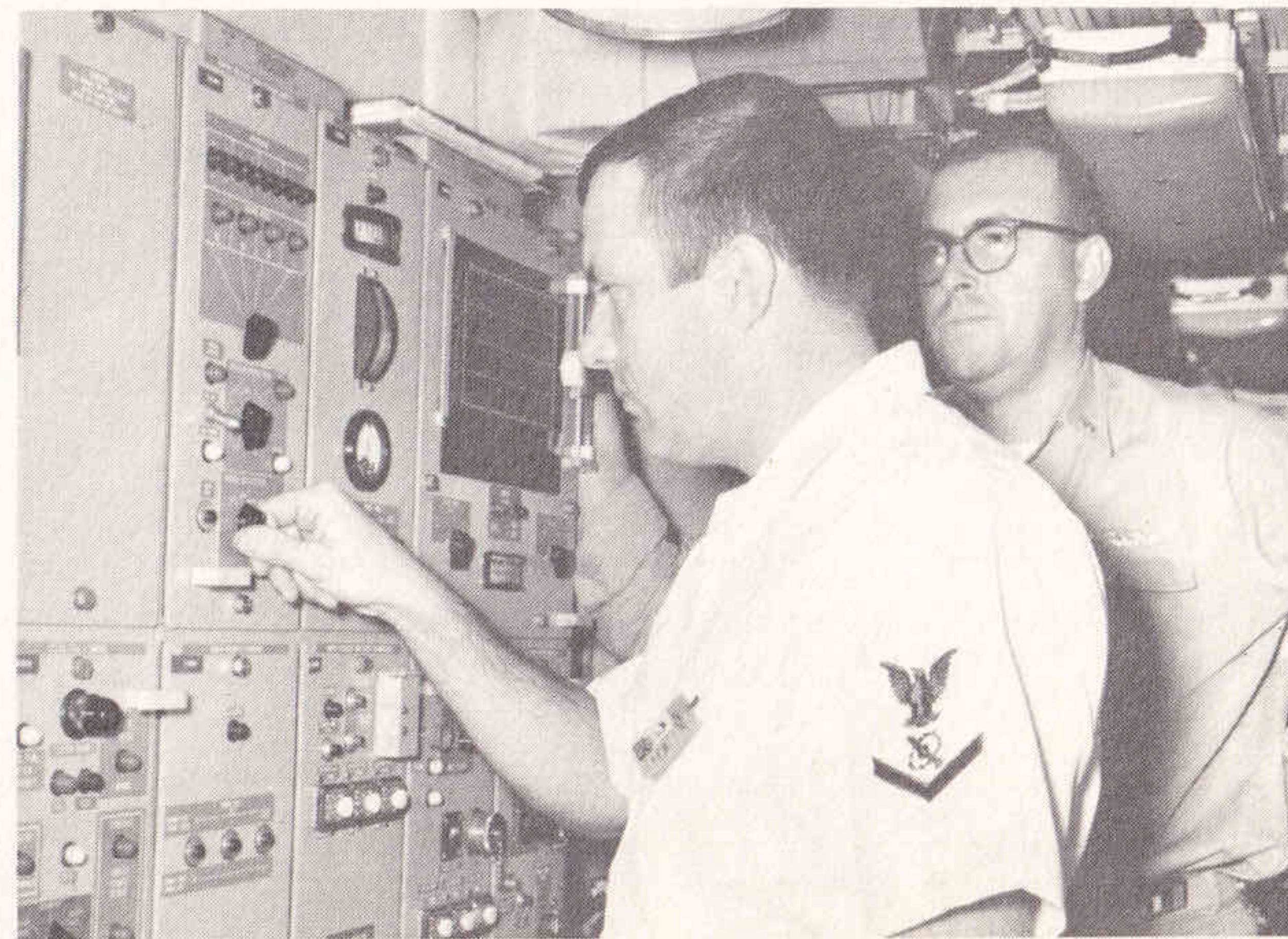
Sonar Watch

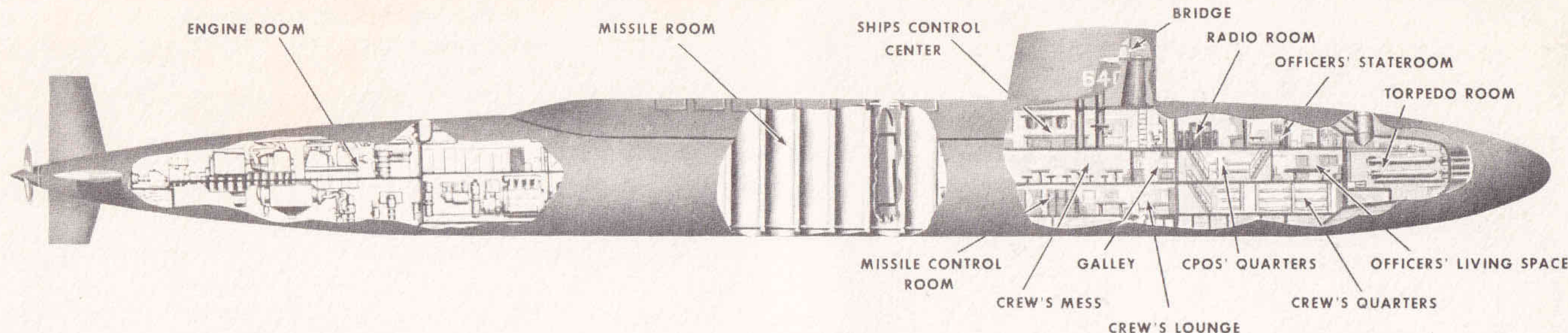
Sick Call



Scullery-Washing Dishes

Launcher-Ready the Missile





NAVIGATION SYSTEM

Two positions must be known for success in missile launching — target and launcher. This places great importance on navigation since the position of the launcher is the position of the ship and is continuously changing. Several navigational methods complement each other in the FBM submarine to provide a very high order of accuracy in determining ship's position.

At the heart of the system is the Ship's Inertial Navigation System (SINS) which integrates ship motion, speed, and headings to give a continuous report of ship's position.

The ship has two SINS, each checking the other. Similar systems guided NAUTILUS and SKATE on their historic voyages beneath the polar ice in 1958, TRITON on her 84 day underwater cruise around the world, and more recently, SEA-DRAGON and SKATE in their rendezvous at the North Pole in the summer of 1962.

TRAINING

The average pre-commissioning training period of BENJAMIN FRANKLIN personnel is about 18 months. From several weeks to a year is devoted to formal schooling in radio, sonar, navigation, fire control, weapons or engineering. After a thorough grounding in such items as transistors, electronic circuitry, Boolean logic, digital computer theory, hydraulics, and nuclear physics, BENJAMIN FRANKLIN personnel receive intensive training in the maintenance of integrated systems. The training program continues at sea, and on shore, off crews are provided with training facilities in the home port of the various SSBN Squadrons.

COMMUNICATIONS

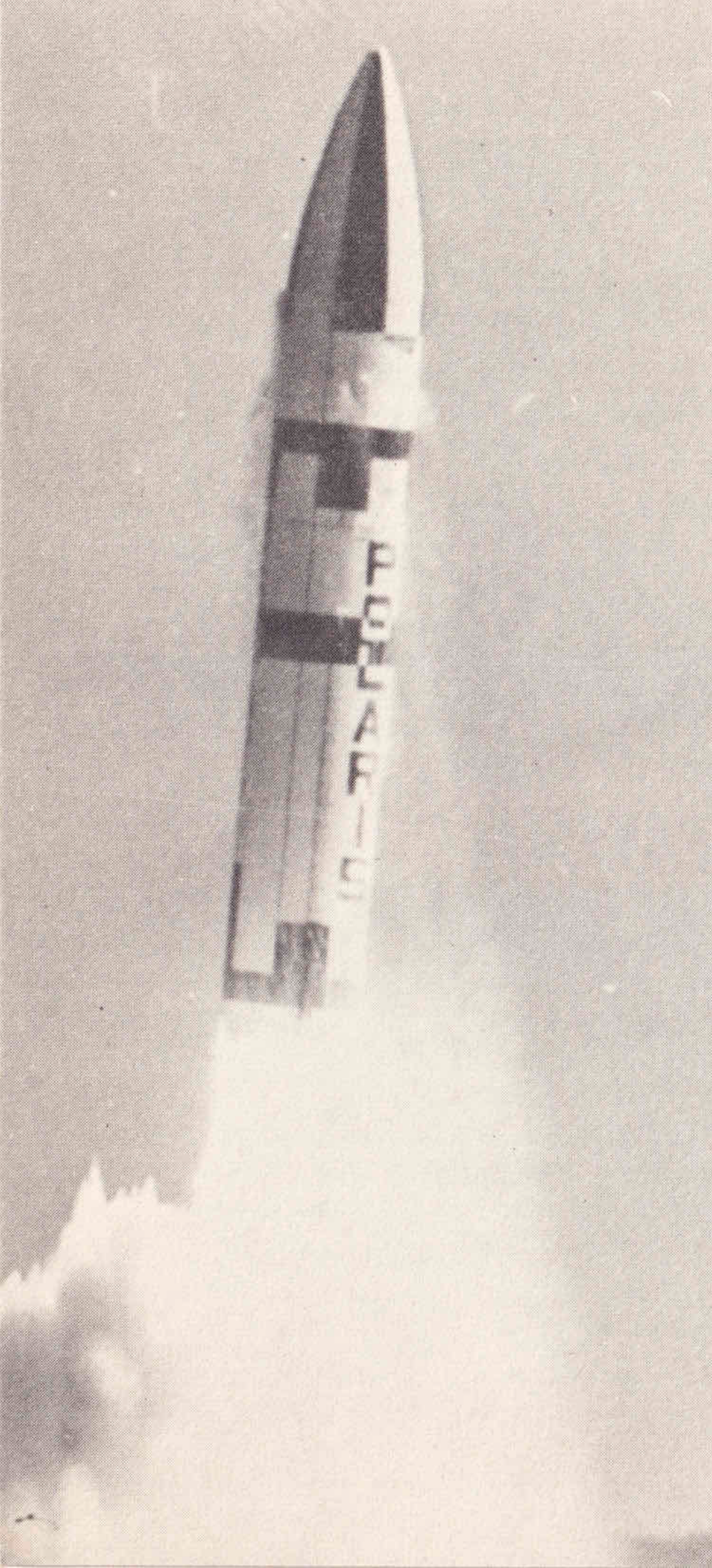
Radio communications with submerged submarines have been possible for a number of years. The systems used have been devised with special care to protect the locations of the submarines and leave the advantage of concealment unimpaired. Recent tests have again demonstrated that the Navy's worldwide communication system has the power and coverage necessary to exercise command of the always-submerged Fleet Ballistic Missile submarine.

SUPPLY

To support the intricate systems in FRANKLIN the Supply Department maintains a variety of spare parts which number about 95% of the range of different spares stocked aboard an aircraft carrier. The Supply Department also stores and prepares the variety and quality of food and baked goods normally found in a good hotel. All of these jobs are done with a handful of men and in very limited space.

FIRE CONTROL

The fire control system feeds a wealth of coordinated information to the missile guidance system. Ship location, local vertical, true north heading, target location and trajectory to be flown are continuously supplied until the very instant of firing.



FLEET BALLISTIC MISSILE

The Fleet Ballistic Missile Weapon 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 missiles. The later construction FBM submarines carry the second generation POLARIS, the 1,500 nautical mile range A-2 missile. BENJAMIN FRANKLIN will carry the new third generation, 2,500 nautical mile A-3 missile.

THE MISSILE

POLARIS, named for the North Star, is a two-stage ballistic missile powered by solid rocket motors.

The 2,500 nautical mile range operational missile is designated the POLARIS A-3. It is about 32 feet long, about four and one-half feet in diameter, and weighs about 35,000 pounds. Each motor exerts thrust through four nozzles in the motor base.

MISSILE GUIDANCE

The inertial guidance system used in POLARIS is a refinement of earlier inertial systems and is the smallest in use in U. S. ballistic missiles. The guidance system puts the missile on correct course at the time of launch and automatically computes a new correct course should the missile deviate from its path. At the precise instant required, the guidance system triggers separation of the re-entry body from the missile. The re-entry body then follows a ballistic trajectory to the target.

MISSILE LAUNCHING

POLARIS 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 ship's crew so that the missiles are always ready.

MISSILE CONCEPT

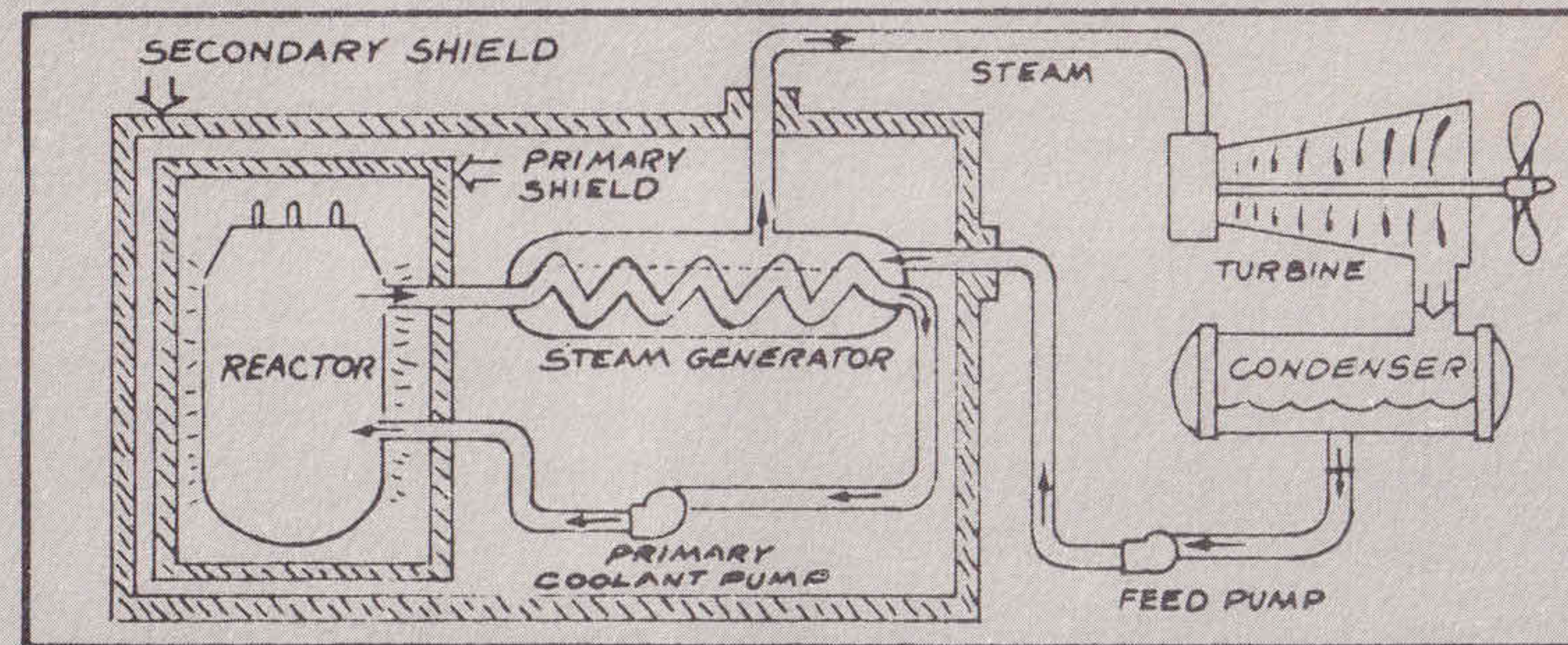
With almost unlimited cruising range and with endurance limited only by the crew, the Fleet Ballistic Missile Submarine is capable of extended submerged operations in the international waters of the world which comprise about 70 percent of the earth's surface. Free of the need to surface or extend a snorkel above the surface, FBM nuclear submarines remain hidden by the ocean, their locations unknown to any poten-

tial enemy. The POLARIS 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.

VITAL STATISTICS

KEEL LAID	25 May 1963
Launched	5 December 1964
Length	425 Feet
Beam	33 Feet
Commissioned	22 October 1965

Displacement Surfaced	about 7000 tons
Displacement Submerged	about 8200 tons
Speed Submerged	over 20 knots
Diving Depth	over 400 feet
Built by	General Dynamics/Electric Boat



THE POWER PLANT

BENJAMIN FRANKLIN 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, for propulsion, 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.

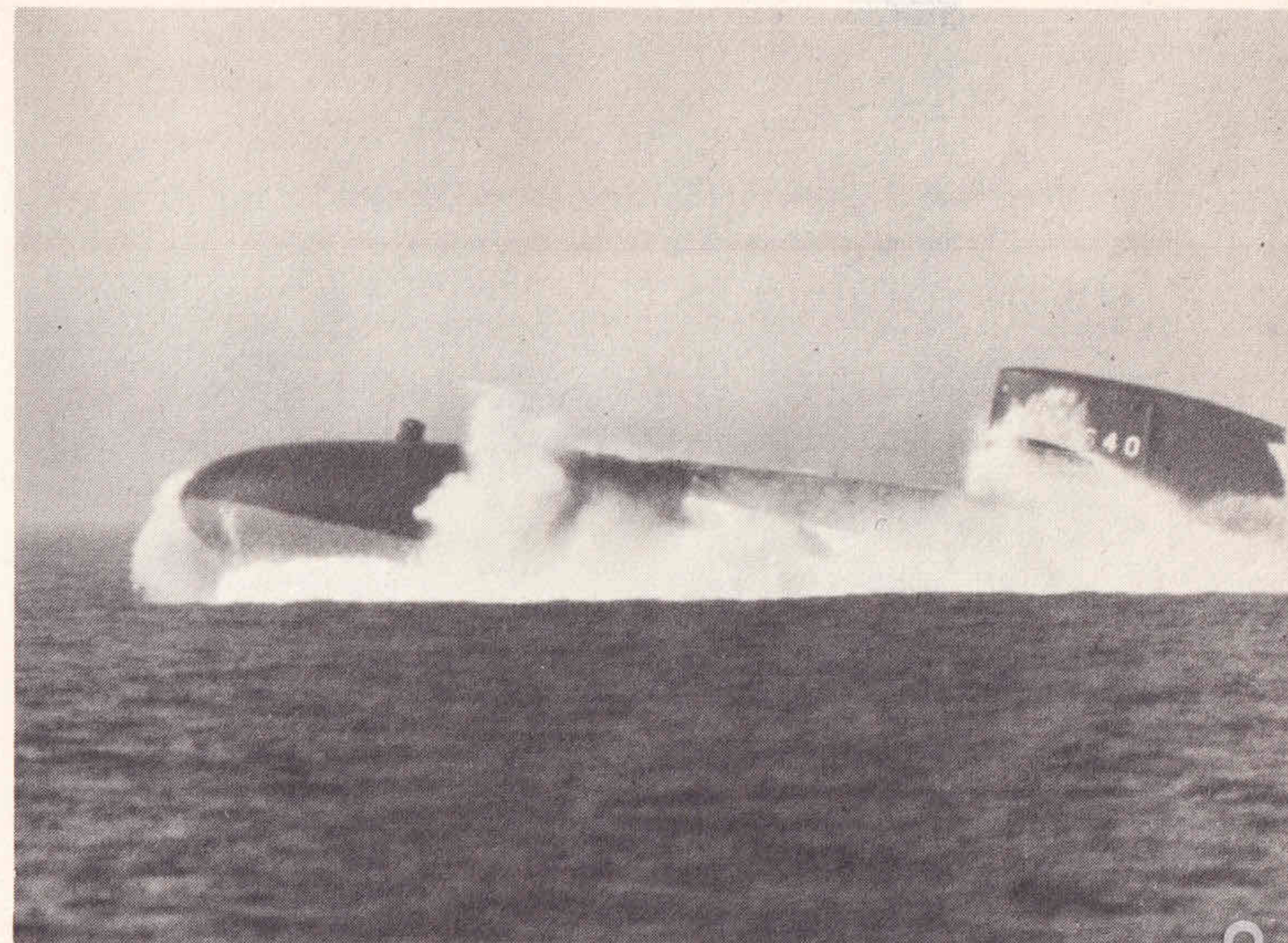
The secondary system is the steam producing cycle and is made up of the shell side of the steam generators, turbines,

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 engine room where it drives the ship's service 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 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.

"There is no little enemy."

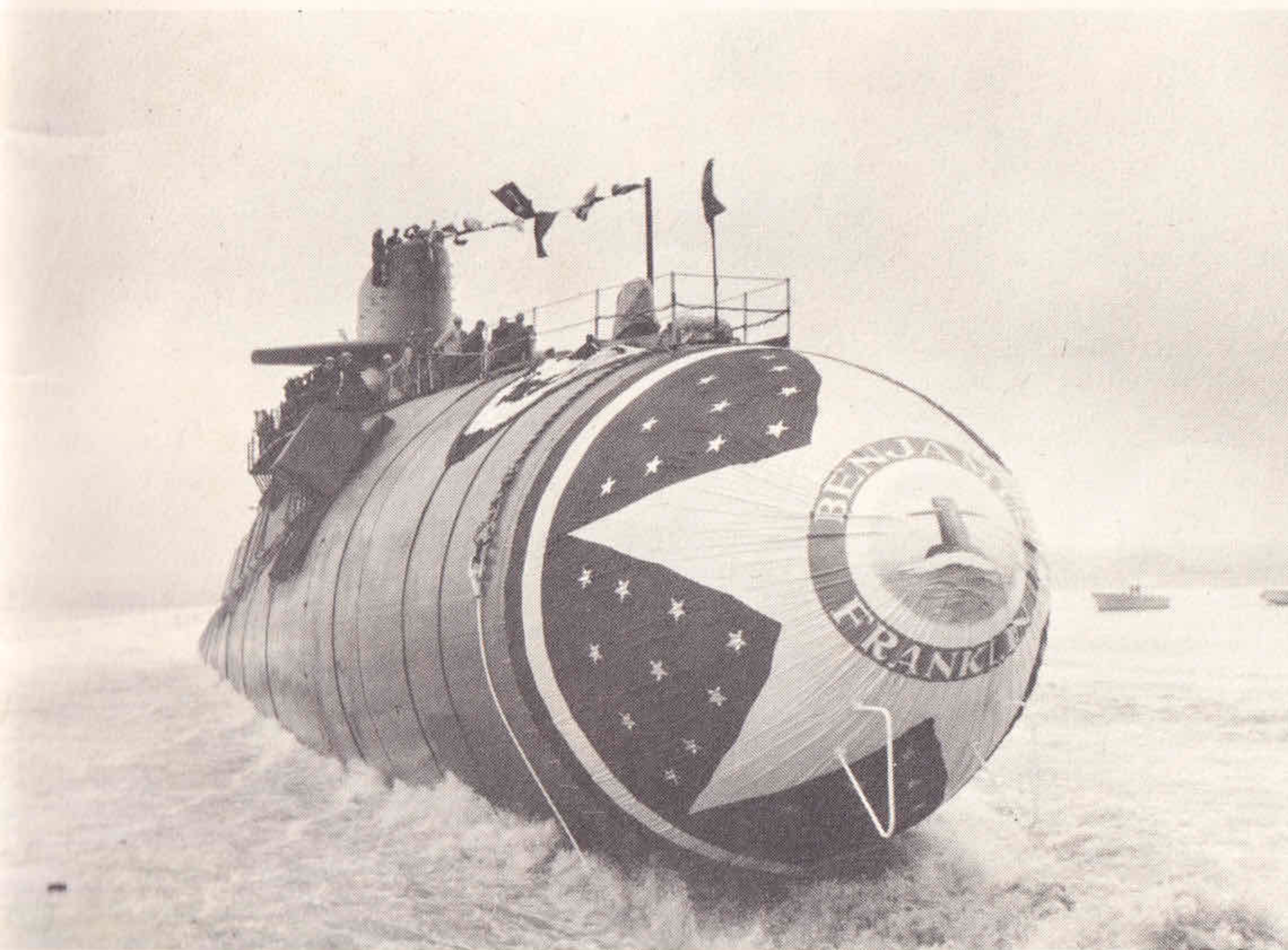
"None preaches better than the ant, and she says nothing."



SEA TRIALS

30-31 August 1965

"The worst wheel on the cart makes the most noise."



LAUNCHING

5 December 1964

THE COVER

The insigne of the USS Benjamin Franklin symbolizes her role as a major deterrent weapons system and a significant event in the life of her namesake. The 13 stars stand for the 13 original colonies and the dolphins the submarine force. The kite, key and lightning represent not only Franklin's fascination with the phenomenon of electricity but the powerful lightning-like deterrent force of Polaris as the key to security.