

**WELCOME ABOARD**



*USS Will Rogers*



The Officers and Crew of the USS WILL ROGERS take great pleasure in extending their most hearty welcome! While aboard, we hope that you find your visit of great interest as well as enjoyable.

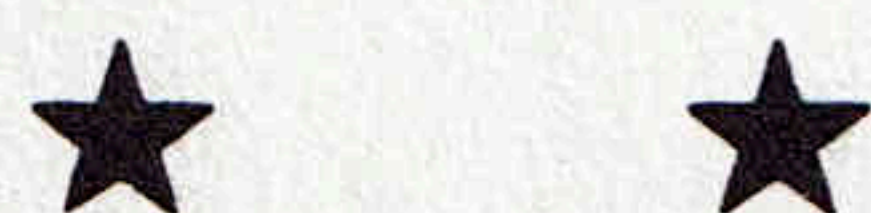


# USS WILL ROGERS (SSBN 659)

KEEL LAID: 29 MARCH 1965



LAUNCHED: 21 JULY 1966



COMMISSIONED: 1 APRIL 1967



BUILT BY

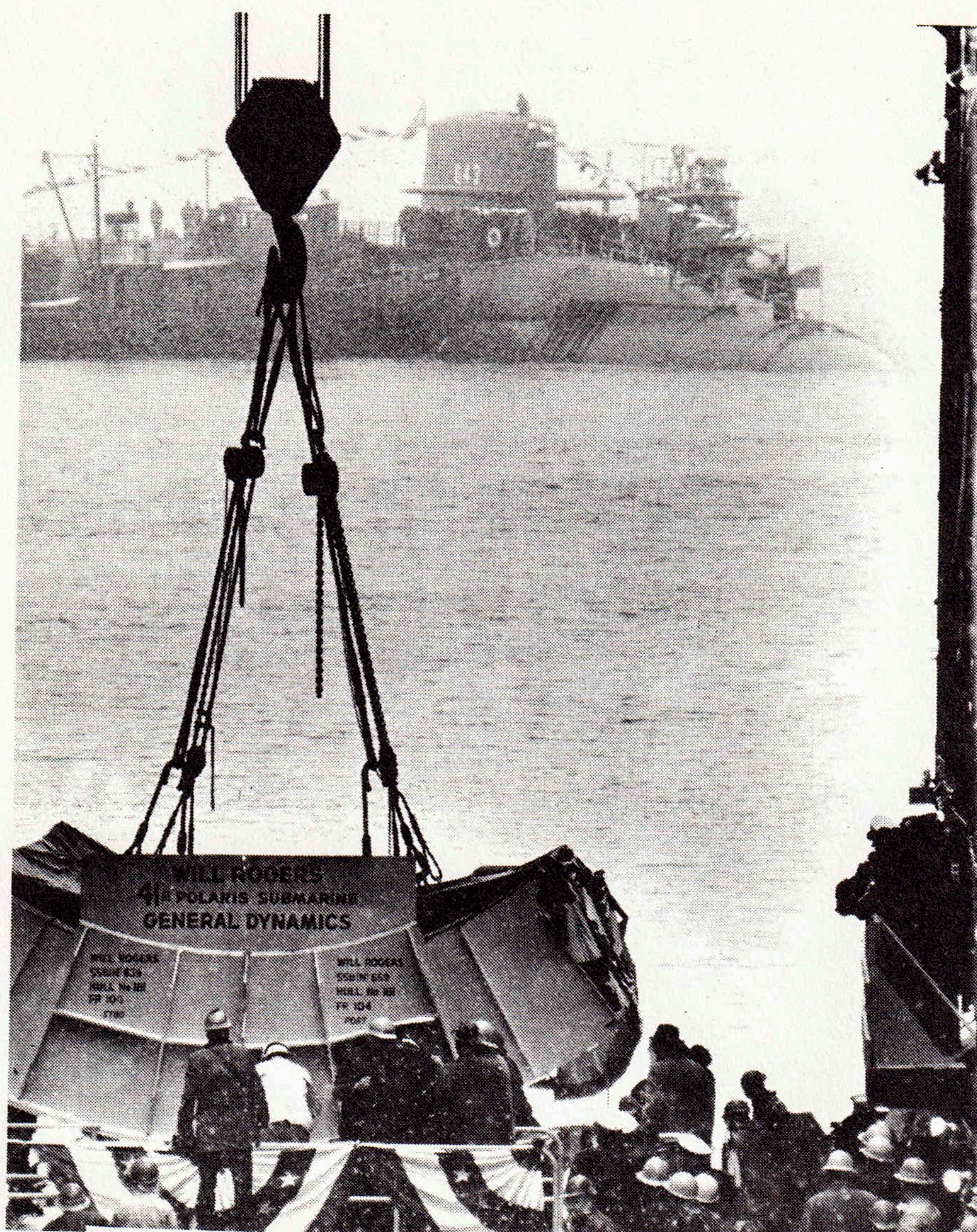
**GENERAL DYNAMICS**  
*Electric Boat Division*



SPONSOR

MRS. HUBERT H. HUMPHERY



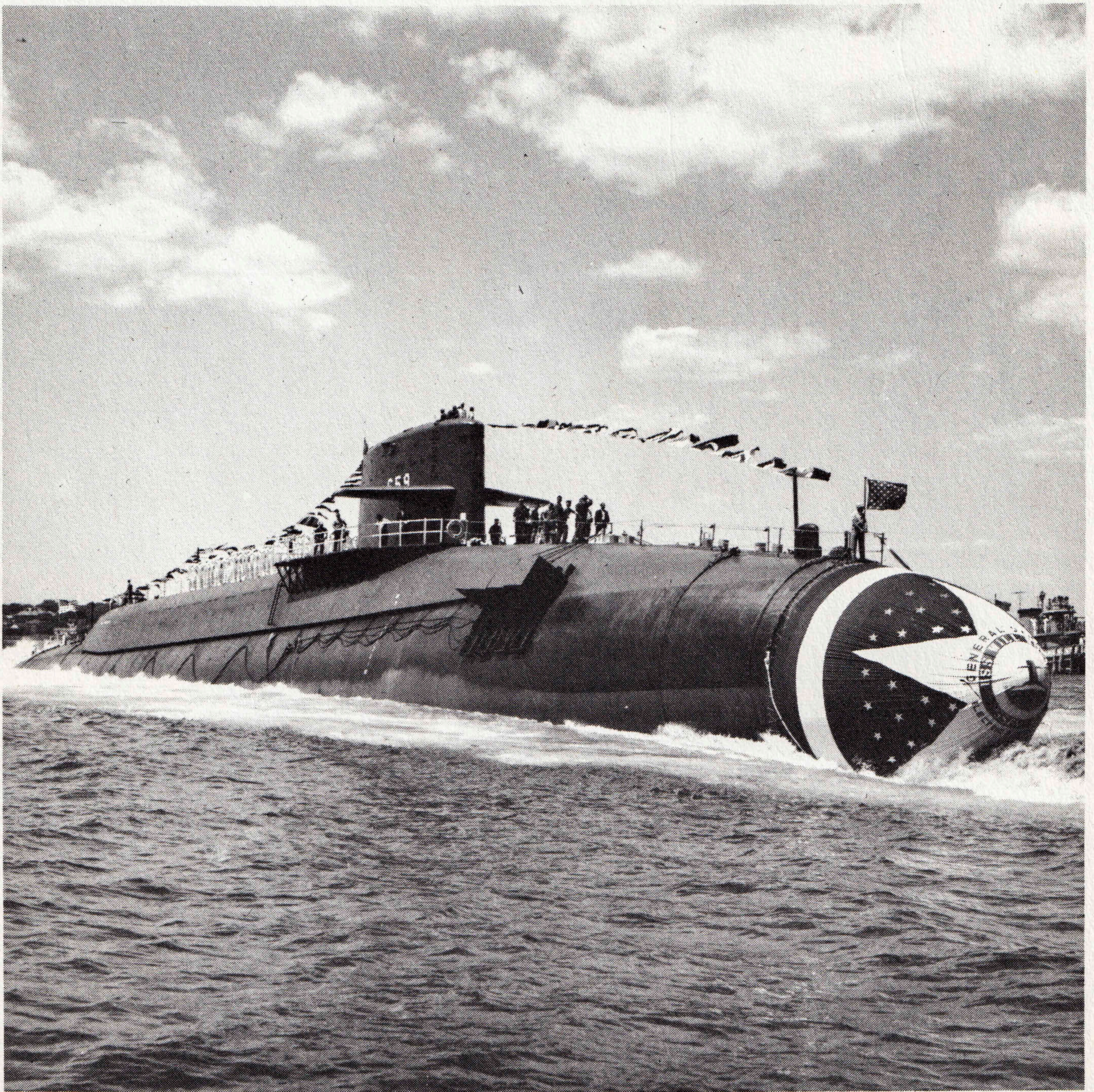


KEEL LAYING  
29 March 1965



CHRISTENING  
21 July 1966





LAUNCHING  
21 July 1966





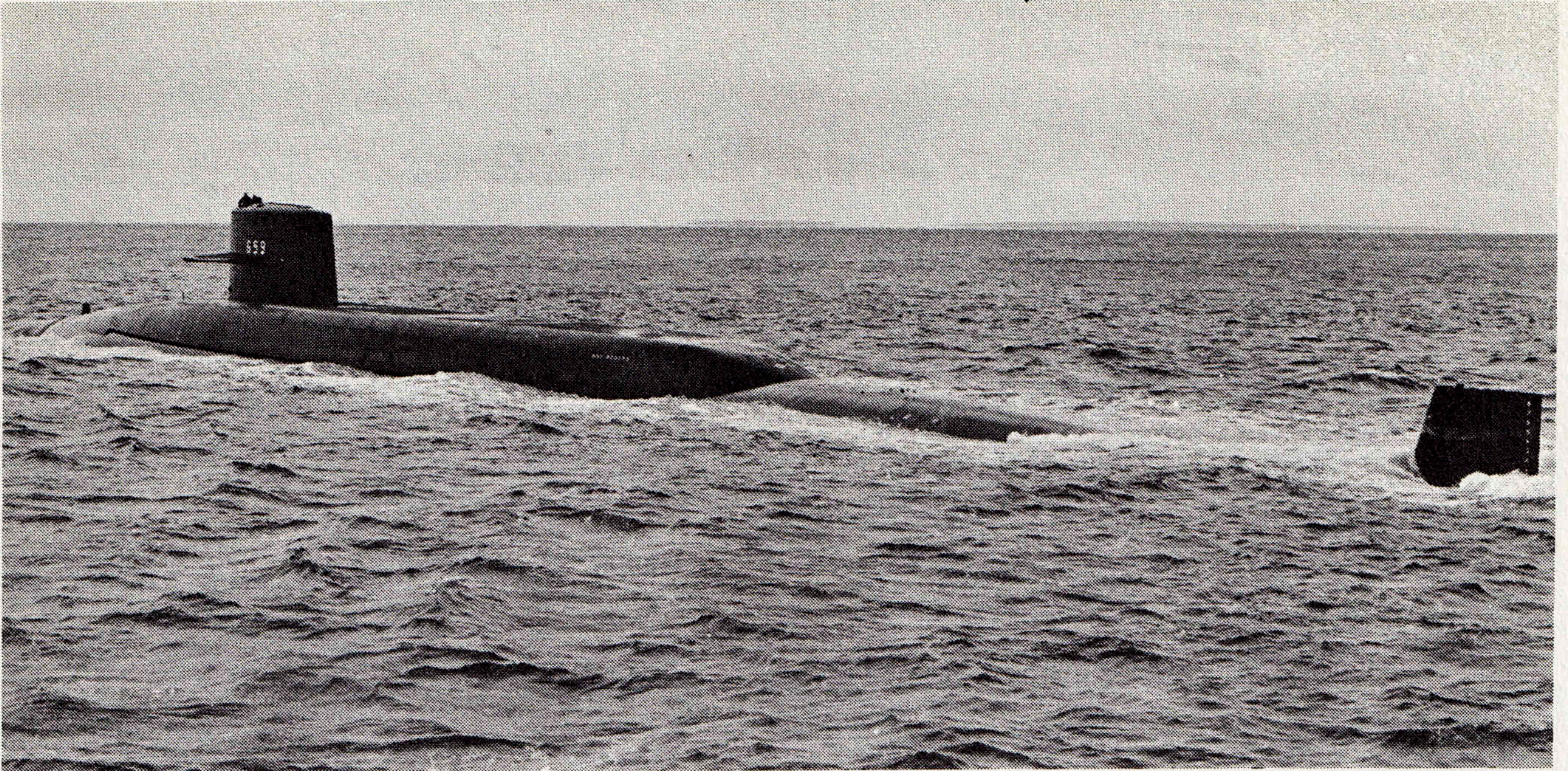
## WILL ROGERS

Will Rogers was a man of distinct character, humor, wit, philosophy, generosity, always a happy man, and always his "natchel" self.

He was born in 1879 of ranching parents near Oologah Indian Territory, Oklahoma. His boyhood home started him off toward an acting career and world wide fame, as he became an expert roper and rider. He traveled to Argentina, South Africa, and Australia where he worked as a rope artist and rough rider with a wild west show, finally returning home in 1904. Enjoying his travel, Will didn't stay home long, and in 1905 he made his New York debut at Madison Square Garden with the Colonel Zach Mulhall show. His act was one of roping and joking, all the time maintaining a relaxed, homespun atmosphere. . . . . "Ladies and gentlemen, I want to call your sho nuff attention to this next little stunt I am going to pull on you . . . I don't have any idea I'll get it, but here goes . . ."; and there he went, his country bumpkin style leading him directly to the hearts of his audience. Will rose to stardom in "Hands Up" in 1905, and was a star in the Ziegfeld Follies for several years of the early twenties.

Will Rogers was not only an actor, but also a philosopher and writer. In 1926, he began writing a syndicated column which consisted of a daily paragraph which dealt mainly with politics. Will's foresight and acuteness of mind is borne out in a statement made on November 17, 1929, that was applicable to his love for aviation or for progress in general . . . "It takes years in this country to tell whether anybody's right or wrong. It's kinder a case of just how far ahead you can see. The fellow that can only see a week ahead is always the popular fellow, for he is looking with the crowd. But the one that can see years ahead, he has a telescope but he can't make anybody believe he has it."





## U.S.S. WILL ROGERS (SSBN 659)

The USS WILL ROGERS (SSBN 659) is the Navy's 68th nuclear powered submarine and the 41st of its Polaris submarine fleet. The ship is 425 feet long with a beam of 33 feet and displaces approximately 8,000 tons submerged.

WILL ROGERS began her waterborne career on 21 July 1966 when she was launched at General Dynamics Corporation's Electric Boat Division at Groton, Connecticut. About seven months later she set out on her first series of sea trials under the direction of Vice Adm. H. G. RICKOVER, acting for the U.S. Atomic Energy Commission and the U.S. Navy, to test operation of the nuclear powerplant and handling characteristics of the ship. Immediately after successful completion of first sea trials further sea trials were undertaken to test the complex Polaris Weapon System and other intricate pieces of equipment installed on the ship.

Fast, silent and virtually immune to surprise attack, the WILL ROGERS combines the almost unlimited endurance of nuclear power with the deterrent might of 16 A-3 Polaris missiles capable of wreaking more havoc than all the bombs of World War II. These missiles have a range of about 2,500 nautical miles and are housed in 16 launching tubes located just aft of the sail.

Manned by alternate crews (Blue and Gold)—while one is at sea the other will be ashore training—she will be on duty almost constantly with address unknown, an underwater mobile missile launching platform hidden and virtually indestructible. Under U.S. control at all times the FBM (Fleet Ballistic Missile) system provides the United States with a powerful deterrent force to those who might start a global war.

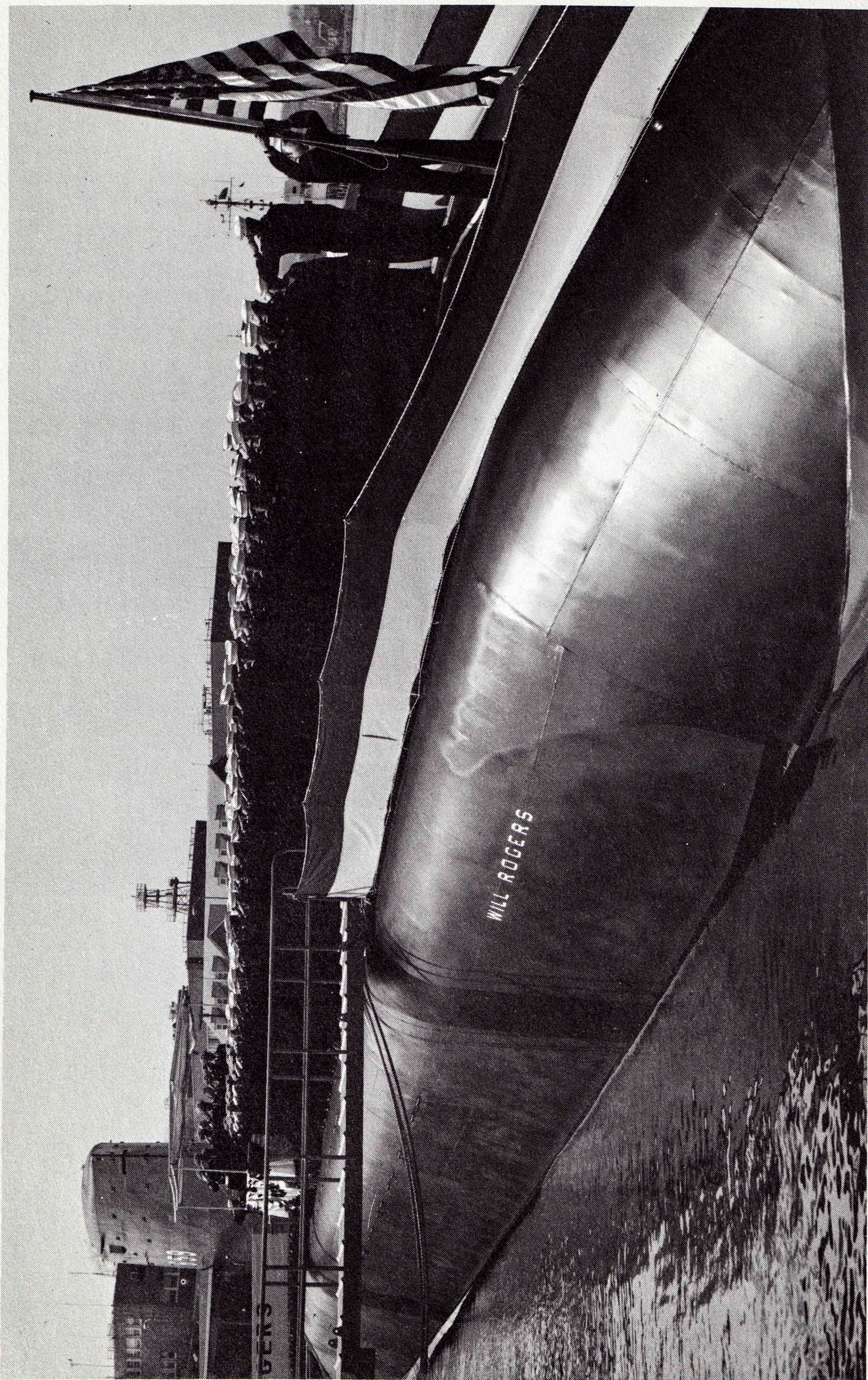
In order to provide for maximum crew comfort during the 60 day Polaris patrols the ship is equipped with 390 tons of air conditioning equipment. Special atmospheric purification equipment removes irritants from the air and maintains the proper balance of oxygen, carbon dioxide and other atmospheric elements, and electrolytic oxygen generators permit the submarine to manufacture all of its oxygen from sea water.





WILL ROGERS UNDERWAY ON FIRST SEA TRIALS







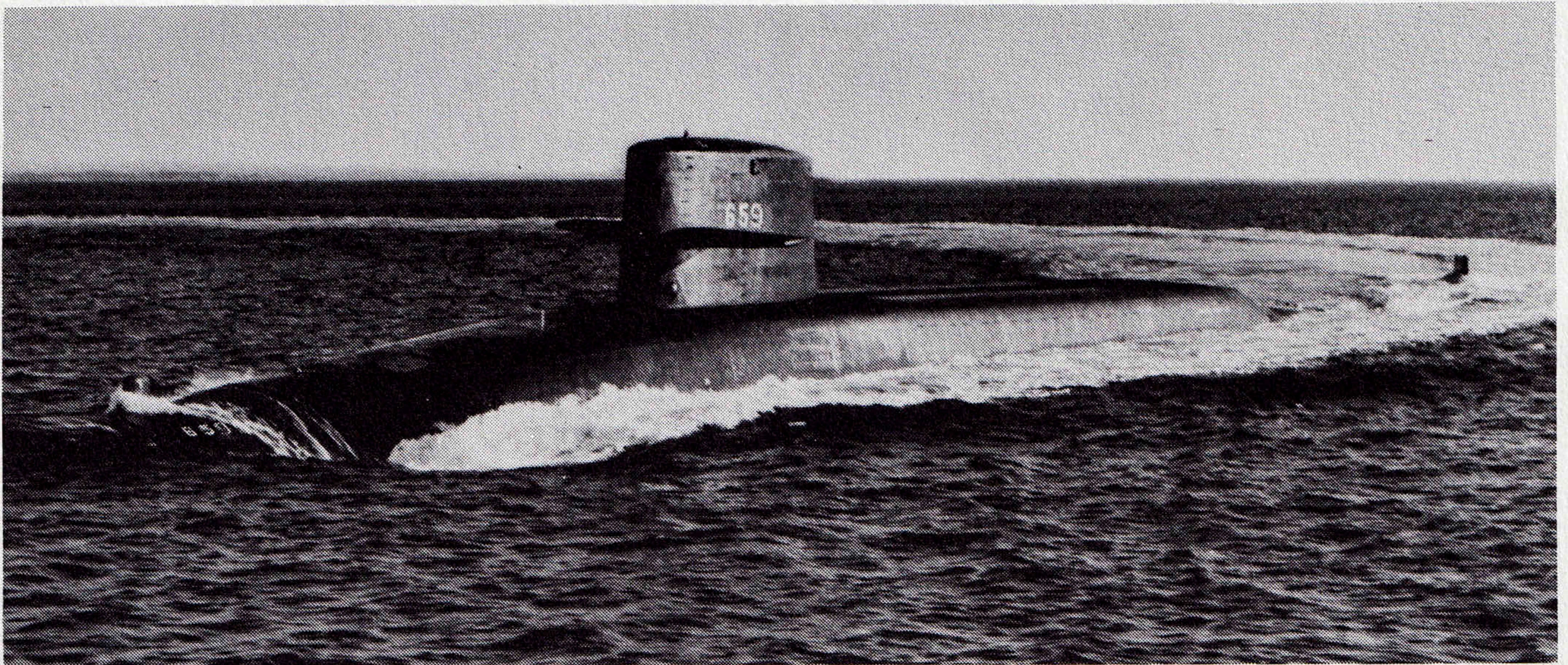


First Sea Trials



SHIP'S CONTROL CENTER





## THE FLEET BALLISTIC MISSILE SUBMARINE

The decade immediately following World War II saw a great change in the political power structure of the world. The United States changed its wartime role as "Arsenal of Democracy" to the "Bulwark of Freedom" in the cold war. To meet the challenge of the new role, new weapons systems were needed.

In January 1954, the USS NAUTILUS announced to the world that she was "underway on nuclear power." The vehicle for an advanced weapons system was complete. An undersea craft which is silent, fast, highly maneuverable, and capable of fighting a war the length of World War II without refueling was available.

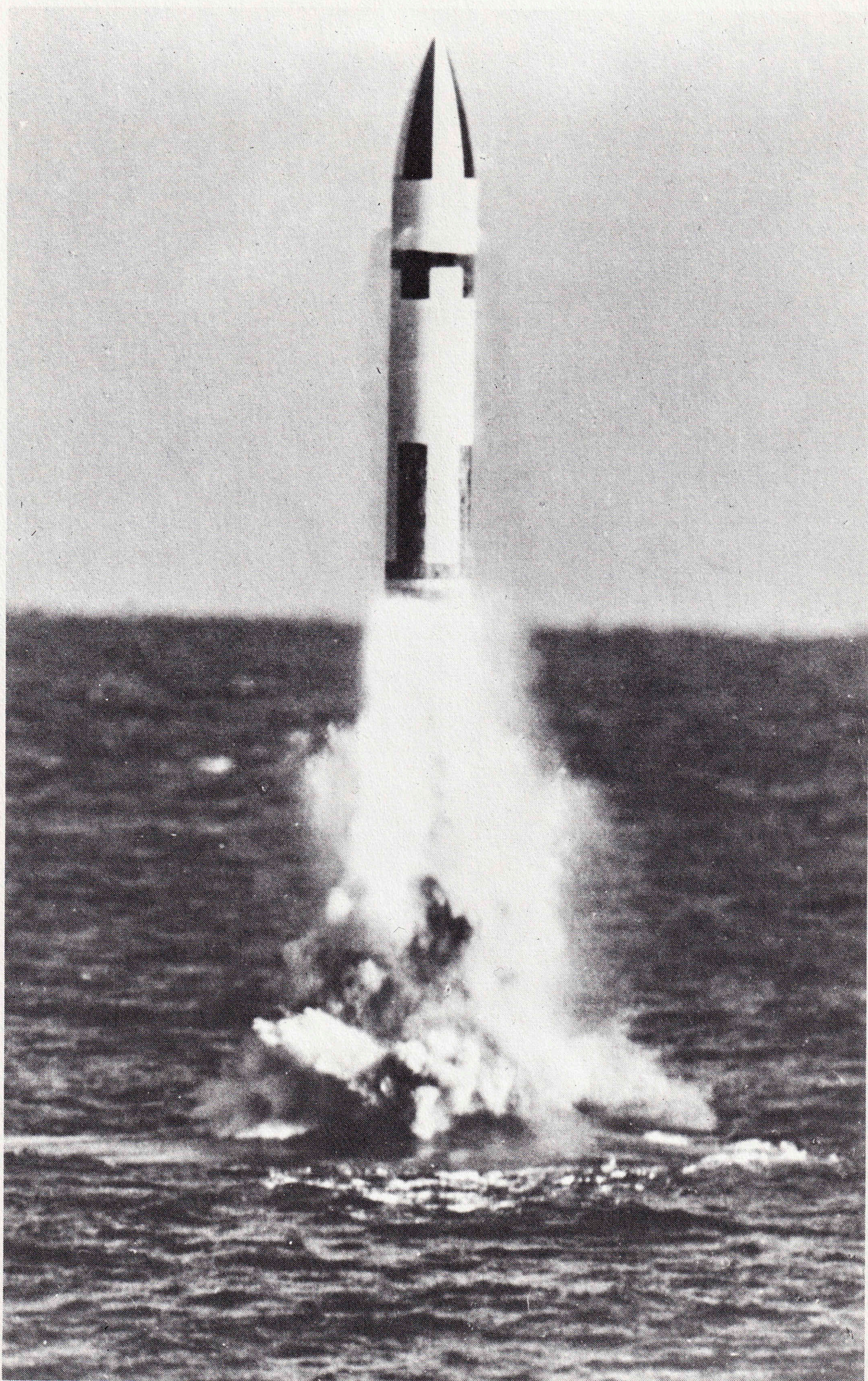
Polaris was the name given to the missile developed by the Navy to be fired from a submerged nuclear vessel. To take advantage of the long range and accuracy of the missile, methods of navigation which allowed fixing the ship's position instantaneously were studied. From this study, the Submarine Inertial Navigation system came into being. The SINS is located in the upper level operations Compartment with its associated computers.

To complete the weapons system it remained only to provide a suitable environment for the men who would operate it. Methods of atmosphere control were devised which would provide fresh air continuously. Temperature and humidity control keep these factors in the optimum range for both men and equipment. Pleasant surroundings with adequate exercise and recreation facilities are also provided.

There are 41 FBM's in the Polaris Fleet carrying a total of 656 missiles. All proudly bearing the names of great American patriots and statesmen and leaders, a bulwark for world peace, representing the greatest deterrent to aggression ever known to mankind.

Hull, propulsion plant, weapons and men all combine to give the Fleet Ballistic Missile Submarine a highly complex weapons system capable of staying hidden while moving at high speeds deep in the depth of the waters that comprise 70 per cent of the earth's surface. A mobile, self-contained missile launching site whose location is unknown to any potential enemy, ready to deliver immediately a devastating fire power, the FBM submarine is a powerful deterrent to those who might start a global war.







# POLARIS

Polaris, named for the North Star, is a two staged ballistic missile, designed to be launched from either surfaced or submerged submarines and from shore stations. However, the Polaris launching will be primarily from FBM Submarines. The missile is powered by solid fuel rocket motors and guided by a self-contained inertial guidance system independent of external commands or control.

Within the submarine, personnel can check and prepare missiles for firing while the ship is submerged. Ejected from its launching tube by gas, Polaris is forcefully propelled above the surface of the water, where the motor ignites. The missile continues on its own until its thrust is ended by a signal from the missile guidance system. After arriving at the correct speed, and the correct point in space, the second stage motor thrust comes to an end, and the re-entry body then continues along the pre-planned trajectory to the target.

The original Polaris was designated A-1. The A-1 Polaris had a 1200 nautical mile range and was officially retired from active fleet service 14 Oct. 1965. There are currently two generations of Polaris, A-2 and A-3.

The WILL ROGERS carries the Polaris A-3 which has a range of 2500 nautical (2880 statute) miles. The Polaris A-3 is a significant advance over the Polaris A-2. In terms of hardware design, Polaris A-3 is approximately an 85% new missile, but is still the same size as Polaris A-2 (about 31 feet long and 4½ feet in diameter).

A new guidance system developed for use on the A-3 is about one-third the size and weight of earlier systems. Using extremely precise gyroscopes, accelerometers and its own electronic computer, the guidance system puts the missile on correct course at the time of the launch. The guidance system also maintains the stability of the missile in the pitch, yaw, and roll planes. At the precise instant required, the guidance system shuts off the rocket motors and triggers separation of the re-entry body from the missile. The re-entry body follows a ballistic trajectory to the target.

The design and development of the Fleet Ballistic Missile Weapons system was an amazing feat of planning, engineering and testing. But the Polaris A-3 is not the latest missile planned for the FBM Submarine.

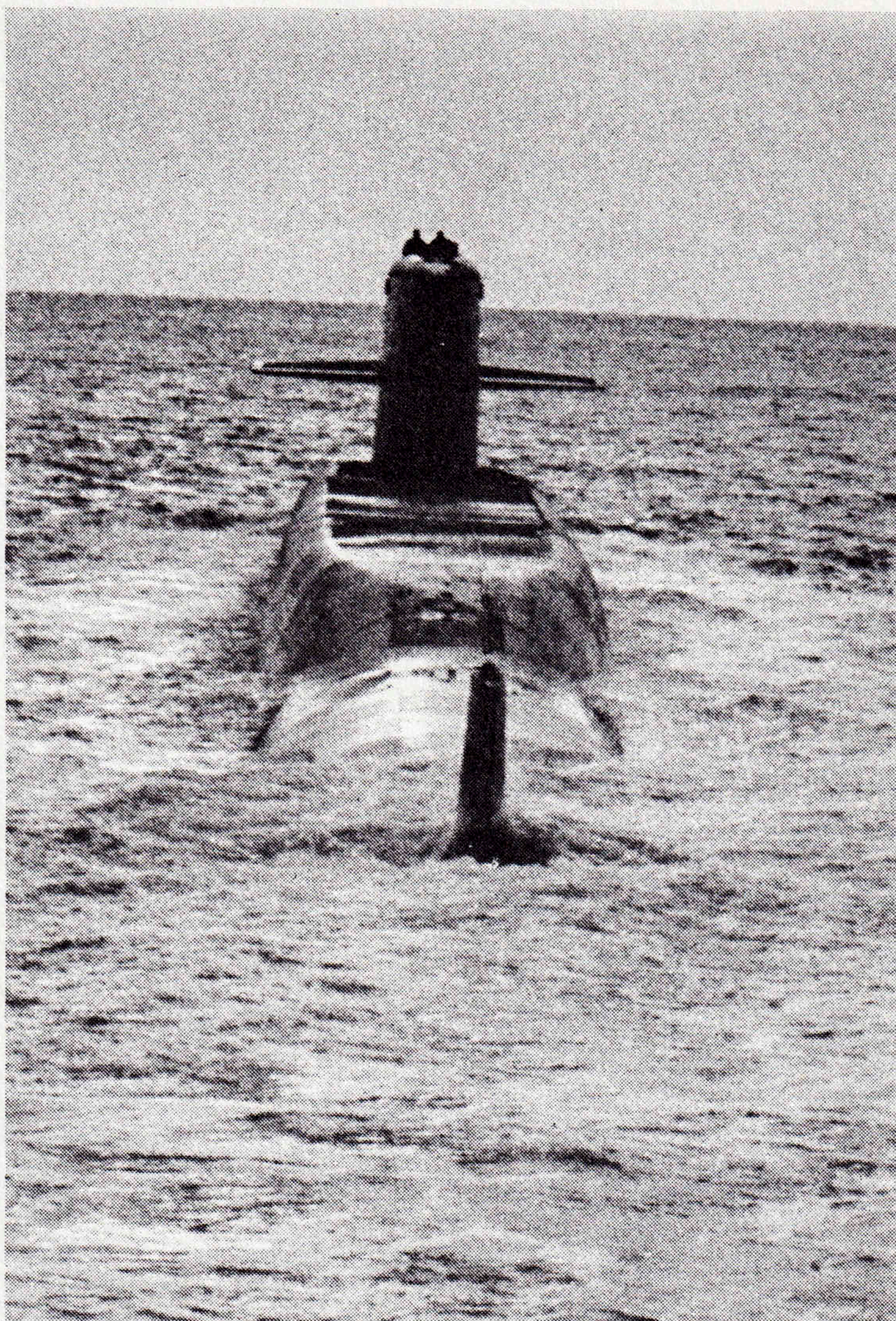
The President announced in January 1965 that a new missile for the Fleet Ballistic Missile Weapon System was being developed—POSEIDON.

POSEIDON is named after the God of the Sea in Greek mythology, an appropriate name for this sea based missile. He was called the "earth shaker" because of his ability to cause earthquakes far inland.

POSEIDON will be an improvement over A-3. It will have double the payload and twice the accuracy.

The increased capabilities of the POSEIDON plus the inherent survivability of the nuclear powered submarine give every reason to believe that the FBM system will continue to be a reliable and credible retaliatory force for this country in the years ahead.







## THE INSIGNE

The insignie has been designed to portray the close ties of WILL ROGERS to the old west, the pioneer spirit of our nation's westward movement, the State of Oklahoma WILL ROGERS' home state, and the modern Polaris weapon system, the nation's primary deterrent.

Surrounding the entire insignie is a lariat, virtually the trademark of this man who was acclaimed as the greatest trick roper of his time. The central figure is a sketch of a statue of WILL ROGERS on his famous horse "SOAPSUDS", dim as from the past, placed to have the famous man looking on scenes of the new modern of greatly advanced technology—a Polaris missile in powered flight and the submarine U.S.S. WILL ROGERS (SSBN 659), moving swiftly and silently beneath the ocean's surface. Midway along the length of the missile appears a figure which is the ROGERS family's Oklahoma ranch Dog-Iron Brand. The cattle brand exemplifies the pioneer spirit of our nation's westward movement. This provides a tie, as it were, between the two worlds . . . . The WILL ROGERS brand upon the missile. The background for the statue is the state of Oklahoma, providing here, as in life, the background for a great man.



