

SSN-685 Glenard P. Lipscomb

The USS Glenard P. Lipscomb (SSN 685) was the US Navy's second prototype design using a turbo-electric power plant similar to the Tullibee. The Glenard P. Lipscomb was generally similar to the SSN-637 Sturgeon class, apart from the use of submarine turbo-electric drive [TEDS] rather than the standard geared drive. Intended to test the potential advantages of this propulsion system for providing quieter submarine operations, the substantially larger and heavier machinery also resulted in slower speeds. Those disadvantages, along with reliability issues, led to the decision not to utilize this design on the follow-on SSN-688 Los Angeles class of submarines. Although serving as a test platform, the "Lipscomb Fish" was a fully combat-capable attack submarine.

Specifications

Displacement	6,480 tons submerged
Length	365 feet
Beam	32 feet
Speed	20-plus knots
Power Plant	One nuclear reactor, turbine-electric drive, one shaft
Armament	Torpedoes, four torpedo tubes Harpoon Tomahawk
Complement	141
Builder	General Dynamics' Electric Boat Division

Ships

Name	Number	Builder	Homeport	Ordered	Commissioned	Decommissi
Glenard P. Lipscomb	SSN-685	Electric Boat		16 Dec 1968	21 Dec 1974	01 Sep 1989

GENERAL DYNAMICS

Electric Boat Division



Launching
GLENARD P. LIPSCOMB

NUCLEAR POWERED ELECTRIC DRIVE SUBMARINE • AUGUST 4, 1973 • GROTON, CONNECTICUT

USS GLENARD P. LIPSCOMB

SSN 685

NUCLEAR POWERED ELECTRIC DRIVE SUBMARINE

KEEL LAID JUNE 5, 1971 AT ELECTRIC BOAT DIVISION OF GENERAL DYNAMICS

BY

MRS. LOUIS GRASSO

AND

MRS. ROBERT MURRELL

"WE MUST PUSH AHEAD VIGOROUSLY WITH THE DESIGN AND
CONSTRUCTION OF THE MOST ADVANCED NUCLEAR ATTACK
SUBMARINES OUR TECHNOLOGY CAN PROVIDE"

THE HONORABLE GLENARD P. LIPSCOMB
UNITED STATES HOUSE OF REPRESENTATIVES

PROGRAM

National Anthem	United States Submarine Base Band
Invocation	CDR Stephen N. Jones (ChC), USN
Introductions	Joseph D. Pierce General Manager, Electric Boat Division Vice President, General Dynamics
Remarks	David S. Lewis Chairman of the Board, General Dynamics
Introductory Remarks	Admiral Elmo R. Zumwalt Jr., USN Chief of Naval Operations
Introduction of Principal Speaker	The Honorable John W. Warner Secretary of the Navy
Address	The Honorable Melvin R. Laird Counsellor to the President for Domestic Affairs
Introduction of Sponsor	Vice Admiral H. G. Rickover, USN Director, Naval Nuclear Propulsion Program
Christening	Mrs. Glenard P. Lipscomb Sponsor Mrs. Louis D. Grasso, Mrs. Robert Murrell Matrons-of-Honor



MRS. GLENARD P. LIPSCOMB



Mrs. Louis D. Grasso



Mrs. Robert Murrell

Matrons-of-Honor

The sponsor at today's launching is Mrs. Glenard P. (Virginia) Lipscomb, wife of the late Congressman Lipscomb for whom the ship is named. Mrs. Lipscomb is attended by her daughters, Diane (Mrs. Louis Grasso) and Joyce (Mrs. Robert Murrell) as matrons of honor. Mrs. Grasso and Mrs. Murrell officially signified the laying of the keel in June, 1971 by welding their initials to it.

Virginia Lipscomb was born in Binghamton, N. Y., but as a child moved with her family to California. She worked in the field of apparel design until her marriage to Congressman Lipscomb in 1936. Throughout her husband's career in government, first in the California State Legislature and later in Congress, she provided active support.

Mrs. Lipscomb is a member of the Atwater Baptist Church in Los Angeles, an honorary lifetime member of the Parent-Teacher Association, and a member of the Los Feliz Women's Club. She has also devoted considerable time to Red Cross work and the Florence Crittenton Home in Washington, D.C.



Mrs. Lipscomb, Secretary of the Navy John H. Chafee, Vice Admiral H. G. Rickover, and Secretary of Defense Melvin R. Laird look on as Joyce and Diane examine their freshly welded initials on the keel of the USS Glenard P. Lipscomb.

While her husband was in the House of Representatives, she was an active member of the Congressional Club and served as the club's vice president.

Diane Grasso attended Bethesda-Chevy Chase High School, Maryland, and the University of Maryland.

Joyce Murrell also attended Bethesda-Chevy Chase High School, and graduated from California Western University in San Diego, California.



Mrs. Lipscomb authenticated the keel of the nuclear frigate CALIFORNIA, DLGN36, on January 23, 1970, accompanied by her daughter Diane and Secretary of Defense Laird. The CALIFORNIA is the first of a series of nuclear frigates being built as the result of a fight in the mid-1960's between the Congress and the Department of Defense. Congressman Laird and Congressman Lipscomb were leaders in the fight for nuclear frigates. Congressman Lipscomb's words engraved on the CALIFORNIA keel plaque are:

"Future generations of Americans will recognize that it was Congress that had the foresight, wisdom, and courage to take this initiative to strengthen the defense of our Nation."

At the CALIFORNIA keel laying, Secretary Laird said:

"The additional radius of action which the CALIFORNIA and her successors will provide to naval forces will be of great value to the defense of our country and to the defense of our allies. This is particularly important, as we face the inescapable reality of what the Soviet Navy is doing in expanding seapower throughout the world."



THE HONORABLE
GLENARD P. LIPSCOMB

This ship is named for the Honorable Glenard P. Lipscomb, who served as Congressman from the 24th District of California from 1953 until his death on February 1, 1970.

Congressman Lipscomb was born in Jackson, Michigan but lived most of his life in Los Angeles, California. He attended Los Angeles city schools, the University of Southern California and Woodbury College.

Congressman Lipscomb was elected to the California State Legislature in 1947 where he served until elected to Congress in 1953. During the 1952 presidential campaign, he was in charge of the Washington office of Senator Richard Nixon, who was the Republican nominee for Vice President.

Nine consecutive terms in the House starting in 1953 speak eloquently of his success. From 1958 he served on the powerful House Appropriations Committee. He was ranking Republican member of its defense subcommittee and served on the subcommittee handling appropriations for the Departments of State, Justice, Commerce, the Federal Judiciary and related agencies. In addition, he was the ranking minority member of the Committee on House Administration. He was a member of the Joint Senate-House Committee on Printing. From 1959 to 1970 he was the

chairman of the California Republican Delegation in Congress.

Congressman Lipscomb was a long time proponent of naval nuclear power. The quotation on the plaque attached to the keel is taken from a statement he made on the House floor in September 1968, when the Department of Defense was considering cancellation of the turbine electric drive submarine and termination of the construction of nuclear attack submarines.

He was also a leader in the fight for nuclear frigates. In a speech on the House floor on October 13, 1966 on "The Need for Nuclear Frigates Now" he said:

"It would be a mistake to build new surface warships for our first-line naval striking forces — warships that will still be in our fleet into the 21st century — and not provide them with the increased military effectiveness afforded by nuclear propulsion."

In support of nuclear frigates in 1967 he said: "The Department of Defense should proceed with the contracts for construction of both nuclear-powered frigates in fiscal year 1968 as soon as practical. We must get on with building more nuclear-powered surface escorts for our nuclear carriers."



THE HONORABLE MELVIN R. LAIRD

In June 1973, Mr. Laird was named Counsellor to the President for Domestic Affairs, following four years of distinguished service as Secretary of Defense. Mr Laird's career in government began in 1946, when he was elected to the Wisconsin State Senate. In 1952, Mr. Laird was elected to Congress, where he served eight successive terms. Mr. Laird was a member of the Appropriations Committee for seven

years, the ranking minority member of the Subcommittee on Health, Education and Welfare and Labor Appropriations, and a member of the Defense Appropriations Subcommittee, where he developed a close association with the late Congressman Glenard P. Lipscomb. During his congressional career, Mr. Laird served as Chairman of the House Republican Conference, was a member of the Republican Coordinating Committee, and was both Vice Chairman (1960) and Chairman (1964) of the Republican National Platform Committee.

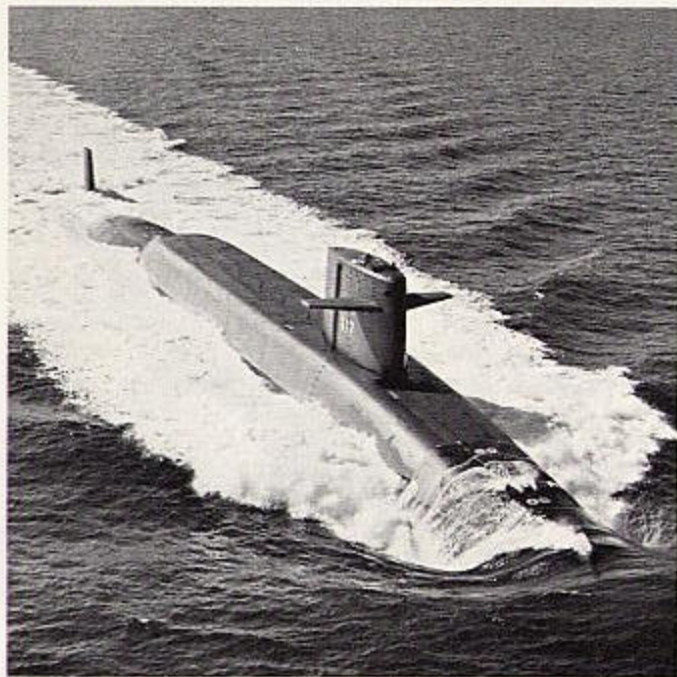
Both as Congressman and Secretary of Defense, Mr. Laird has been a strong advocate of the nuclear Navy. Vice Admiral Rickover, summarizing the history of naval nuclear propulsion in Congressional testimony, said:

"Secretary of Defense Laird was a leader in the fight for a nuclear Navy during his 16 years in the Congress, and he has been a constant supporter of the nuclear propulsion program in his present position."

Mr. Laird served in the Navy as both an officer and enlisted man during World War II. He received the Purple Heart, the Asiatic-Pacific Campaign Medal with five battle stars, the Philippine Liberation Ribbon with one battle star, and other decorations for duty aboard the destroyer USS MADDOX.

Mr. Laird received a B.A. degree from Carleton College in Northfield, Minnesota. He is author or editor of several books and articles dealing with public policy. Among other honors, he received the Distinguished Service Award of the American Political Science Association. Mr. Laird was born in 1922.

Mr. Laird is no stranger to Electric Boat Division nor to submarine programs; he delivered the principal address when his wife sponsored the nuclear attack submarine TREPANG in September 1969, and at the keel laying of this ship.



"Nuclear-powered submarines are the backbone of our Nation's most powerful deterrent force. They also provide the Navy with a powerful attack capability to protect our vital seallanes..."

Joint Committee on Atomic Energy -- February 1968

THE GLENARD P. LIPSCOMB

Today's launching of the USS GLENARD P. LIPSCOMB (SSN685) is the result of years of effort by Vice Admiral H. G. Rickover and the Navy to develop a nuclear-powered submarine for which quietness is the primary design objective. The LIPSCOMB is one of two new types of submarines now under construction by the United States.

Since 1964, Admiral Rickover has voiced his concern for the need for such a ship. In 1968, when the Department of Defense was considering cancellation of the ship, the Joint Committee on Atomic Energy held special published hearings on the nuclear submarine program. In the forewords to those hearings, the Joint Committee expressed its strong support for an aggressive nuclear submarine development and specifically stressed the Committee's support for the SSN685. During those hearings, Admiral Thomas H. Moorer, then Chief of Naval Operations, and now Chairman of the Joint Chiefs of Staff, stated:

"We do have a growing threat in terms of the development of submarines by the Soviet Union. We need to examine every technical approach which will lead to a submarine superior to those that they may develop.

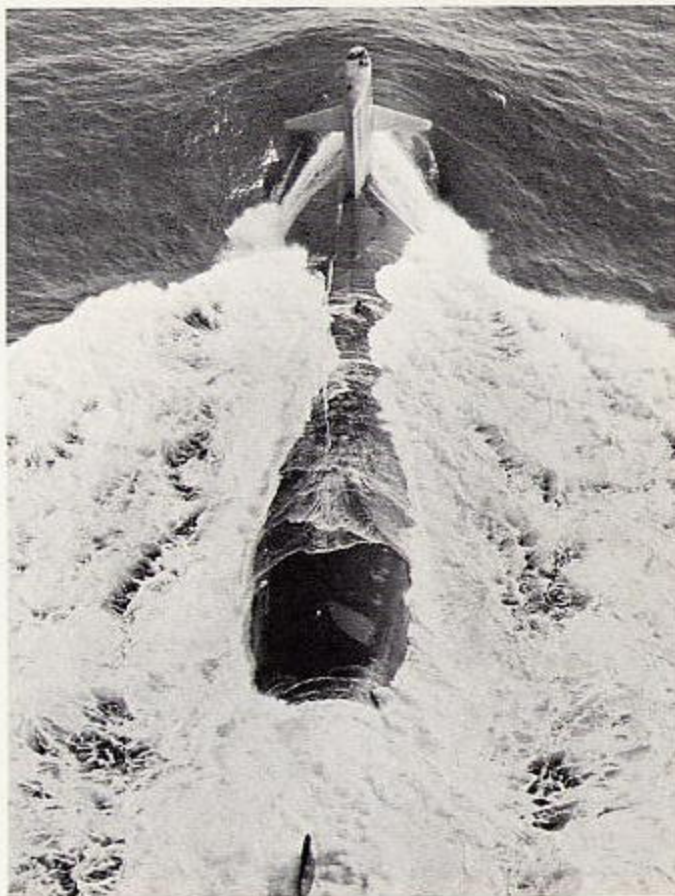
"Consequently we propose to follow two approaches. One is to build a submarine which has a maximum speed and minimum noise. (SSN688 Class)

"Second, with respect to the electric-drive submarine, we would expect to build the quietest submarine that is feasible to build in order to test it in an operational environment and, therefore, develop from these two submarines the best characteristics possible which we can use in later developments in the mid-1970 period and later." (SSN685)

During these same hearings, Admiral Rickover noted: "We need the electric-drive submarine even more today than when it was originally approved . . . if we are to remain competitive with the Soviets in submarines, we must act without the delay which in recent years has characterized our own attempts to improve nuclear submarines."

In 1968, both the House and Senate Armed Services Committees issued reports recommending a continuing nuclear attack submarine construction program, development of a high speed submarine (SSN688 Class), and continuation of the electric-drive submarine project (SSN685).

The Glenard P. Lipscomb (SSN685) is being built as a one of a kind nuclear attack submarine. Its turbine electric drive system in combination with other advanced silencing techniques will provide extremely quiet operation. The lessons learned from this ship will influence future submarine design.



FUTURE NUCLEAR POWERED SUBMARINES

Los Angeles Class High Speed Attack Submarines

The LOS ANGELES Class has higher speed capability than its predecessors; it will also have the most advanced anti-submarine warfare capabilities.

Approval to proceed with this important new class of high speed submarines resulted from investigations of the U. S. Submarine Program conducted five years ago by the House and Senate Armed Services and Appropriations Committees and the Joint Committee on Atomic Energy.

Keels for six LOS ANGELES Class submarines have been laid. A total of 18 have been authorized through fiscal year 1973.

Tactical Cruise Missile Submarines

Development has been started for tactical cruise missiles capable of being launched from our submarines against enemy ships and other targets while remaining beyond the enemy anti-submarine range. The Soviets have 65 cruise missile submarines, 40 of which are nuclear-powered. The United States has none.

TRIDENT Submarines

In his statement to the House Armed Services Committee



Senator Hugh Scott, Vice Admiral H. G. Rickover, Secretary of the Navy John W. Warner and David Lewis, Chairman of the Board, General Dynamics, look on as Mrs. Scott examines her freshly welded initials in the keel section of the USS Philadelphia, first LOS ANGELES Class submarine being built by Electric Boat Division.

on the proposed Fiscal Year 1974 Defense budget, the then Secretary of Defense, Elliot L. Richardson, stated on April 10, 1973:

"To provide for the longer term modernization of the sea-based strategic missile forces, the TRIDENT program is being pursued. The TRIDENT program is designed to ensure the maintenance of an effective sea-based strategic missile force in the future, to provide a significant hedge against the possibility of Soviet technological breakthrough, and to establish an orderly replacement program for POLARIS submarines.

The TRIDENT submarine will provide a launch platform incorporating the latest submarine survivability features when it becomes operational in 1978."

Congress approved funds in Fiscal Year 1973 to procure long leadtime items for the initial TRIDENT submarines. Funds to construct the first TRIDENT submarine and to procure additional long leadtime items for others are included in the proposed Fiscal Year 1974 Defense budget.

Other Nuclear Submarines

Nuclear submarines in commission, listed on the following page, include 41 of the POLARIS/POSEIDON missile-firing type, 60 attack type and one deep-submergence research vehicle. Submarines under construction in addition to the turbine-electric drive submarine GLENARD P. LIPSCOMB (SSN685) are the LOS ANGELES Class and the last four of the STURGEON Class.



NUCLEAR POWERED SUBMARINES IN COMMISSION

NUCLEAR ATTACK SUBMARINES

Nautilus (SSN571)

Seawolf (SSN575)

Skate (SSN578)

Swordfish (SSN579)

Sargo (SSN583)

Seadragon (SSN584)

Skipjack (SSN585)

Halibut (SSN587)

Scamp (SSN588)

Sculpin (SSN590)

Shark (SSN591)

Snook (SSN592)

Permit (SSN594)

Plunger (SSN595)

Barb (SSN596)

Tullibee (SSN597)

Pollack (SSN603)

Haddo (SSN604)

Jack (SSN605)

Tinosa (SSN606)

Dace (SSN607)

Guardfish (SSN612)

Flasher (SSN613)

Greenling (SSN614)

Gato (SSN615)

Haddock (SSN621)

Sturgeon (SSN637)

Whale (SSN638)

Tautog (SSN639)

Grayling (SSN646)

Pogy (SSN647)

Aspro (SSN648)

Sunfish (SSN649)

Pargo (SSN650)

Queenfish (SSN651)

Puffer (SSN652)

Ray (SSN653)

Sand Lance (SSN660)

Lapon (SSN661)

Gurnard (SSN662)

Hammerhead (SSN663)

Sea Devil (SSN664)

Guitarro (SSN665)

Hawkbill (SSN666)

Bergall (SSN667)

Spadefish (SSN668)

Seahorse (SSN669)

Finback (SSN670)

Narwhal (SSN671)

Pintado (SSN672)

Flying Fish (SSN673)

Trepang (SSN674)

Bluefish (SSN675)

Billfish (SSN676)

Drum (SSN677)

Archerfish (SSN678)

Silversides (SSN679)

William H. Bates (SSN680)

Batfish (SSN681)

Cavalla (SSN684)

FLEET BALLISTIC MISSILE SUBMARINES

George Washington (SSBN598)
Patrick Henry (SSBN599)
Theodore Roosevelt (SSBN600)
Robert E. Lee (SSBN601)
Abraham Lincoln (SSBN602)
Ethan Allen (SSBN608)
Sam Houston (SSBN609)
Thomas A. Edison (SSBN610)
John Marshall (SSBN611)
Lafayette (SSBN616)
Alexander Hamilton (SSBN617)
Thomas Jefferson (SSBN618)
Andrew Jackson (SSBN619)
John Adams (SSBN620)
James Monroe (SSBN622)
Nathan Hale (SSBN623)
Woodrow Wilson (SSBN624)
Henry Clay (SSBN625)
Daniel Webster (SSBN626)
James Madison (SSBN627)
Tecumseh (SSBN628)

Daniel Boone (SSBN629)
John C. Calhoun (SSBN630)
Ulysses S. Grant (SSBN631)
Von Steuben (SSBN632)
Casimir Pulaski (SSBN633)
Stonewall Jackson (SSBN634)
Sam Rayburn (SSBN635)
Nathanael Greene (SSBN636)
Benjamin Franklin (SSBN640)
Simon Bolivar (SSBN641)
Kamehameha (SSBN642)
George Bancroft (SSBN643)
Lewis and Clark (SSBN644)
James K. Polk (SSBN645)
George C. Marshall (SSBN654)
Henry L. Stimson (SSBN655)
George Washington Carver (SSBN656)
Francis Scott Key (SSBN657)
Mariano G. Vallejo (SSBN658)
Will Rogers (SSBN659)

RESEARCH SUBMARINE

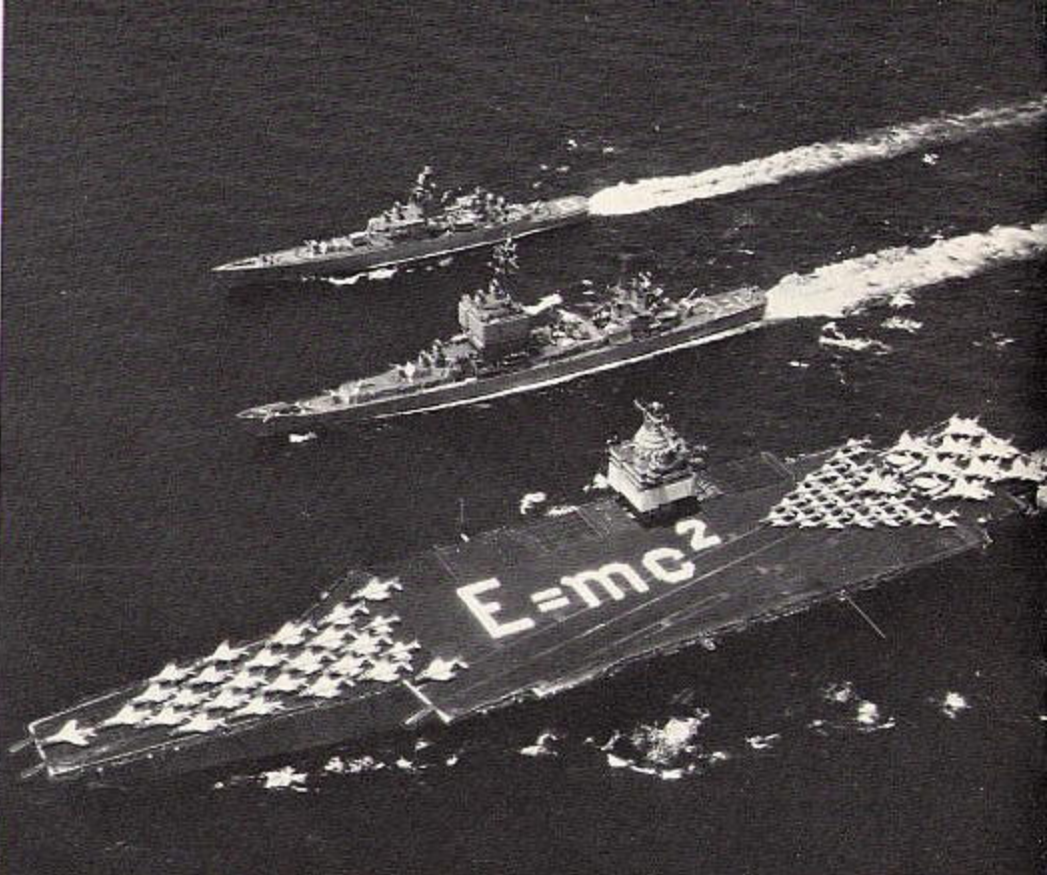
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NUCLEAR POWERED SURFACE SHIPS

	Ship Authorization	Ship Delivery
AIRCRAFT CARRIERS		
USS Enterprise CVAN65	1958	1961
USS Nimitz CVAN68	1967	1973
USS Dwight D. Eisenhower CVAN69	1970	1975
Unnamed CVN70	1974	1980
GUIDED-MISSILE CRUISERS		
USS Long Beach CGN9	1957	1961
GUIDED-MISSILE FRIGATES		
USS Bainbridge DLGN25	1959	1962
USS Truxtun DLGN35	1962	1967
USS California DLGN36	1967	1973
USS South Carolina DLGN37	1968	1974
USS Virginia DLGN38	1970	1975
USS Texas DLGN39	1971	1976
Unnamed DLGN40	1972	1976
Unnamed DLGN41		
Unnamed DLGN42		

Advanced procurement funds for DLGN's 41 and 42 were appropriated in the FY's 1970-71 shipbuilding programs. In May 1971, the Defense Department announced that these two frigates are not to be built. House Armed Services Committee Report #92-1149 of June 19, 1972, on the Fiscal Year 1973 defense procurement authorization bill, "directed" the Department of Defense "to review planned shipbuilding programs with the aim of re-starting the nuclear frigate construction program next year."



USS LONG BEACH (CGN-9) — USS ENTERPRISE (CVAN-65) — USS BAINBRIDGE (DLGN-25) Nuclear Task Force One Shown at the start of its historic 30,000-mile cruise around the world in 1964.

UNITED STATES AND SOVIET NAVIES

(Based on unclassified data released
by U.S. Navy dated June 1973)

SUBMARINES

	SOVIET	U.S.
Ballistic Missile	60*	41
Attack	215	84
Cruise Missile	<u>65</u>	<u>0</u>
Total:		
Nuclear	110	101
Nonnuclear	<u>230</u>	<u>24</u>
Grand Total	about 340	125

*Includes 30 modern YANKEE Class submarines

U.S.S.R. MAJOR SURFACE COMBATANTS

Helicopter Carriers	2
Cruisers	28
Frigates	20
Destroyers	58
Ocean Escorts	<u>105</u>
Total	213

NOTE: The USSR currently has two aircraft carriers under construction

U.S. MAJOR SURFACE COMBATANTS

Attack Carriers	14
Antisubmarine Carriers	2
Helicopter Carriers	7
Cruisers	9
Frigates	28
Destroyers	100
Ocean Escorts	<u>66</u>
Total	226

U.S.S.R. MINOR COMBATANTS AND SUPPORT SHIPS

Missile Patrol Craft	135
Other Patrol Craft	415
Amphibious Ships	105
Mine Warfare Ships	280
Auxiliaries	<u>700</u>
Total	1,635

U.S. MINOR COMBATANTS AND SUPPORT SHIPS

Missile Patrol Craft	0
Other Patrol Craft	15
Amphibious Ships	60
Mine Warfare Ships	15
Auxiliaries	<u>149</u>
Total	239



"A superior defense posture is required as a bulwark against the forces of aggression for the protection and security of our citizens and the free world."

The Honorable Glenard P. Lipscomb