

WELCOME ABOARD



USS DOLPHIN (AGSS555) is a unique deep diving research submarine, designed to test advanced submarine structures and systems. She serves as a platform for underwater research at depths greater than previously possible with a vehicle of this type and size. In fact, DOLPHIN is designed for operation to a depth in excess of that of any known operational submarine. In November 1968 she set a depth record for operating submarines that still stands and in August 1969 launched a torpedo at the deepest depth one has ever been fired.

Many Navy and civilian activities utilize DOLPHIN for testing a multitude of technologically advanced and complex equipments. These tests are being conducted in several "phases". The construction and shakedown trials and initial phase of weapons, weapons launcher and acoustic trials have been completed successfully. DOLPHIN is now configured to do extensive acoustic research in deep waters, oceanic survey work, combined weapon, launcher, and sensor trials, and engineering evaluations. The current series of operational tests and trials are being conducted under the supervision of Submarine Development Group ONE and the Navy Underseas Research and Development Center, San Diego, California.

Although DOLPHIN's primary mission is oriented towards the military, this can be very misleading. DOLPHIN's size, with a displacement of over 900 tons, is impressive when compared to other research vehicles currently operating or being built. For example, the combined displacement of TRIESTE, ALUMINAUT, ALVIN, DEEP QUEST, DEEP STAR - 20,000, TURTLE, and STAR I, II, and III is about 250 tons about 1/4 the displacement of DOLPHIN. This large size enables DOLPHIN to possess many characteristics highly desirable in a deep diving vehicle. For instance, DOLPHIN has an internal "scientific" payload in excess of 12 tons. This is twice the total combined payload for all the other aforementioned research vehicles, it will enable scientists to have laboratory facilities "in situ" to study first hand the oceans that cover 70% of our earth.

The real importance of DOLPHIN in the field of the ocean sciences however is her very existence. Until DOLPHIN, most deep diving vehicles were restricted not only in size but also in capabilities. DOLPHIN's design engineers have solved hull penetration and other problems which have been major restrictions in the past. The propulsion motor is large, inside the ship, and capable of delivering over 1500 horsepower. Surfaced, DOLPHIN's propulsion comes from two

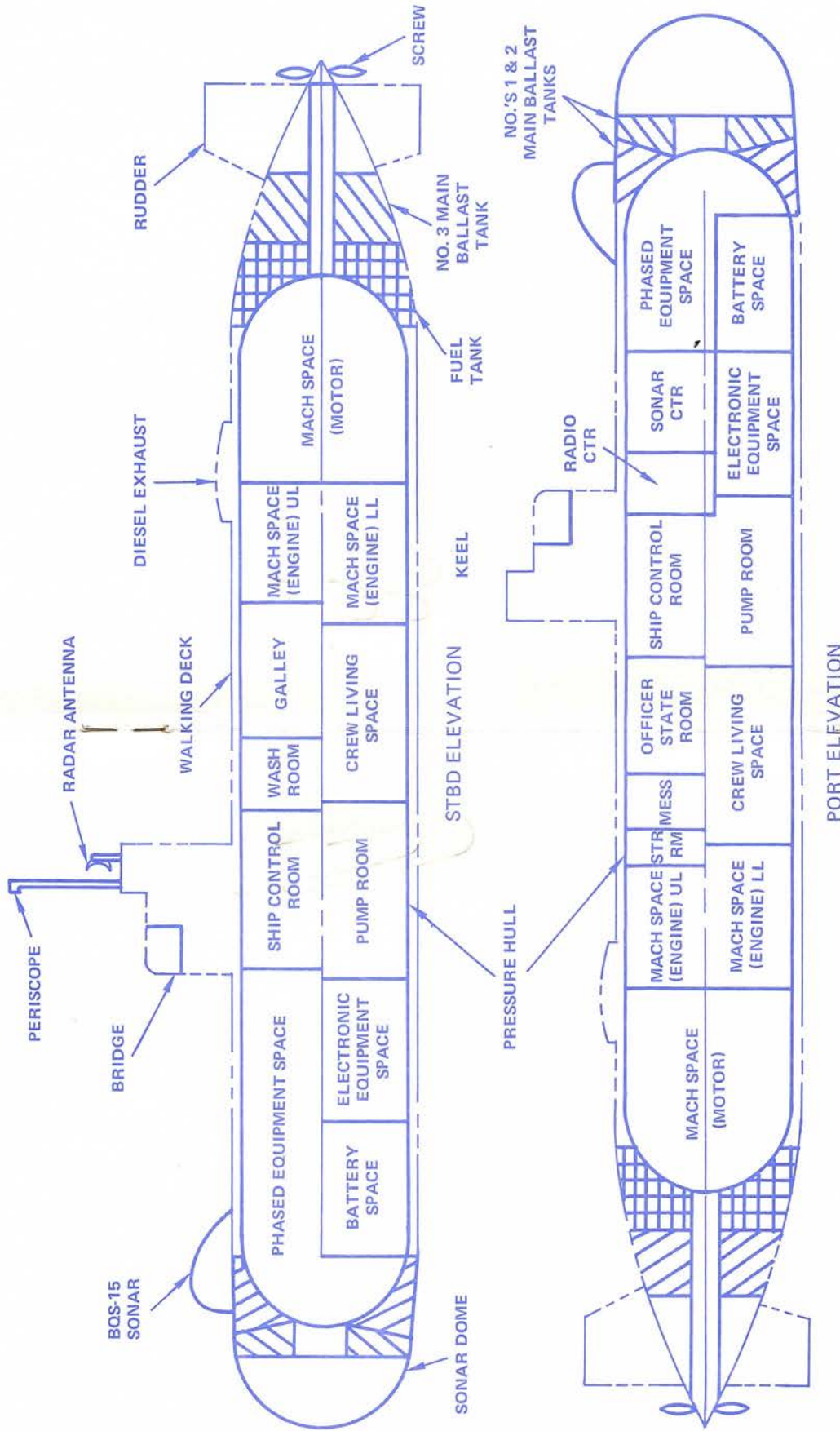
diesel generator sets. Submerged, propulsion comes from the latest type silver-zinc batteries which are charged by her generators. Thus, DOLPHIN is capable of independent operations and does not require a mother ship to tow or carry her to any destination. Solution of these problems enables DOLPHIN, and hence other deep diving submarines of the future, to possess the strength of construction, endurance, mobility, and the operating abilities highly desirable in an oceanographic research vehicle. We feel it is most appropriate that the Navy's DOLPHIN is leading the way in the conquest of the ocean depths.

DOLPHIN has berthing for 3 officers, 20 men and 4 scientists. The galley is modelled after those used in a modern jet aircraft. The ship has a distilling unit capable of making 500 gallons of fresh water a day and can store sufficient food to remain at sea for several weeks.

DOLPHIN, which has as much sonar equipment as the biggest Polaris missile submarines, has more sonar per ton of displacement than any other submarine in the world. The entire bow area is devoted to sonar, some of which can be seen topside.

An unusual advanced concept incorporated in DOLPHIN is her skin cooling system. Fresh water from the ship's pumps is fed to panels located against the hull amidships. This water is cooled by the hull which conducts heat to the sea water surrounding the hull. This system eliminates the need to bring cooling sea water in pipes into the ship when submerged and therefore improves the safety of the ship. The trim and drain system used in pumping sea water out of the ship or flooding some in to control ballast is equipped with an automatic closure device. If the water flow rate in this system increases to a high level, such as would occur in the event the piping leaked at a great depth, the hull valves are ordered shut by an automatic sensing control device and the flow of water ceases.

Another feature which we hope has not inconvenienced you too much is the access into the ship. Because we go so deep, where the pressures are so great, it is best to keep any irregularities in the hull, such as hatches, to a minimum. Consequently, we only have one hatch - but you are welcome down it anytime. Come again. We hope you enjoyed your visit. We certainly enjoyed having you.



DOLPHIN ARRANGEMENT OF SPACES

DATA OF INTEREST

Designed and built by:

Portsmouth Naval Shipyard
Kittery, Maine

Keel Laid: 9 November 1962
Launched: 8 June 1968
Commissioned: 17 August 1968
First Dive: 27 September 1968
First Test Depth Dive: 24 November 1968

Converted: Portsmouth Naval Shipyard
October 1969 to August 1970

Transferred to San Diego: 7 November 1970

Commanding Officers:

1968 - 1970 CDR John R. MC DONNELL, USN
1970 - 1972 CDR John R. SEESHOLTZ, USN
1972 - Present CDR Eugene E. LINDSEY, USN

USS DOLPHIN is the seventh ship in the U.S. Navy to be named DOLPHIN. The first DOLPHIN participated in raids against England during the Revolutionary War, while the sixth was a submarine which saw action in World War II.



COMMANDER EUGENE E. LINDSEY, JR.
COMMANDING OFFICER USS DOLPHIN (AGSS-555)

Commander Eugene E. LINDSEY, Jr., graduated from the U. S. Naval Academy in 1958. After serving in USS COMPTON (DD-705), he attended submarine school and upon completion in June 1960, he was assigned to USS BARBERO(SSG-317). Subsequent assignments included Navigation School, Dam Neck, Va.; Commissioning Crew USS JAMES MONROE (SSBN-622); Submarine School, New London, Conn.; Commissioning Crew USS DOLPHIN (AGSS-555); U. S. Air Force Command and Staff College; and Commander Submarine Force Atlantic Fleet Staff.

In 1970 Commander LINDSEY earned a Master of Arts Degree in Business Administration from Auburn University.

Commander LINDSEY is married to the former Elizabeth Brody of Watertown, Connecticut. They have three children; Skip, Doug, and Ann.

