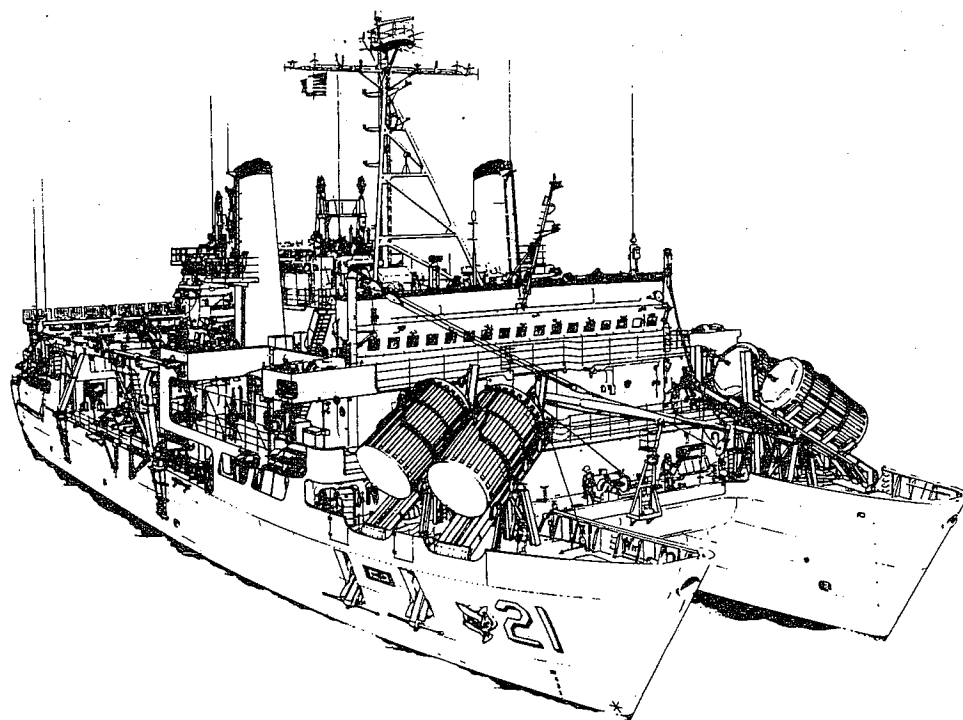
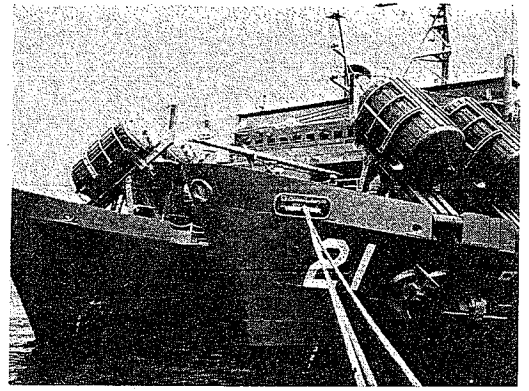


WELCOME
ABOARD



USS PIGEON
ASR-21

WELCOME ABOARD



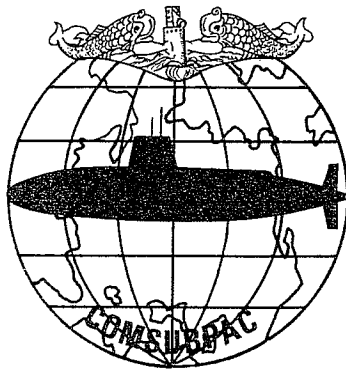
I am pleased to welcome you aboard United States Ship PIGEON (ASR-21) on behalf of Commander, Submarine Force, United States Pacific Fleet.

PIGEON is a Submarine Rescue Ship of the U. S. Pacific Fleet's ready force. She is prepared to respond at any time, should a submarine disaster occur. Additionally, she provides the Fleet with a wide range of deep ocean search, location and recovery services. PIGEON is a magnificent and fully capable fleet asset.

PIGEON, her 10 officers and her 186 enlisted crew member, stand ready to perform their mission anywhere in the world, whenever tasked. Homeported in San Diego, PIGEON is a unit of Commander, Submarine Development Group ONE and is under the operational control of Commander, Submarine Training Group, West Coast.

I sincerely hope that you enjoy your visit aboard our ship, and that you will carry away with you a better understanding of a Submarine Rescue Ship and of the United States Navy.

C. I. DUCHOCK, Jr
Commander, U. S. Navy
Commanding Officer



THE MISSION

The primary mission of PIGEON is to locate and rescue personnel entrapped in a sunken submarine, using either a Deep Submergence Rescue Vehicle or the conventional McCANN Submarine Rescue Chamber.

Alternative mission areas employ PIGEON as a deep submergence support ship and ocean engineering platform capable of working in the deep ocean, and as a limited repair/logistic support platform for submarine and surface ships.

The goal is to employ the men, ship and embarked systems as a totally integrated, functional unit.

THE DEEP SUBMERGENCE RESCUE SYSTEM

PIGEON is a major element of the Deep Submergence Rescue System, and is equipped to transport, launch and recover the sophisticated Deep Submergence Rescue Vehicles MYSTIC and AVALON (DSRV-1 and DSRV-2) during submarine rescue missions down to the crush depth of our fleet submarines.

The crews of DSRVs MYSTIC and AVALON maintain their vehicles at the Submarine Rescue Unit in San Diego. The DSRVs can be transported by air to the port nearest a disaster and can be supported by one of two PIGEON class Submarine Rescue Ships (ASRs) or by nuclear attack submarines (SSNs) specially configured as "Mother Submarines".

PIGEON is equipped as a command and control platform for surface-supported deep submergence operations. Her sensor suite is designed to provide the tactical data required for real-time control of the rescue or sonar tracking mission and includes one of two copies of a high resolution Three Dimensional (3-D) Sonar Tracking System. An Underwater Surveillance System enables television monitoring of DSRV submerged launch and recovery which occurs at 125 feet below the surface and employs the massive electro-hydraulic Bridge Crane Weight Handling System rated at 165,000 pounds.

SHIP CHARACTERISTICS

Displacing 4950 tons at full load, PIGEON is 251 feet in length overall, with a molded beam of 86 feet and has a navigational draft of 28 feet 6 inches.

PIGEON's four ALCO Main Propulsion Diesel Engines enable a top speed of 15 knots and a cruising range of 13,800 nautical miles at 11.5 knots. These twelve cylinder engines, two per hull, are equipped with controllable pitch propellers and computerized Automatic Propulsion Systems capable of independent operation and allowing high maneuverability. Her engineering plant provides the electrical power, steam, potable water, air conditioning and refrigeration, and sanitary system that supplies hotel services for the 196 man crew and services for the life support of the aquanauts of the saturation Deep Diving System MK 2 MOD 1.

In support of her deep ocean missions, PIGEON is equipped with modern radio, radar, electronic navigation and underwater communications equipment. Able to execute a precision four-point moor in depths as great as 1200 feet, PIGEON's capabilities also include: diving; deep ocean search, location and recovery; deep submergence vehicle (DSV) support; acoustic navigation and positioning, submarine sea trial escort, target and weapons recovery services; and open ocean towing.

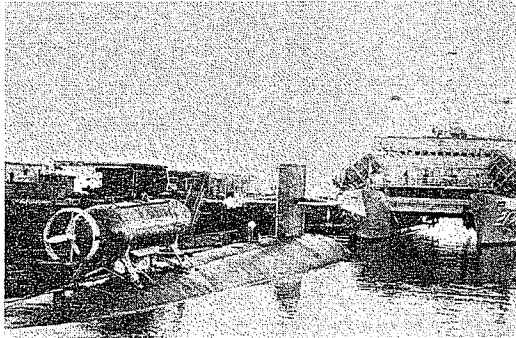
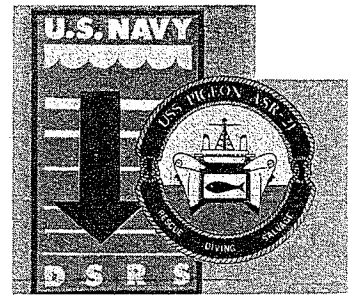
PIGEON maintains a full battery of diving capabilities ranging from SCUBA, Deep Sea Air and Mixed Gas, to saturation diving.

DEEP DIVING SYSTEM MARK 2 MOD 1

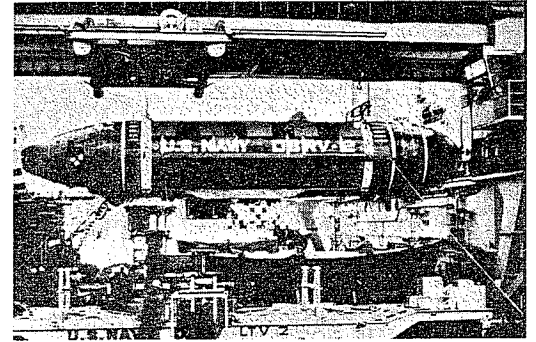
The Deep Diving System (DDS) MK 2 MOD 1 is a dual-complex saturation diving system capable of supporting a six man dive team during a working dive of up to 14 days to a depth of 850 feet. Saturation diving maximizes effective diver work hours by maintaining the divers onboard ship in a Deck Decompression Chamber (DDC) at a pressure equivalent to the depth of the work site.

Excursions from the surface to depth employ a pressurized elevator or "Personnel Transfer Capsule" (PTC). At depth, the aquanauts swim out of the capsule to accomplish their deep ocean task. In this manner, the divers live inside a safe, dry chamber onboard ship between dives, thereby eliminating the hazardous and lengthy in-water decompression between working dives. The decompression from 850 feet requires up to eleven days!! PIGEON's DDS MK 2 MOD 1 is the first and only saturation diving system on a commissioned United States naval vessel that is certified for manned use.

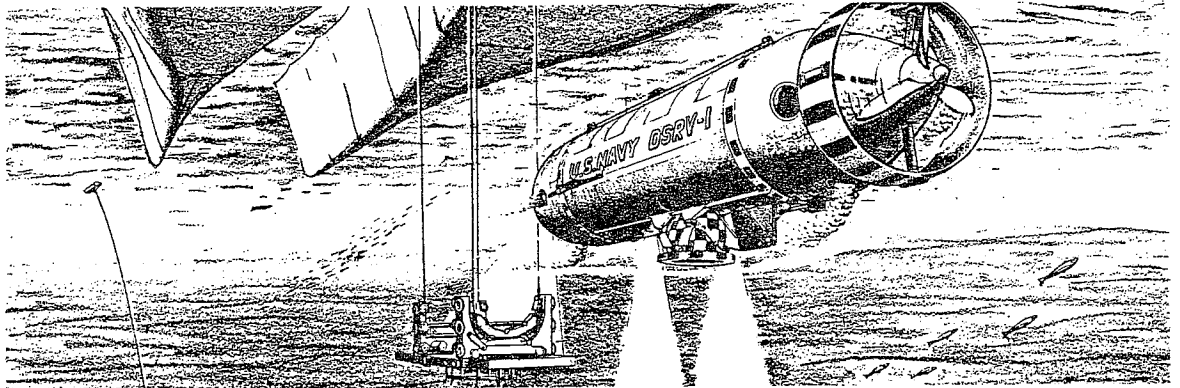
DEEP SUBMERGENCE RESCUE SYSTEM



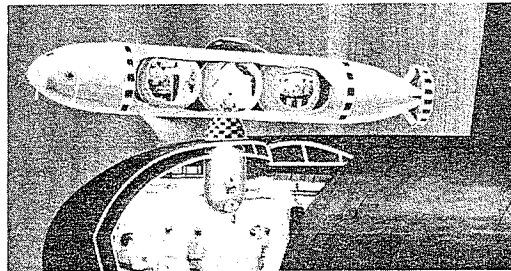
Mother Submarine—DSRV—ASR-21



Loading the DSRV Aboard ASR-21



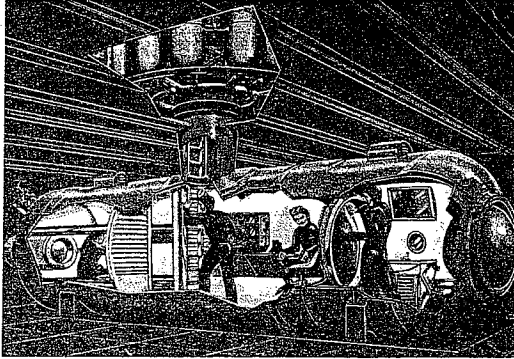
Submerged Launch of the DSRV from PIGEON



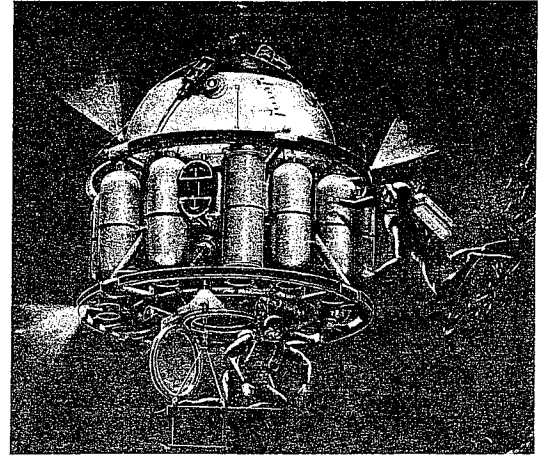
The DSRV "mated" to a distressed submarine



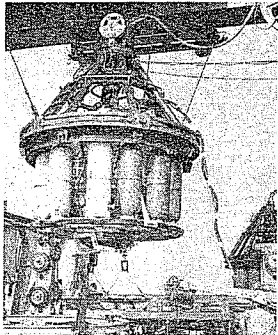
DEEP DIVING SYSTEM MK 2 MOD 1



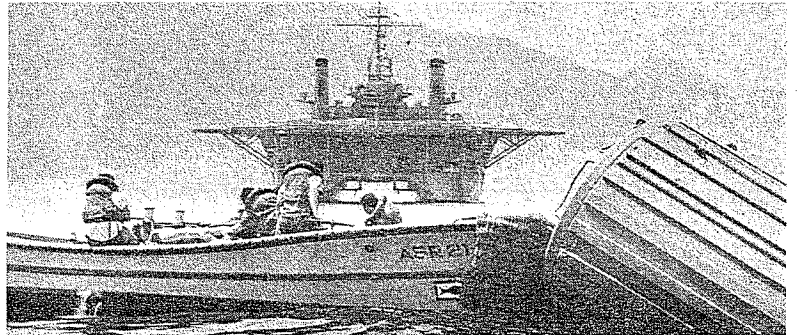
Deck Decompression Chamber (DDC)



Personnel Transfer Capsule (PTC)



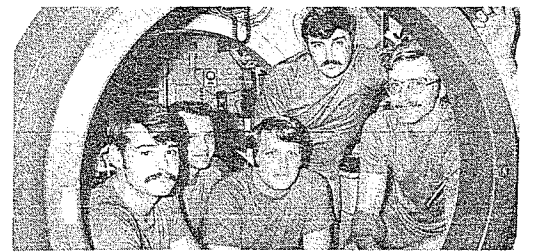
Launching the PTC



Precision Four-Point Mooring



Team One: 850' Certification Dive



Team Two: 850' Certification Dive

HISTORY AND HERITAGE

United States Ship PIGEON (ASR-21) is the first ship of a new generation of submarine rescue vessels. Uniquely, the PIGEON is a catamaran, or twin-hull, the first contracted for the Navy since Robert Fulton's twin-hulled steam warship DEMOLOGUS which was constructed at the close of the "War of 1812". PIGEON is the first submarine rescue vessel designed specifically for the role and is the forerunner of future Navy deep submergence support and ocean engineering platforms.

USS PIGEON (ASR-21) is the third ship of the fleet to bear the name. She is named in commemoration of Submarine Rescue Ship PIGEON (ASR-6), a Bird Class Minesweeper who distinguished herself on the Yangtze River Patrol prior to conversion for submarine rescue duty. Earning two Presidential Unit Citations for extraordinary heroism under enemy fire in the defense of the Philippine Islands during World War II, she continued her heroic service until sunk by enemy air action on 4 May 1942.

"The courage, spirit and efficiency of the PIGEON crew is believed unsurpassed by past, present or any future crews of any vessel of any nation."

LCDR Richard HAWES, USN
CO PIGEON (ASR-6) December 1941

USS PIGEON (ASR-21), built by the Alabama Dry Dock and Shipbuilding Company of Mobile was delivered to Hunters Point Naval Shipyard in San Francisco, California for fitting out. Commanded by Lieutenant Commander James J. McDERMOTT, USN, PIGEON was placed "in commission-special" on 28 April 1973. The experimental hull design, built to support the still experimental Deep Submergence Rescue Vehicle, then entered a demanding period of testing, evaluation, and shipyard availabilities that extended well into the command tour of her second commanding officer, Commander W. James DOYLE, USN. During that period of time, PIGEON and her crew served as the surface support platform for the Operational Evaluation of the Deep Submergence Rescue System. Coming of age, PIGEON commenced her operational cycle, building an enviable reputation of excellence. In command during this period of exciting operations and historic successes was Commander Albert J. SMITH, USN. PIGEON was finally able to exercise her many varied capabilities when the Deep Submergence Rescue System achieved Fleet acceptance.

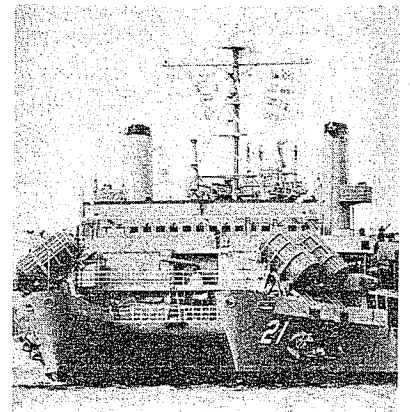
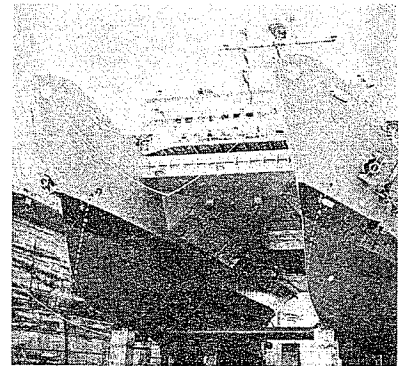
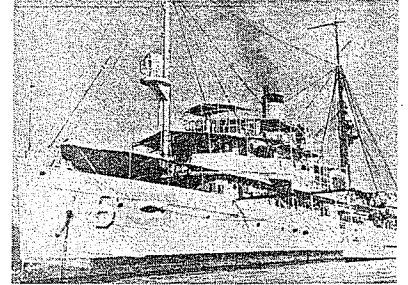
USS PIGEON (ASR-21) has proven her capability to rescue personnel from a sunken submarine by successfully completing three simulated submarine rescue missions to date.

PIGEON has developed innovative tactical employment techniques for her unique computerized acoustic command and control system: The Three Dimensional (3-D) Sonar Tracking System. She accomplished the first open ocean 3-D sonar tracking of a fleet submarine on sea trials.

PIGEON is the first commissioned United States naval vessel to complete the rigorous requirements for system certification of a saturation diving system. The Deep Diving System MARK 2 MOD 1 is certified for manned use to a depth of 850 feet.

PIGEON successfully completed the Navy's first open ocean working saturation dive to recover a turbo-engine and ejection seat from a F-14 jet fighter aircraft that crashed in 730 feet of water.

PIGEON has provided services to the Deep Submergence Vehicle SEA CLIFF (DSV-4) proving yet another operational capability.





COMMANDER CHARLES J. DUCHOCK, JR., USN

Commander Charles J. DUCHOCK, Jr., is the son of Mary Duchock and the late C. J. Duchock, Sr. of Birmingham, Alabama. CDR DUCHOCK enlisted in the U. S. Navy in 1959 upon graduation from John Carroll High School. After completion of training, he served on board USS INTREPID (CVA-11) until his selection for the NESEP program in 1961. CDR DUCHOCK graduated from Auburn University in 1964 with a Bachelor of Science degree in Mathematics. After attending OCS at Newport, Rhode Island and Submarine School at New London, Connecticut, he reported to USS PICKEREL (SS-524) in 1965. During his tour in PICKEREL, he completed his qualification in submarines. He then served in USS GUDGEON (SS-567) from 1967 until 1970 when he reported to the U. S. Naval Postgraduate School at Monterey, California. Upon obtaining his Master of Science Degree in Physical Oceanography in 1972, he reported to USS SALMON (SS-572) and served in her until 1974. His next tour was again in USS GUDGEON (SS-567) for duty as Executive Officer until 1975. CDR DUCHOCK then served as Chief Instructor Navy at the Australian Joint Anti-Submarine School at HMAS ALBATROSS in Nowra, Australia until reporting to the Naval School of Diving and Salvage, Washington, D.C., in 1978 for training as a Deep Sea (HeO2) Diving Officer.

CDR DUCHOCK is married to the former Shirley Templeton of Decatur, Alabama. They have two daughters, Diedra Ann (born October 1965) and Sherrill Lynn (born October 1967).



THE BLACK-FISH INSIGNIA

In 1882, a diving school was established at the U.S. Naval Torpedo Station in Newport, Rhode Island by retired Chief Gunner's Mate, Jacob Anderson. Chief Anderson trained volunteer divers by recovering practice torpedoes fired from the station's tubes. The divers devised and displayed a flag from their boat to signify the recovery of torpedoes. This flag was a black torpedo-like symbol against a white background with a red border. The nickname "fish" was given to the torpedo, thus changing the flag to a fish resembling a torpedo.

At the start of the twentieth century, our first submarine was commissioned and went to sea to conduct trials. Along with her went a small craft with an important mission: to standby in case of an emergency while the submarine was submerged; to act as a safety vessel by patrolling the operational area to warn ships and other smaller craft to keep clear of the submarine operating area; and, to recover practice torpedoes fired by the submarine. Since there was no flag signal identification this early in the century, the black-fish flag insignia was displayed by all ASR's. ASR's took up the role as "guardians of submarines", and adopted the "black-fish insignia" beside their hull numbers as a proud and lasting display of their mission. Modern ASR's are still authorized to display this special insignia.

