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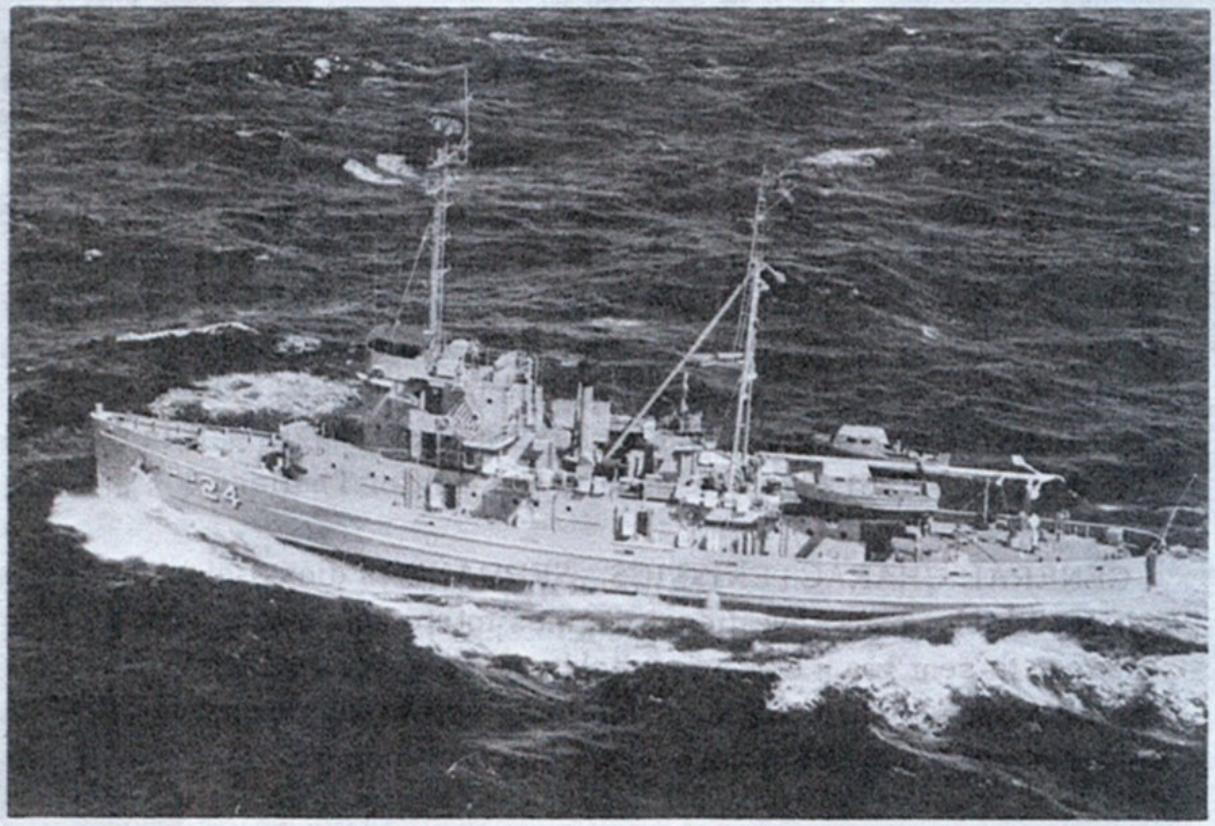
# USS SERRANO (AGS 24)

## CHARTING FOR THE FUTURE



WELCOME ABOARD! The officers and men of SERRANO take great pleasure in saying, "WELCOME ABOARD". We sincerely hope that our visit to your city will result in many opportunities for us to learn something of your customs and traditions and also a chance for you to learn something about us, our ship, and our work here in your part of the world. In this folder we wish to present some information about our ship and our work. We hope you will find this interesting.

PERSONNEL. The ship's company consists of about 75 enlisted men and 7 officers. In addition we often carry several civilian scientists. We don't have representation from all 50 United States in our ship's company, but we do have a good cross section. Probably the largest group is from the states of our Eastern seaboard. Most of our enlisted men are on their first enlistment, generally of four years. Statistics show that about half will volunteer to remain in the naval service while the other half will return to civilian life.

SHIP'S HISTORY. SERRANO was named after an American Indian tribe located in the southwestern section of our country. The name is of Spanish origin. She (we traditionally refer to ships in the feminine gender) was built at the United Engineering Company, Alameda, California and commissioned a fleet tug, (ATF-112), on 22 September 1944. She was decommissioned in the month of June 1950 and in June 1960 was taken out of storage, converted, and recommissioned as (AGS-24). Many of the personnel now on board worked extra hours to complete the conversion in order that SERRANO might sail in time for the 1960 - 1961 survey season in the Gulf of Thailand.

GENERAL CHARACTERISTICS. SERRANO is diesel-electric drive, which means that diesel engines rotate generators whose current is sent via a control switchboard to a motor which is fixed to the propellor shaft. We have one large screw and one rudder, displace about 1,600 U.S. tons and are 205 feet long.

U.S.NAVY HYDROGRAPHIC OFFICE. This agency, located just outside Washington, D.C. in the State of Maryland, exercises technical control over U.S.Navy survey operations. It supplies SERRANO with survey specifications and special equipment and assigns civ-

ilian scientists to her when the scope of the work is beyond the technical education of the ship's company. The Hydrographic Office is also the producer of many charts and publications available to anyone through Branch Hydrographic Offices or Sales Agents who are located all over the world. Data collected by SERRANO are sent to the Hydrographic Office where it is processed and fed into various projects being conducted there. This agency was recently assigned management control of the newly founded United States National Oceanographic Data Center, located in Washington, D.C.

OUR WORK. We are sent out to acquire new oceanographic and hydrographic data for use by the Hydrographic Office and the Oceanographic Data Center. The hydrographic data generally consists of a series of soundings of the sea bottom coupled with an accurate position for each sounding. To accomplish this we are equipped with four echo sounders capable of recording depths from 5 feet to 6.000 fathoms and two electronic positioning devices, SHORAN and LORAC. Other electronic positioning devices could be substituted without much bother. The rough tracks obtained in our data-gathering center, the Chart House, are sent to our Drafting Room where a neat reproduction is made.

The oceanographic data we seek are analyses of water samples for oxygen and mineral content, bottom samples and current readings. To obtain these we are equipped with an oceanographic winch, capable of lowering a bottom sampler or corer to 29,000 feet. This winch also lowers Nansen bottles to obtain water samples. There are two more winches, one for lowering current meters and one to lower a bathythermograph. All winches are located on the after part of the main deck called the "fantail". The oceanographic laboratory is located adjacent to the drafting room. Here salinity of sea water is determined by a special salinity bridge, which relates electrical conductivity of a sample to its salt content. A Beckman spectrophotometer analyses samples for their nutrient content while mineral and oxygen content are determined by chemical analysis.

We sincerely believe that the data gathered by SERRANO and used in the advancement of science are of great importance and value to humanity at large. We are happy to be able to make this contribution.