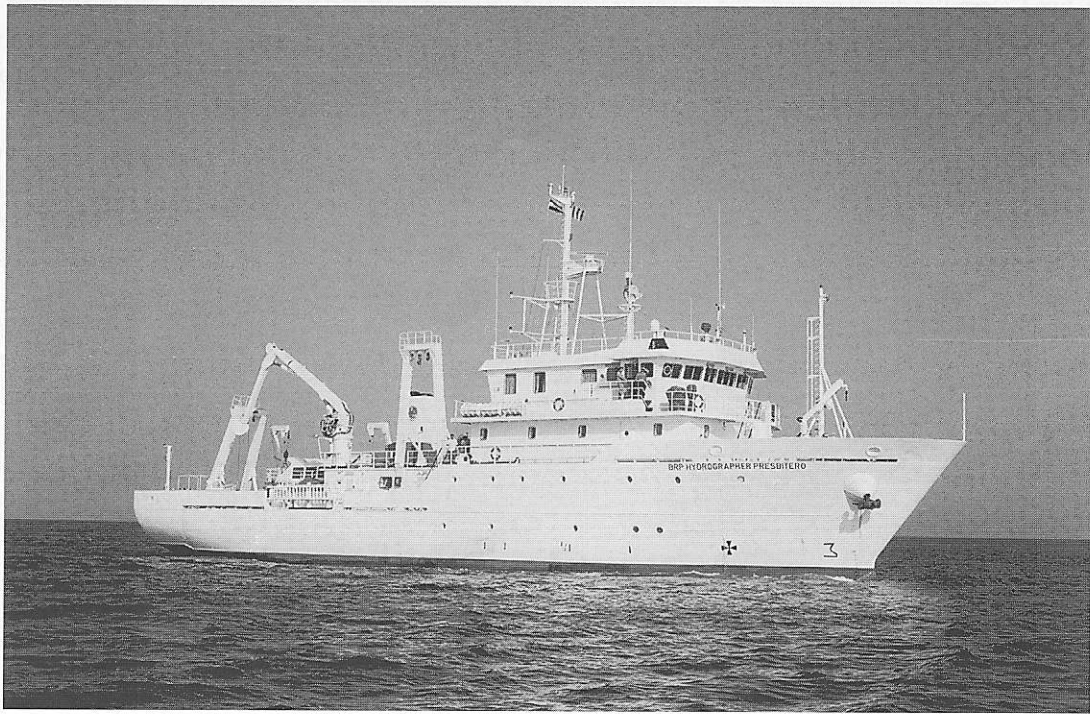


NEW SURVEY VESSELS OF THE PHILIPPINES



NAMRIA's new survey vessel "BRP Hydrographer Presbitero"

The National Mapping and Resource Information Authority (NAMRIA), an agency under the Department of Environment and Natural Resources of the Philippines has recently procured two new multi-purpose survey vessels.

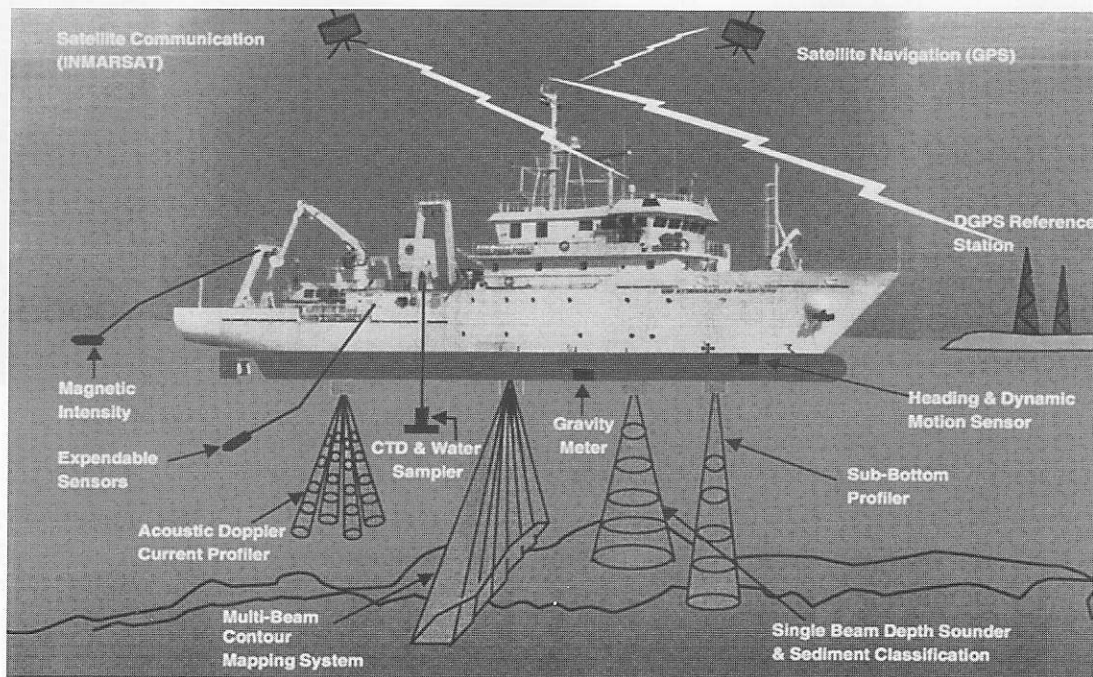


Image chart of Observation and Survey Equipments on the New Survey Vessel

These two identical vessels having a length of 53.5 meters and a maximum speed of 13 knots were designed and built by Factories Vulcano in Vigo, Spain according to and under the close watch of Det Norske Veritas(DNV). Delivery took place in October 1998 for BRP Hydrographer Presbitero, the first ship and three months after for BRP Hydrographer Ventura, the other ship. Both vessels were commissioned a few weeks after the delivery.

Powered by two Caterpillar diesel engines, the survey vessels are designed to undertake specifically the submarine topographic and geological surveys, geomagnetic and gravity measurements and other scientific investigations within Philippine waters. In addition to its mission, both are task to carry out oceanographic observations and pollution monitoring, coastal and offshore hydrography; and location of objects on the seafloor which are potential hazards to navigation.

The ships are equipped with modern navigational equipment and the latest innovation and sophisticated survey/observation instruments such as GPS/DGPS for ship's positioning, Multi-beam sonar, Bottom Profiler, Current Profiler and other sensors, linked by Integrated Survey System ISS-2000, a network-based software system developed by Science Applications International Cooperation for the latest generation of hydrographic and multi-beam survey system. Each vessel has also one motor launch and one skiff fitted with survey instruments for conducting surveys in shallow waters.

The personnel of Hydrographic and Geodetic Surveys Department of the NAMRIA man the two vessels. Presently, various survey activities are being undertaken by the two ships both collaborative and NAMRIA's projects.

JICA INDIVIDUAL TRAINING IN HYDROGRAPHIC SURVEY(BASIC MAP)



Courtesy call on Chief Hydrographer, Mr. Jung, Hyun (right)

An individual training in Hydrographic Survey(Basic Map) was carried out at JHD for Mr. Jung, Hyun, Hydrographic Engineer, National Oceanographic Research Institute(NORI), Republic of Korea, from 26 January to 4 February 1999. His training programme composes the lectures on narrow multi-beam, echo sounder, data processing and observation tour of S/V SHOYO(3000 G/T).