

'BAP Carrasco': Peruvian Oceanographic Vessel with Polar Capacity



The Peruvian Navy, Directorate of Hydrography and Navigation is realising a hydrographic and oceanographic vessel, designed and built by Freire shipyard in Vigo, Spain. Its structural design achieves the Polar Class 7 (PC7) requirements of the DNV-GL classification society, which allows the vessel to navigate in polar areas during the austral summer. It was launched to sea in 2016 and is expected to start operations in 2017. The design of 'BAP Carrasco' (BOP – 171) is similar to the research vessel RRS 'Discovery UK'.

BAP Carrasco measures 95.3m in length, has a beam of 18.0m and max draft of 5.95m. The cruising speed is 16kn. She can house up to 50 crew and 60 scientists during 51 days.

Survey Equipment

BAP Carrasco is intended to operate as a multipurpose scientific platform and thus, to maintain international standards used by the most modern research vessels in the world.

The DP2 vessel is provided with a Kongsberg EM122 deepwater multibeam echosounder (up to 11,000m depth) and Kongsberg SBP120 sub-bottom profiler. For the purpose of deepwater biological research, a Kongsberg EK-80 fishing echosounder has been installed. The collected data can be used for several other fields of science, such as oceanography, geology, geophysics, metallurgy, among others; in that sense, these devices will allow universities and related institutes, to carry out scientific research works related to those fields.

There are 2 Kongsberg AUVs on board – each of one with an autonomy of 24 hours and equipped with temperature, conductivity and current profilers and a multibeam echosounder up to 3,000m depth. Additional to this, a Saab Seaeye Falcon DR ROV is onboard, depth-rated to 1,000m. Add to this a heli deck and two RIBs for SAR duties.

There is a hydrographic survey laboratory for bathymetric data editing and processing; a chemistry laboratory for sampling research; wet and dry laboratory and a oceanography and marine geology laboratory. Seven laboratories are located on the main deck and one of them is located on deck No. 1. All of them integrated and ready to receive information from the corresponding equipment installed on board. Furthermore, since the vessel can host 2 containers of a TEU each, they can be used as temporal specific laboratories.

Cargo Capacity

BAP Carrasco has a substantial cargo capacity. It has three cranes, located at stern, center and bow of the vessel, that allow it to transport material to its more than 560 m³ of storage capacity, distributed along the bow and stern of the unit.

A point for consideration is that the ship has the capacity to transport 2 containers of a TEU each, making possible to increase its storage capacity if required. In this case, the bow crane would be used since it can handle up to 14 tons of cargo.

As far as boats are concerned, the ship has the capacity to host a hydrographic vessel on its main deck, which will allow to increase the operation range for bathymetric surveys in shallow waters or any other scientific required task.