## THE HYDROGRAPHIC AUXILIARY VESSELS "ASTROLABE" AND "BOUSSOLE"

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The French Navy has just constructed two identical vessels designed to bring the hydrographic fleet up to strength as this fleet, particularly overseas, had been progressively reduced.

These vessels are visualised as auxiliaries to larger vessels. In point of fact it has been decided to fit them out with reduced equipment, although sufficient to allow them to carry out all the operations of a hydrographic survey on their own. Thus each carries two launches, a drag capable of being operated from these launches, and hydrographic winches; further-



FIG. 1. — The *Boussole* on the day of her launching at the Seine-Maritime Shipyards (27 May 1963).



more their accommodations include a drawing office and an Engineer's office.

These two vessels, given the names Astrolabe and Boussole, traditional for hydrographic vessels of this Class, after the frigates of the LA PEROUSE Expedition, were built in the 'Ateliers et Chantiers de la Seine-Maritime' and were launched during the first half of 1963. They will be put into active service during the course of 1964.

Their principal features are the following :42.70 mLength overall8.20 mBeam8.20 mDraught2.40 mMean Displacement350 THeight of the top platform deck above the water line8 m

The hull is entirely of welded metal, and is without portholes; the metal decks are partially wood-covered.

Two 400 hp Baudoin Motors coupled through twin reduction gear to a variable pitch propeller ensure a maximum speed of 12.5 knots. The variable pitch propeller allows great flexibility of speed, and in particular makes sailing possible for relatively protracted periods at reduced speed.

Their maximum range is 4 000 nautical miles, thus enabling them to accomplish 15 days of continuous navigation.

The normal ship's company consists of :

- 2 officers
- 8 Petty officers
- 24 ratings

and the hydrographic team is made up of :

1 Hydrographic officer

**3** Hydrographic Petty officers

All hands are accommodated in bunks, and in addition to the officers' Wardroom and the Petty officers' Mess there is a Mess with room for 22, placed close to the kitchen, allowing the ratings to eat in comfort and serving also as a recreation room.

The bridge-unit includes a navigation room, a central hydrographic station, where the depth recorders, the radionavigational instruments and a chart table are to be found, as well as the wireless cabin.

All the other accommodations are forward, or on the two decks below the forecastle deck.

Abaft the engines, and below the main deck, there is a drawing office with a table of  $3.5 \text{ m} \times 1.8 \text{ m}$ , stores for stocks and for the maintenance of the scientific equipment, and a huge bunker for hydrographic gear.

The equipment of these vessels includes two 8.3 m launches, with echo sounders and radio receivers, which are lowered into the water on swinging davits, as well as a 5 m dinghy.

On the after deck the hydrographic equipment is handled with the help of a 500 kg derrick.

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The hydrographic equipment of these vessels includes :

— a radio positioning set of the Rana or Toran type;

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- two Kelvin Hughes MS 26 Fi and H echo sounders;
- an oceanographic winch, a light winch for lowering shallow water apparatus and an American drag for the launches.

Finally, a noticeable feature of the clean cut upper bridge is that it is equipped with a repeating compass allowing classical hydrographic navigation and observation with the help of hydrographic circles.

Thus these vessels are equipped to carry out both coastal soundings with launches and, thanks to the radio positioning set, deep-sea soundings, hydrographic sweeps, and occasionally oceanographic sampling.

Despite their reduced complement they are capable of undertaking all types of surveys and to continue all the activities of the principal survey party in the absence of its leading vessel.

It is at present expected that the *Boussole* will join an overseas survey party, whereas the *Astrolabe* will become a tender to the *Amiral Mouchez* on the French coast.