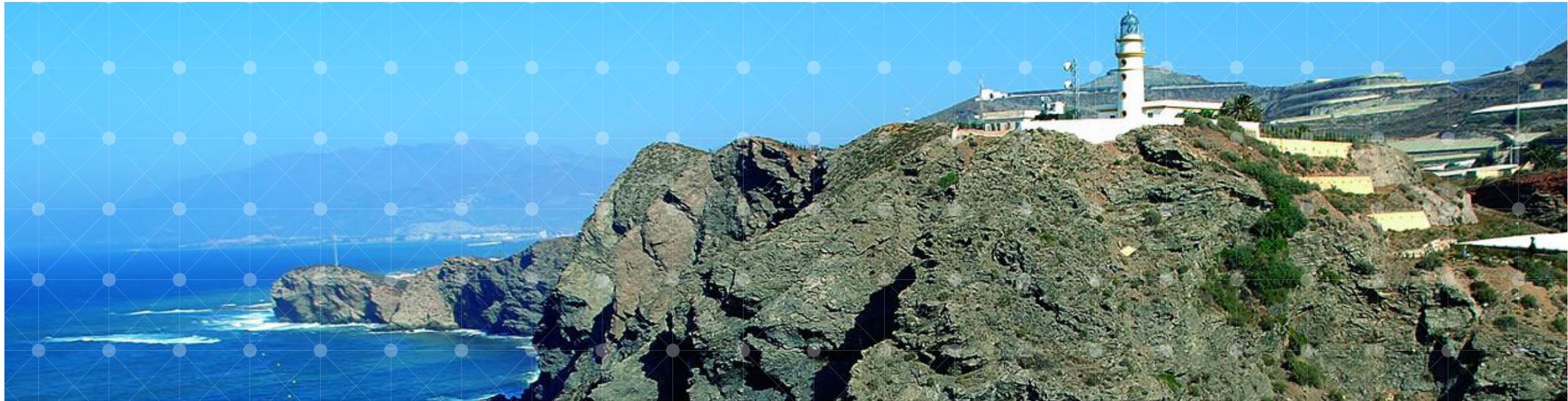


EGNOS used in bathymetries to compile official nautical charts

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Credits: IHM

EGNOS open service is commonly used by a wide range of users in different domains to achieve better position accuracy than the one provided by GPS alone. This is the case of surveying applications in the maritime domain, where EGNOS plays a role as an affordable positioning solution under certain circumstances.

The Hydrographic Institute of the Spanish Navy (IHM) is the official organism in charge of performing the hydrographic surveys, i.e. bathymetric and topographic submarine studies in the Spanish coasts and other maritime areas appointed by the International Hydrographic Organization (IHO). The IHM is responsible for the formation and maintenance of the Spanish Official Nautical Charts, as well as writing, producing and publishing different nautical publications as the Sailing Directions, List of lights and fog signals, List of radio signals, Tide tables, Notices to Mariners among others.

Hydrographic surveys shall follow the IHO standard S-44, which is the one establishing the minimum requirements for surveys conducted for the safety of navigation, including positioning system tolerable errors known as Total Horizontal Uncertainty (THU) at the 95% confidence level. Different Orders are set for nautical charts according to the areas where the surveys are to be performed and, for some of them, EGNOS accuracy is enough to meet the minimum THU required.

This is well-known by the IHM, who has been using EGNOS for several years now to perform bathymetries in those areas away from the coastline, where positioning requirements are not so demanding and the coverage of other positioning systems is limited. Particularly, some areas of the so called “Spanish Exclusive Economic Zone” (ZEEE), that is, the marine area surrounding Spanish coast within the 200 nautical miles limit, were surveyed using EGNOS, for instance, the ZEEE in the Cantabrian Sea.