

# IHO Releases New Standards for Hydrographic Surveys



The IHO has recently released a new edition of the Standards for Hydrographic Surveys (S-44). In addition to surveys to support the safety of navigation, these standards can be adapted for oil and gas, renewable energies, dredging, geophysics and geotechnics.

By clarifying the required levels of accuracy, they will help define the requirements in terms of technology, time and human resources and will save valuable resources.

One of the notable changes in this latest version is the introduction of a new, more stringent classification for surveys called 'Exclusive Order', which expands the standards' applicability. This is designed for specific critical areas such as harbours and channels with minimum under keel clearance and bottom characteristics which could be hazardous

to vessels. In these specific areas, an increased accuracy of +/- 10cm on a map can help precisely determine requirements for dredging and avoid unnecessary costs.

## Flexibility in the Survey Definition

Another key feature of this edition is a new 'Specification Matrix': a matrix of parameters and data types which defines the required accuracy depending on the hydrographic needs. The aim is to allow flexibility in the survey definition and to accommodate these various needs as well as emerging technologies such as satellite-derived bathymetry.

Since the cost of surveys can range in the millions of euros, S-44 is an essential tool for all institutional and commercial surveyors.

[S-44](#) specifies the minimum standards to be achieved depending on the intended use. Hydrographic offices and organizations are able to define more stringent or specific requirements for national or regional variations when necessary. For procedures for setting up equipment, conducting surveys and processing the resulting data, users can refer to the IHO [Manual on Hydrography](#) (Publication C-13).

Christophe Vrignaud of the French Hydrographic office (Shom) led the Hydrographic Surveys Project Team (HSPT), which had been tasked with updating the standards.

The title of the first edition of S-44, published in 1968, was 'Accuracy Standards Recommended for Hydrographic Surveys', and it still highlights to this day the main focus of the standard. The IHO has endeavoured to update it regularly to keep pace with new technology and methods.