

Hydrographic Data Supporting Purposes

Over the past years it has been recognised at national and international level that hydrographic data and the information collected for the production of navigational charts along with the support of safety to navigation are all important and very much needed in many other aspects of ocean and marine environment, science and management.

Hydrographic data and information have historically been collected and used for the production of nautical charts. Any other uses were, in most cases, considered of little importance. However, recently, the requirements to support the users of non-navigational data and services have increased in importance and will continue to increase. Ocean modelling and circulation, coastal zone management, environmental protection, oil and gas exploration, delimitation of zones of national jurisdiction and especially of the continental shelf beyond 200 miles in accordance with the United Nations Convention on the Law Of the Sea (UNCLOS), the laying of pipelines and cables, fishery and defence are some of the applications for which hydrographic data, information and products are important to oceanographers, geologists, geophysicists, academic and government institutions, commercial firms, fishermen, military and many others. The recent tsunami disaster in the Indian Ocean has shown that hydrographic data and information have a vital role to play not only for preparing tsunami warnings but also for research, simulation and coastal protection purposes.

The International Hydrographic Organization (IHO) and its Member States' hydrographic offices have recognised the importance of hydrographic data and information for purposes other than navigation in:

- its amended Convention, approved during the 3rd Extraordinary International Hydrographic Conference (EIHC) in April 2005, where its first new objective was "to promote the use of hydrography for safety of navigation *and all other purposes and to raise awareness of the importance of hydrography*"
- the improved definition of hydrography approved in June of this year during the 4th EIHC, where hydrography was defined as "the branch of applied sciences which deals with the measurement and description of the physical features of oceans, seas, coastal areas, lakes and rivers, *as well as with the prediction of their change over time*, for the primary purpose of safety of navigation and *in support of all other marine activities, including economic development, security and defence, scientific research, and environmental protection*"
- its Strategic Directions, contained in the new Strategic Plan of the Organisation approved during the 4th EIHC, where it has been accepted that "*The IHO will continue its leading role as the competent international organization on all hydrographic matters by responding more efficiently and effectively to the needs of the maritime community, government, science and industry for the provision of the appropriated hydrographic data and products*".

The IHO has developed the geospatial new standard known as S-100. It is much more flexible than the existing standard S-57, which has been used almost exclusively for the production of electronic navigational charts. The primary goal for S-100 is to support a greater variety of hydrographic-related digital data sources, products and customers, increasing the likelihood that potential users will maximise their use of hydrographic data for their particular purpose.