

BRIEFING NOTES FOR WORLD HYDROGRAPHY DAY - 2019

Hydrographic information driving marine knowledge

Purpose of World Hydrography Day

In 2005, the General Assembly of the United Nations (UN) adopted Resolution A/60/30 on oceans and law of the sea, which in particular welcomed the adoption by the IHO of the World Hydrography Day, with the aim of giving suitable publicity to its work at all levels and of increasing the coverage of hydrographic information on a global basis. The Resolution urged all States to work with the IHO to promote safe navigation, especially in the areas of international navigation, ports and vulnerable or protected marine areas. As a result, on the 21st of June each year the IHO celebrates World Hydrography Day. World Hydrography Day is an opportunity to increase public awareness of the vital role that hydrography plays in everyone's lives.

Theme for 2019

The IHO has chosen as its theme for World Hydrography Day 2019:

“Hydrographic information driving marine knowledge”.

Topics for WHD 2019

As in previous years, the World Hydrography Day theme for 2019 is intended to provide a broad range of opportunities to publicise the hydrographic work and services provided by national hydrographic offices, industry stakeholders and expert contributors, and the scientific community. The relevant topics include, but are not limited to:

➤ **2019 sees the centenary of first Hydrographic Conference in London 1919**

Only one year after the end of “the” War, representatives of 26 countries met in London at Trinity House to discuss and agree on future technical cooperation in hydrography. The report of proceedings starts with the following statement: *“The experiences of the War in special relation to hydrographic matters showed most clearly the enormous importance of the possession of accurate charts and hydrographic information generally, and the very grave disadvantage attendant on their no-possession; and also brought clearly into prominence the great divergence in methods of production, etc. obtaining in the various countries of the world. It was also evident that the cessation of the War must inevitably lead to increased activities in shipping trade, and that this must automatically increase the amount of hydrographic surveys which will be required by all maritime countries of the world.”* This notable modern phrasing confirms that hydrography was already well understood as a prerequisite of what we call “marine knowledge” today. The London Conference gave initiation to the foundation of the International Hydrographic Bureau (later re-named International Hydrographic Organization) in 1921.

➤ **The request for hydrographic information is expanding**

There is an increasing need for marine data, critical for the development of a sustainable blue economy, the protection of the marine environment, and the prevention or mitigation of consequences of marine disasters or climate change. There is no conservation and sustainable use of the oceans, seas and marine resources without hydrographic data. A wide range of related hydrographic data is now crucial in supporting important decisions. These data, and

associated skills, are very similar to those used for supporting navigation. The customer base for hydrographic products and the use thereof are changing rapidly, either through the evolution of the requirements of navigation, or through the extension of other needs for marine data. The crucial role of data and information in our societies have important consequences on public policy (e.g. open data), the need for assurance and cyber security of data and product dissemination, and on the involvement of the private sector, which will have an impact on how investments in hydrography are sustained, and how standards are developed. Standardization offers the opportunity to combine data sourcing from related engineering and science disciplines to create a so far unseen new image of the status of the seas and oceans. This interoperability of information allows new insights and an improved understanding of the global marine processes. The IHO has formed an alliance with International Standardization Organization (ISO) and Open Geospatial Consortium (OGC) to provide such data standards all along this value chain to reach customers on different levels of needs and qualification.

➤ ***Comprehensive mapping of the deep sea***

Current satellite mapping of the ocean renders a resolution of between 2 to 5 km, but the present coverage of the ocean at such resolutions is scarcely over 5 percent. The current map of the ocean does not represent therefore many important underwater features. With the current level of knowledge, the recent searches for missing aircraft simply did not know the true initial depth of water they were supposed to operate in. The joint efforts of IHO and IOC of UNESCO, as parent organizations of the GEBCO Project, to map the world ocean address this deficiency. The aspiration is to acquire and to assess all available sources for bathymetric information from expert surveys undertaken by governmental bodies, scientific explorations and private organizations to facilitate a much more detailed and accurate map of the world ocean. Likewise, crowd sourcing of bathymetric data, another important initiative of the IHO on data gathering and maximizing, was identified as a potential valuable source and the IHO is campaigning further to ingest these data contributions into its data base for the provision the global GEBCO data sets. In the midterm, however, the mapping of the ocean should include much more than depth measurements. It includes parameters of the physical, biological, chemical, and geological environments, ecosystems, cultural objects, boundaries, resources, etc. In other words, future ocean mapping will condense all marine knowledge in customized data products to meet the needs of the science capability of analysis and predictability. The basis for such comprehensive mapping will be formed by the embedded information about the physical nature as provided by hydrographic data.

➤ ***The Work and Contribution of Hydrographers***

Stakeholders involved in hydrography may wish to highlight the significance and importance of their activities. This could include, but is not limited to, the support of safety of navigation, the protection of the marine environment, coastal zone management, marine spatial data infrastructures, defence and security, resource exploration, and all other components of the blue economy. The work of all the world's hydrographers - whether from the public or the private sector - should be highlighted to increase public and political awareness of the importance of the seas and waterways to everyone's lives. Key figures on the benefits gained from accurate and updated hydrographic data should be provided in relation, for example, to competitive and sustainable shipping or efficient marine spatial planning and associated decision-making processes.

➤ **98th Anniversary of the IHO**

Today is the World Hydrography Day of 2019 which also marks the 98th anniversary of the establishment of the organization known today as the IHO. On this occasion, the IHO and its currently 89 Member States will reaffirm their commitment to raising awareness of the importance of hydrography; and continue to coordinate their activities, in particular through maintaining and publishing relevant international standards, providing capacity building and assistance to those countries where hydrographic services require improvement, and by encouraging the collection and discovery of new hydrographic data through new emerging technologies and by ensuring the widest possible availability of this data through the development of national and regional marine spatial data infrastructures.