

One Ocean Summit – 2022 Brest

S-100: a new standard for navigation safety and ocean protection

Closing remarks: Mathias Jonas, Secretary-General of IHO¹

Reminder of the overall objective of the IHO and highlighting the S-100

As General-Secretary of the IHO I am pleased to share views on the added value of the S-100 standard, its current development status and initiatives engaged to accelerate its deployment.

The International Hydrographical Organisation is an intergovernmental organization that works to ensure all the world's seas, oceans and navigable waters are surveyed and charted. The most well-known application of hydrography is the nautical chart used for navigation. But hydrography is much more: it is the basis for all maritime activities: navigation, search and rescue but also the protection and management of the marine environment, tsunami flood and inundation modeling, the use of marine resources (minerals, oil & gas, renewable energy, fishing, aquaculture), tourism and science.

With digitalization and growth of maritime activities, more and more data is collected and shall be shared across these various users. Having a common set of standards becomes vital to ensure the data will be valuable to everyone needing it. Therefore, IHO has defined the S-100 data model and IMO adopted it as baseline data encoding standard for e-navigation. It will effectively revolutionize the way maritime data is created, shared and used between communities over the world. It is a universal data model while the previous S-57 standard was dedicated to electronic navigational charts in order to replace paper charts. Scientists use other standards more appropriate for thematic maps but not for navigation with its specific requirements for safety and security.

This new "S-100" set of standards is not yet well known by the wider maritime community even though a long work has been engaged by IMO and IHO designing a new model for marine data which could satisfy the growing demand for the multiple purposes mentioned before.

One important difference to GIS is that the S-100 data is using the common technological platform ECDIS², literally the same on VTS towers, on the bridge of every vessel > 300 tons and the PPU³ for pilots. The S-100 family of standards is not only assuring interoperability between platforms but maintains cross over concepts for visualization too. It also reduces training requirements for seafarers, especially when they are in difficult situations and under stress. It also assures the high level of quality and confidence which is mandatory for official maps although being open for near real time applications.

So I am pleased to participate to this workshop which aims at showing use cases for S-100 for various applications and calls for cooperation. This is what we need.

¹ IHO = International Hydrographic Organisation

² ECDIS = Electronic Chart Display and Information System

³ PPU = Portable Pilot Unit