

S100 Operational analysis

Submitted by:	ITALIAN HYDROGRAPHIC INSTITUTE
Executive summary:	HOs' feelings over the implementation of S100
Related Documents:	IHO Strategic Plan S-100 Implementation Strategy
Related Projects:	

Introduction/background

In its strategic Plan for 2021-2026, IHO has identified the mission, the vision and the goals for 2026. For the execution of its mission, the following goals have been identified: *“Evolving the hydrographic support for safety and efficiency of maritime navigation”*, *“Increase the use of hydrographic data for the benefit of society”* and *“Participating actively in international initiatives related to the knowledge and the sustainable use of the Ocean”*. One of the four means that IHO, HSSC and IRCC will use to achieve the settled goals is “Standardization”; S-100 represents both one of the biggest challenges that the whole organization will have to handle in the next decade and the main driver in the development of its vision.

Reading IHO's Strategic Plan from the standardization perspective, it is possible to locate S100 influence in all its challenges and goals. If properly managed, S100 has the potential to become a key factor when implementing IHO's strategy. IHO through HSSC and HOs has already been working on S100 and the connected Product Specifications. Since many PS have been already developed, and other PS will be ready in the next years, it is now time to study operationally how S100 will affect HOs and maritime operators.

The University of Genoa, in a joint effort with the Italian Hydrographic Institute is conducting research on how the introduction of S100 products is perceived by Hydrographic Offices and how it is going to revolutionize their operations in the upcoming years. The study is part of a wider study focused on how the introduction of S100 will affect shipping companies and maritime operators.

Analysis/Discussion

In over a decade, IHO has mainly focused in building the technical foundation for S100 and to date, the operational side of its implementation has not been fully studied. The goal of the proposed research is to analyse S100 from a specific perspective that to date have not been considered by operators, institutions, and academics.

The introduction of S100 will revolutionize HOs work and the products delivered on board. Like any other innovation factor, to fully get advantage from the new standard, a proactive and fully conscious approach is needed; HOs will be called to be ready to implement it in their organization and to make it part of their business strategy.

Interesting is to understand the feeling of HOs over the introduction of the new standard, how they will be affected by its implementation and how an evolution in the services provided will affect maritime companies and seafarers. As IHO and HOs have a primary role in the development of S100 as the IMO's e-navigation Common Marine Data Structure, investigating their point of view over the subject studied can lead into interesting outcomes.

The research will be based on a questionnaire that, through IRCC will be forwarded to member states. The questionnaire is structured into three parts:

- **How S-100 can affect Hydrographic Offices** – this part is meant to analyse how the introduction of a standard can affect HOs operability and what are the challenges and risks that HOs will have to face in the future.
- **How S-100 can affect seafarers** – this part is meant to understand how the producer thinks that his work will affect the final user who is out at sea. At this stage, even though it is still premature to have a full view of how the future bridge will look like, the analysis of the producer's overall feeling can be useful to start understanding it.
- **How S-100 can affect maritime shipping companies** – beyond seafarers, the introduction of new systems and services depend on maritime companies' investments, this part of the survey is mean to detect how the hydro community can make S-100 ECDIS appealing to private companies.

The goal of the research and the questionnaire is to **detect in a managerial, economic and operational perspective how S100 will affect the work of HOs, maritime operators, and mariners' daily work.** Getting per time a picture of how HOs are going to react to the introduction of this environmental factor can help IHO in detecting the general feeling over S100 and the overall readiness level.

Considering one of the IHO's objective: "*... establish and enhance the development of international standards for hydrographic data, information, products, services and techniques and to achieve the greatest possible uniformity in the use of these standards*", the ratio that lies under the proposed project is to detect the overall HO's readiness level and in case of no uniformity between HOs, to investigate a way to fill that gap. Knowing per time if and how HOs are getting ready for the e-navigation revolution is essential when establishing deadlines and when settling future goals.

Action required by HSSC Chair

The HSSC WGs are invited to:

- a. Note this paper
- b. Approve the distribution of the questionnaire through IRCC CL
- c. Promote the widest adhesion of member States