Editorial

This edition of the International Hydrographic Review (IHR) is a tribute to Ian Halls, the Editor of this review from 2011 to 2019, ending with his tragic disappearance. A huge loss for the hydrographic community, and mostly for his family and friends. Ian and I met by correspondence in the beginning of 2011, when I joined the then International Hydrographic Bureau (IHB), having the Review in my portfolio of responsibilities, Ian handling the first edition as its Editor. The Australian Hydrographic Office (AHO) pays tribute to him in the Obituary.

In order to cover Ian's disappearance, I assumed as the Acting Editor of the Review for the second edition of 2019. A hard work that was facilitated by a number of contributors who provided high-quality articles and notes, responding to my call for action. Responses came from hydrographic services, academia and industry, reflecting the benefits of cooperation in Hydrography. The first article introduces the use of high-density bathymetry for the production of large scale ENCs using IHO Standards. It describes the engagement of two Hydrographic Services with stakeholders enhancing safety of navigation in confined waters while improving operation efficiency.

Our second article describes a methodology for comparative analysis of regional bathymetric surfaces by applying a set of graphical and statistical tools for quantitative and qualitative analysis. The methodology demonstrates the models' capacity to detect and delimitate new submarine features, when applied to delimitation of maritime boundaries and to the definition of the outer limits of the continental shelf.

The third article investigates the performance of airborne bathymetric Lidar in shallow waters for safety of navigation, covering the "white ribbons" in nautical charts due to the limitations of acoustic methods when surveying nearshore shallow waters. Data from multibeam echo sounder and from Lidar were compared using IHO Standards with corresponding ENCs, showing the strengths and limitations of different technologies.

A fourth article explores the multidimensionality of marine data and possibilities for the development of hydrographic services as providers of elements for decision makers, including but not limited to safety of navigation. Technology, vision and aspirations are the key ingredients that the hydrographic community has to focus now as the future will not wait.

These interesting articles are followed by five very attractive notes. The first shows how a hydrographic service sharply identified the challenges and opportunities that arose with the new framework for the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers. Instead of "refreshing" an old program to be submitted to the International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC), a taskforce generated a successfully recognized Category "A" Hydrographic Program.

A second note highlights the synergies and potential of marine spatial data infrastructures to manage data in a centric way, in accordance with standards, to improve data exchanged between stakeholders. These principles are as important to safety of navigation as they are for all areas of geospatial knowledge.

Our third note presents the experiences and achievements of a branch of a Regional ENC Coordinating Center (RENC). The quality assurance and the support to ENC Producers reflects the success of this enterprise.

A note from the IBSC Chair stresses the existing cooperation between the IHO and the International Cartographic Association (ICA), and the potential to be explored if closer ties are sought between the existing commissions and working groups of each parent organization. The IBSC Chair identifies several areas that are prone to cooperation in spatial data infrastructures, early warning and responses to disasters, nautical cartography, crowdsourced bathymetry, education and standards of competence, cartographic heritage and open source geospatial technologies.

Our fifth note introduces the technology and the potential of streaming data for marine navigation in small boats and recreational mariners. It showcases many advanced capabilities of the underlying technology that could be very useful for the broad spectrum of safety of navigation, fitting different business models. A cloud-based, open-sourced infrastructure designed for marine solutions, flexible and interoperable to embrace the S-100 framework, enabling the integration of real-time information.

I take this opportunity to introduce you to the new Editor of the Review, Capt (Ret) Brian Connon, Director of the Hydrographic Science Research Center at the University of Southern Mississippi (USM) in the United States of America.

Enjoy the reading!

Alberto Costa Neves,
IHO Assistant Director, Acting Editor