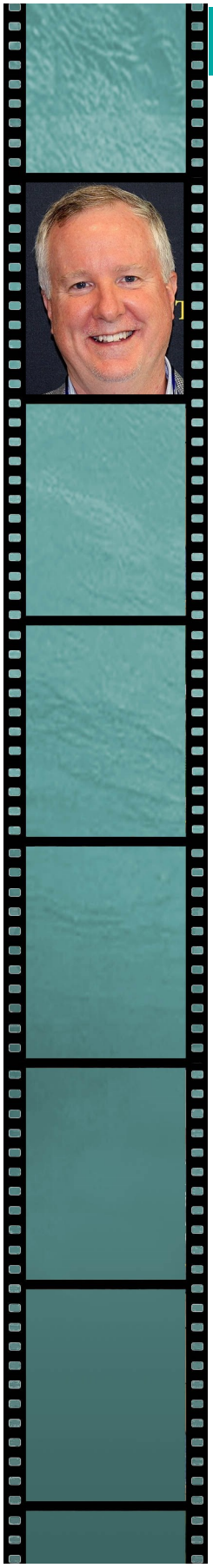

Editorial

Welcome to the November 2020 edition of the International Hydrographic Review! It was my hope that this edition would see all of us returning to normal day-to-day life, but we remain constrained and frustrated by the global pandemic. However, this has not stopped the business of hydrography—surveys are being conducted, charts are being produced and data is being made available. The IHO and member states have embraced online meetings to ensure the IHO work program continues; not an easy task across the world's time zones. Significantly, IHO has released a new edition of *Standards for Hydrographic Surveys* (S-44 Ed 6) that specifies a new "Exclusive" order and clarifies existing orders. I highly recommend a thorough review of S-44 Ed 6, which can be found here: https://iho.int/uploads/user/pubs/standards/s-44/S-44_Edition_6.0.0_EN.pdf.

Inside this edition, we start off with two articles that will be of great interest to hydrographic offices who are contemplating changes to chart schemes or establishment of a spatial data infrastructure. First, an article on NOAA's ambitious and complex ENC Re-scheming Plan, followed by an overview of Singapore's National Marine Spatial Data Infrastructure highlighting the motivation and challenges of establishing an MSDI. The next two articles provide insight and recommendations on the use of non-traditional sonars for hydrographic survey, including NOAA's Fisheries sonars and a Brazilian Navy Phase-Measuring Bathymetry Sidescan Sonar. The Universiti Teknologi Malaysia then shares their thoughts on the establishment and use of ellipsoidally referenced surveys for hydrographic surveys. The last three articles address the increasing importance of satellite data. The Canadian Hydrographic Service promotes accelerating the use of satellite based earth observation data; ARGANS, Ltd., provides a passionate argument for greater acceptance of satellite derived bathymetry as source data for nautical charts; and the Brazilian Navy shows the potential benefits of analyzing the relationship between satellite altimetry observations with bathymetry.

The six notes in this edition cover a wide range of topics, including education, remote surveying, survey specifications, and the current status of unmapped waters in the USA. Of particular interest is a best practice guide for the use of autonomous survey vessels in hydrographic survey-I am sure you will find it informative and helpful as you pursue use of these systems. Finally, the substantial work plan and activities of our colleagues in FIG Commission 4 (Hydrography) are presented.

I hope you enjoy the articles and notes in this edition; the topics addressed are wide-ranging, relevant, and reflective of the ever-growing knowledge and skill in our hydrographic community. Don't forget to submit articles for the May 2021 edition by January 31, 2021. A special edition of the IHR, celebrating 100 years of the IHO, is planned for release in April 2021, as well. A website dedicated to the IHR is also in the works with a goal to increase accessibility to both current and archived editions of the IHR. It's a great time to be a hydrographer!

Brian Connon
Editor