8th Tides Water Levels and Currents Working Group
VTC
20-22 February 2024

Contribution to the IHO Work Programme 2024	
Task 2.1.2.7	Attendance of TWCWG8

High level summary (can be used for posting on social media. Please provide concise lists in bullet point format):

- The TWCWG has been tasked by the IHO Hydrographic Services and Standards Committee (HSSC) to monitor and develop the use of tidal, water level and current information as well as to advise on tidal, water level and current observation, analysis and prediction. In addition, the TWCWG is responsible for developing the S104 and S-111 Product Specifications.
- TWCWG8 primarily focused on progress relating to the development of Ed. 2.0.0 of S-104 and S-111.
- TWCWG8 also discussed relevant Capacity Building activities and the IAPSO led initiative to develop a best practice guide.

Details:

Meeting was Chaired by Mr Christopher Jones (UK), supported by Vice-Chair Ms Ruth Farre (RSA). The IHO was represented by Assistant Director Mr Sam Harper. The meeting was attended by representatives from Argentina, Australia, Brazil, Canada, Chile, Denmark, Finland, France, Germany, Indonesia, Italy, Japan, Netherlands, New Zealand, Norway, Peru, Republic of Korea, Romania, South Africa, Spain, Sweden, UK and USA. Expert contributors from PRIMAR, Portolan Services, SevenCs, WR Systems, NOC and All4Land were in attendance.

S-104 and S-111 Ed. 2.0.0 status

The Chair explained the guidance and rationale received from HSSC to scale back the scope of S-104 following engagement at the S-100 working group. An update on the current status of S-104 E 2.0.0 was provided with specific questions and areas for TWCWG's consideration identified. Key items included the mechanism for cancelling old files and the need for digital signatures. PRIMAR gave an update on their S-104 testing and raised the issue of cancelled products from the perspective of a service provider and how this links to S-128. They highlighted the potential security implications for the cancellation of datasets given there is currently no provision for digital signatures. He noted that this issue would also be considered at WENDWG14. The next steps agreed were for comments on the latest version of S-104 to be provided from the group by the 15th March ahead of submission of Ed 2.0.0 to HSSC16.

An update on the development of S-111 Ed 2.0.0 was provided. Within the brief, several changes were proposed. A key decision was to use 'direction uncertainty' in favour of the current 'orientation uncertainty'. It was noted that the latest version would need reviewing by the DQWG ahead of submission to HSSC16. Another key requirement identified was for the development of sample datasets to support

testing. The next steps agreed were for comments on the latest version of S-111 to be provided from the group by the 15th March ahead of submission of Ed 2.0.0 to HSSC16.

No specific updates from Member States' on S-104 & S-111 product development, the Chair noted that the NSHC tides working group had a number of active participants and that Germany, Denmark, the Netherlands and Sweden have all made presentations on their current product development status available.

KHOA presented the results of their survey into the production status of S-104 and S-111. Of the 9 countries that responded, 3 replied that they produce S-104 Products. For S-111, 4 of the 9 countries responded that they are developing products. It was agreed that the survey was a good tool for monitoring the implementation of these product specifications amongst Member States and as such it would be repeated annually.

IAPSO Best Practice Guide on Tidal Analysis

An update was provided by the project lead who reported that the first draft of the best practice guide had been produced. It was reported that the next step is to circulate the various sections for peer review and develop the content further. Further, it was suggested that a dedicated section on available software will be added. The team advised that the project would have a poster advertising their work at the 2024 14-19 April Vienna Austria European Geosciences Union general assembly, 14-19 April in Vienna, Austria. The group identified that the key interlinkage between TWCWG and this work is the list of standard tidal constituents.

Relevant IHO Resolutions and Charting Specifications

The group reviewed the relevant charting specifications. It was noted that within B-406, there is some inconsistency with regard to the guidance on levels of accuracy/precision for geographical positions as defined in B-130 and B-131. It was agreed that the solution would be to change the wording to reflect that 'to the nearest minute' was the minimum expected level of accuracy.

Capacity Building

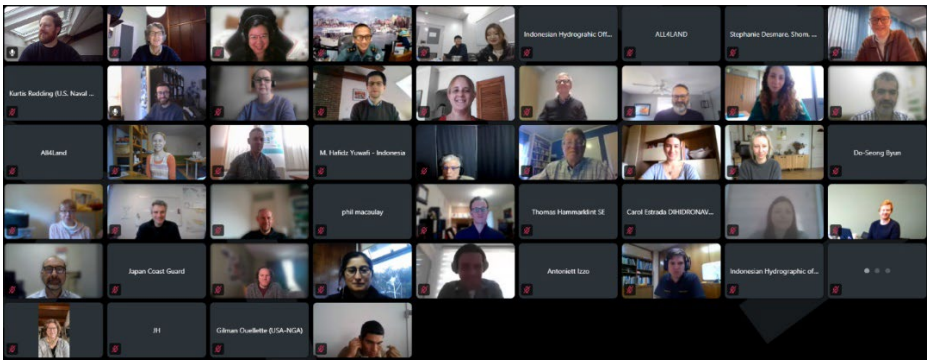
A report was provided on the recent tidal theory course held in Costa Rica. The course, led by NOAA, was delivered in Spanish. The course was very successful with 31 students from 16 countries and 25 organisations participating. The initiative was led and delivered by NOAA and the University of Costa Rica with the planning supported by IHO, COCATRAM, IMO and IOC. Support with the delivery was provided by the Brazilian Hydrographic Service and Spanish Hydrographic Office.

IOC Updates

The Chair of GLOSS gave an update on relevant activity, starting with a history of the origins of GLOSS. It was reported that GLOSS now has a steering group; comprised of a rep from each of the 5 data centres, with an additional 6-8 specialist reps. This group intends to meet more regularly going forward. One of the aims is to realise the concept of a unified data portal. A key element would be greater transparency of the source of that data (currently there is often more than one version of the same data). Another key piece of work is the Updating GLOSS implementation plan. It was noted that TWCWG meetings should be careful not to clash with GLOSS meetings as many members are part of both.

TWCWG Support to Development of S-44

The issue of the lack of detail on the elements of measurement uncertainty relating to tide and current observations in S-44 was discussed. A small task group was established to meet with the HSWG to discuss potential contribution to S-44 Ed. 6.2.0.



Upcoming meetings:

TWCWG9 Will be held 19-22 September 2024, in person at the IHO Secretariat, Monaco