

**Tides, Water Level and Currents Working Group**  
*Face-to-Face & VTC, 19-22 November 2024*  
*IHO Monaco / Hybrid*  
**Draft Agenda – (TWCWG9)**

**1. Opening**

- .1 Opening address – **Chair / Vice Chair**
- .2 IHO comments – **IHO**

**2. Administrative Arrangements**

- .1 Adoption of the Agenda and Apologies – **Chair/IHO**
- .2 Programme and timetable of the Sessions – **Chair/IHO**
- .3 Report on Intercessional Activities including HSSC16 – **Chair**
- .4 Matters arising from TWCWG8/Review of Action Items – **Chair**

**3. National Presentations**

- .1 Presentations by delegates on “National Tidal, Water Level and Current issues and projects”

**4. Programme Matters**

- .1 Standard Constituent List – **GBR/Chair**
- .2 The study of long-term data sets for the determination of global sea level rise and changes in tidal range. – **NOR/USA**
- .3 Compare Tidal Predictions generated as a result of analysis of a common data set by different analysis software (including Application for an International Association for the Physical Sciences of the Oceans (IAPSO) Best Practice Study group on Tidal Analysis)– **USA/NOR/GBR [UK National Oceanography Centre, NOC]**
- .4 Historical data recovery/data archaeology – **Chair / GBR [UK National Oceanography Centre (NOC)] / All**
- .5 Establishment and Maintenance of VRF for High Resolution Bathymetric Surfaces – **GBR/NLD**
- .6 Determining ellipsoidal height of MSL at the coast – **NLD**
- .7 Inventory of Tide gauges used by IHO Member States – **IHO/Chair**
- .8 Actual Tides On-line Link status – **IHO/Chair**
- .9 List of vertical datums in use to describe Chart Datum – **IHO/Chair**

**5. Product Specification Presentations & Updates (S-104 & S-111)**

- .1 Water Level Information for Surface Navigation Product Specification (S-104); Ed 2.0.0; Report – **AUS/USA**
- .2 Surface Currents Product Specification (S-111); Ed 2.0.0; Report – **USA**
- .3 S-104 & S-111 Impact Studies – **USA**
- .4 The TWCWG GitHub repository – **USA**
- .5 S-158 (Validation Checks) report; S-158:100; Validation Checks in general – **USA**
- .6 S-104 Validation and S-158:104; progress to date – **USA**
- .7 S-111 Validation and S-158:111; progress to date – **USA**
- .8 Production of S-104:
  - .1 Representing station-based data in regular grid format – **USA/All**
  - .2 Uncertainty, (vertical datum) epochs, interpolation, method of evaluation (processing techniques, quality of input data, etc.) – **USA/All**
- .9 Next editions of S-104 and S-111 (When? Changes beyond Ed 2.0.0) – **USA/All**
- .10 Additional S-10x; e.g. “S-105” (for all detail ‘removed’ from the original S-104 – **Chair/USA/All**
- .11 S-104 & S-111 Member State developments, Use cases, etc. – **All**
- .12 Engagement with S-100WG and other relevant subordinate bodies – **USA/Chair**

**6. IHO Resolutions and Charting Specifications**

- .1 Review of relevant IHO Resolutions – **ZAF**
- .2 IHO Resolutions - Chart Datum definition in non-tidal areas (and tidal areas) - **BRA**
- .3 Review of relevant IHO Charting Specifications – **IHO**

**7. IOC Programmes**

- .1 Update on IOC Global Sea Level Observing System (GLOSS) Programme items and events – **USA**
- .2 Update on IOC Tsunamis & Other Hazards Related to Sea-Level Warning & Mitigation Systems (TOWS) Programme items and events – **CHL**

**8. Capacity Building**

- .1 Tides and Water Levels Workshop training material – **ZAF/AUS/USA**

**9. Any Other Business**

- .1 Offer by the Hydrographic Surveys WG (HSWG) for TWCWG collaboration to improve tidal observation uncertainty standards within the relevant sections of S-44 (Standards for Hydrographic Surveys) – **BRA / Chair / All**
- .2 Minimum metadata requirements for tide & water level gauges - **GBR [UK National Oceanography Centre (NOC)]**

**10. Work Plan and ToRs**

- .1 TWCWG Work Plan 2024-2025 updates – **IHO**
- .2 Review TWCWG ToRs and RoPs – **IHO**

**11. Venue and dates of the 10<sup>th</sup> TWCWG Meeting (TWCWG10) –IHO/ Chair****12. Review of Action Items from TWCWG9 – IHO****13. Development of TWCWG9 report to HSSC17 - Chair****14. Draft Agenda for TWCWG10 –IHO/ Chair****15. Closing remarks – Chair/Vice Chair/IHO/All**