

## Actions:

1. *The study of long-term data sets for the determination of global sea level rise and changes in tidal range:*  
**Chair/All** to invoke a discussion on the effect of long-term changes in MSL rise on national vertical datums.  
**(TWCWG7).**
2. *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):*  
**IHO** to investigate how to publish results of analysis on the IHO website. **(TWCWG7).**
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):*  
**Chair** to Liaise with Dr Andy Matthews, UK/NOC, as to how TWCWG can contribute to the IAPSO work.  
**(TWCWG7).**
4. *Inventory of Tide gauges used by IHO Member States:*  
**All** to review and pass on updates to IHO Sec for the doc to be updated. **(TWCWG7).**
5. *Actual Tides On-line Link status:*  
**All** to review and pass on updates to IHO Sec for the doc to be updated. **(TWCWG7).**
6. *List of vertical datums in use to describe Chart Datum:*  
**All** to review and pass on updates to IHO Sec for the doc to be updated. **(TWCWG7).**
7. *Water Level Information for Surface Navigation (S-104) – work done to produce Ed 1.0.0, and towards compliance with S-100 Ed 5.0.0:*  
**Project Team** to provide specific actions for next steps to TWCWG to facilitate next revisions of S-104 and S-111. **(ongoing).**
8. *Surface Current Product Specification (S-111) – towards compliance with S-100 Ed 5.0.0:*  
**Project Team** to provide specific actions for next steps to TWCWG to facilitate next revisions of S-104 and S-111. **(ongoing).**
9. *S-104 & S-111 Member State developments, Use cases, etc:*  
**KHOA** to prepare a list/survey of how MS water level data (S-104) and surface current data (S-111) are created. **(TWCWG7).**

10. *Questions and Discussion on Implementing S-104 into 'products':*  
IHO / Chair to organise a dedicated workshop to tackle this topic, involving OEMS, RENCS etc. (ongoing).
11. *Questions and Discussion on Implementing S-111 into 'products':*  
Raphael Malyankar (RM) to Prepare a User-case annex for S-111. (TWCWG7 & ongoing).
12. *Review of relevant IHO Charting Specifications:*  
Ruth Farre (SANHO) to initiate this work following decision by HSSC on technical resolutions. (TWCWG7).
13. *Capacity Building; Tides and Water Levels Workshop training material:*  
IHO to restore links to Capacity Building (CB) material. (TWCWG7).  
China (MSA) invited to submit to Ruth Farre (SANHO) the PowerPoint of the Mandarin translation of the Tidal Theory course material [to date a PDF copy of the PowerPoint has been supplied] once ready. (TWCWG7).  
Peter Stone (PS, NOAA) to liaise with Ruth Farre (SANHO) with regard to reinvigorating the Spanish Speaking Tides course.
14. *Request by the Data Quality Working Group (DQWG) for TWCWG to investigate 'data quality' elements of water level and surface current data (including how to determine the "separation vertical uncertainty ratio" to allow use of Crowd Sourced Bathymetry (CSB) data:*  
Chair to liaise with Chair of CSBWG to understand the requirement for TWCWG support. (TWCWG7).
15. ~~Venue and dates of the 7<sup>th</sup> TWCWG Meeting (TWCWG7):~~  
~~Ruth Farre (SANHO) to investigate the logistics of hosting in 2023. (TWCWG7). n/a~~
16. All: all those who have actions to complete should keep the Chair, Vice-Chair and Secretary informed of progress. (TWCWG7)