



Hydrographic Services and Standards Committee

Report of the TWLWG

to HSSC 6

November 2014

Principal activities and achievements

- ✦ The 6th meeting at the Australian Hydrographic Office, Wollongong, Australia from 25 to 28 March 2014. and was hosted by the Royal Australian Navy (RAN) Hydrographic Service. The meeting was attended by 16 representatives from 9 IHO Member States, the IHB and expert contributors from Australian National Tidal Centre (Bureau of Meteorology) and OMC International.



Principal activities and achievements

- ✦ A number of national presentations were given, covering a variety of topics – work in the Baltic region to establish a pan-Baltic datum and align it with S-100 Product Specifications, the AusCoastVDT (Vertical Datum Transformation) tool, the tides and sea level variations in the Arctic, the organization and structure of Land Information New Zealand (LINZ) and the Hydrographic Authority (NZHA), the TideBed, a database of relations between tide datums and the BathyElli references surfaces (France, SHOM), GNSS reference heights used to generate vertical reference data for bathymetry reference surface creation.



Principal activities and achievements

- ✦ A full day was set aside to work on the dynamic application of tides in ECDIS as well as a standard for the transmission of real-time tidal data. The main effort was directed towards determining metadata requirements from a user perspective and the format of the user interface for the display of dynamic tides.
- ✦ It was agreed to create two correspondence groups (CG) to progress the identified tasks and to generate initial drafts for presentation to HSSC 6. The main tasks were: S-100 Product Specification and Portrayal model. It is requested this PS is now allocated a number.



Principal activities and achievements

- ✦ Standard Constituent List and the on-going work to improve the data accuracy;
- ✦ Standard for digital tide tables where a need was identified to document the standard display formats on what minimum information should be provided;
- ✦ Study of long term data sets and the on-going efforts to recover historical data sets;
- ✦ Comparison of tidal predictions generated from the analysis of common data sets using different analysis software; and the establishment and maintenance of vertical reference frameworks for high resolution bathymetric surfaces.



Principal activities and achievements

- ✦ Revised wording for the definitions Mean Sea Level (MSL) and Lowest Astronomical Tide (LAT) for tidal and non-tidal areas (Annex A) were discussed. Final draft versions were agreed and these have been submitted to the Hydrographic Dictionary Working Group (HDWG) for presentation to the 6th meeting of the Hydrographic Services and Standards Committee (HSSC) for endorsement prior to seeking the formal approval of IHO Member States.
- ✦ The review into IHO Resolution 3/1919, as amended, (Datums and Benchmarks) remains on-going.



Other items of notes

- ✦ Work to develop a generic tides and water level course for delivery as part of the IHO Capacity Building programme: material used in various similar courses was identified. Outline course details were provided and a method to collate the available material into a suitable generic course was agreed. This remains on-going.
- ✦ SCWG Chair and TWLWG Chair began ongoing discussions on both technical items and merger strategies. It has been decided to hold the SC Working Group/Project Team meeting as scheduled in 2015, and invite TWLWG members, with at least Chair and Vice Chair to attend. TWLWG Chair find beneficial to invite SCWG Chair and Vice Chair to attend he TWLWG meeting. Full integration would occur in 2016.



Future work programme

A	Maintain and extend Standard Tidal Constituent List (IHO Task 2.7.2 refers)
B	Develop, maintain and extend a Product Specification for Digital Tide Tables (IHO Task 2.7.3 refers)
C	Liaise with TSMAD on tidal matters and develop, maintain and extend a Product Specification for Dynamic Application of Tides in ECDIS (IHO Task 2.7.5 refers) and a product Specification for the transmission of real-time tidal data (IHO Task 2.7.4 refers)
E	Establishing and maintaining vertical reference frameworks for high resolution bathymetric surfaces in order to develop associated work elements and identify tasks which could benefit from external support.
F	Prepare and maintain an inventory of tide gauges used by Member States and to publish it on the IHO/TWLWG web site (IHO Task 2.7.2 refers).
G	Compare the tidal predictions generated as a result of analysis of a common data set using different analysis software (IHO Task 2.7.2 refers).
H	Review and provide feedback of On-line real time water level observation document (IHO Task 2.7.2 refers).
I	Conduct the 2015 and 2016 meetings of TWLWG (IHO Task 2.7.3 refers)



Future work programme

- ✦ *Work Item C; Dynamic Application of Tides in ECDIS*
 - ✦ *TWLWG recognise the need of more impetus and would like to request that someone with more experience with S100 and ISO standards be part of the sub working group to help guide the process. The forward and the scoping document requires more focus.*
 - ✦ *There is potential for assistance to be given to TWLWG from an external expert contributor which would require funding from the IHB.*



Action requested of HSSC

- ✦ a. note this report
- ✦ b. re-appoint the TWLWG to continue its work under its current Terms of Reference
- ✦ c. the definitions of MSL and LAT for submission to IHO Member States
- ✦ d. endorse the draft Work Plan
- ✦ e. allocate a number for the S-1xx PS for the dynamic application of tides in ECDIS

