

Guiding Principles for Digital Tide Tables (DTT)

Aim: to define the “minimum” requirements

It is resolved that:

1. Information to be given in tables

Digital Tide Tables shall include:

a) Detailed predictions for standard ports; these predictions may consist of either the time and height of high and low water or the heights of the tide at a time step inferior to or equal to 1 hour;

b) Predictions for secondary ports; these predictions may consist of either detailed predictions as for standard ports or special tables giving data required for calculating the predictions based on the predictions for standard ports.

Shall we include other options, or specify only the “minimum”, to let the HO free to add other options in their software?

2. Datums and Bench Marks

The datum for tide predictions shall be the same as chart datum (datum for sounding reduction).

3. Time to be used

The time system employed shall be by default that actually used at the port. But the software may give the user the option to change the time zone.

The time zone used must be clearly displayed to avoid any possibility of confusion.

Suggestion: ISO Standard 8601 for time zones, dates and times.

4. Mean Sea Level

The height of mean sea level above Chart Datum (Z0) shall be stated clearly in DTT.

This is recommended for paper tide tables, should we keep this for DTT?

5. Translation of headings, etc.

It is recommended, principally for those Digital Tide Tables which are not in Roman characters, that the headings of divisions and columns include a translation in

English, French or Spanish, in order to increase the international usefulness of the Digital Tide Tables.

6. Equivalence with Paper Tide Tables

The maximum difference between predictions from Digital Tide Tables and Paper (*Printed?*) Tide Tables (*from the same country?*) must be of less than 5 cm.

If the software runs on different platforms (Linux/Unix/Windows), it is impossible to have exactly the same results for compilation reasons. The differences are less than 1 cm, but because paper Tide Tables give sometimes results rounded to 5 cm, we can obtain up to 5 cm of difference. This criteria can probably be discussed.

Digital Tide Tables produced by Hydrographic Offices are equivalent to paper Tide Tables and are official tide predictions in their area of responsibility.

Predictions given in worldwide Digital Tide Tables in ports that are not under the responsibility of the Hydrographic Office are given for information and are not official predictions.

Suggestion : warning notice to mariner to either flash up or be at the bottom of the window when not « official »

Other points to be discussed:

- 7. Disclaimer/ Notice to user about discrepancies between hard copy and digital version. Australian pilots notice any differences between the many publications in Australia and always question which is authoritative given our many layers of government.*
- 8. Graphic user interface – what sort of capabilities?*
- 9. Graphic Plot – would this be a minimum standard?*
- 10. Export/ Printing options – do we want any limiting options or standard format when exporting to a digital file? (keeping in mind that our DTT may feed into ECDIS displays)*
- 11. Standard definitions of terms for datums, time, etc*
- 12. How is the data updated?*
- 13. What would be the minimum update period if the DTT uses just harmonic constants?*
- 14. Do we want to consider a separate section for desirable extras?*
 - a. The inclusion of sunrise/sunset, moonrise/moonset, twilight times*
 - b. Under clearance windows of opportunity*
 - c. Inclusion of tidal stream/current information ? (not all HO have tidal stream/current in the same hard copy publication)*
 - d. Option to change time zone from Standard Local Time of port for Daylight savings and UTC (debateable if this is an extra).*
 - e. Access to harmonic constants- suggest minimum would be to match what is currently published in HO tide tables.*