

**5th CSPCWG MEETING
Sydney, 18-21 November 2008**

Paper for Consideration by CSPCWG

**Application of TR A2.16 to charts
'Naming Convention for the Vertical Datum of Charts'**

Submitted by:	UK
Executive Summary:	The IHO Tidal Committee proposed a new Technical Resolution A2.16, which was approved by IHO CL 19/2008. This paper is to consider its application to charts.
Related Documents:	M-3: TR A2.16; IHO CL 19/2008
Related Projects:	Revision of M-4

Introduction / Background

The IHO Tidal Committee proposed a new Technical Resolution A2.16, which was approved by IHO CL 19/2008, as follows:

A2.16 NAMING CONVENTION FOR THE VERTICAL DATUM OF CHARTS

1. It is resolved that the vertical datum used on navigational charts, Chart Datum (CD), be defined without ambiguity in order to enable subsequent bathymetric data comparisons to be conducted in an efficient and reliable manner and for the accurate combination of datasets using different vertical datums.
2. It is recommended that a designated epoch for example CD (2006) or LAT-UK (2000) be used. The decision as to when a change in CD for a given area is necessary and the name given to that specific definition of CD remains a matter for each Member State based on their national requirements.

Analysis / Discussion

Chart Datum (CD), in UK is related to the established Land Levelling System, ie it is stated as being x.x metres below the land datum. This figure is chosen to make CD as close as possible to Lowest Astronomical Tide (LAT) and in UK has been used for New Charts and New Editions in UK waters since charts were metricated, a rolling programme beginning in the late 1960s. LAT fluctuates slightly over its 19 years cycle of measurements, so it is only possible to relate CD approximately to LAT (and this is stated in the title notes on GB charts).

The only true way to state a designated epoch for CD on UK charts would be to state the year in which the vertical datum was adjusted to LAT, eg CD(1975). This will vary from chart to chart as the programme of transfer to LAT was undertaken. This could mean overlapping and other scale charts in the same area being referred to different CD years, even though the same adjustment was applied to the surveys to bring them to approximately LAT. Furthermore, for smaller scale charts, partly compiled from larger scale charts with different CD dates, one blanket date for the chart would not be strictly accurate.

Such a statement would be merely academic and of no help to the navigator (and may lead to confusion). It is of doubtful use to the researcher, who really needs to study the original survey and be informed what adjustment was made to the charted depths to bring them to CD (approximately LAT).

Note: S32 defines lowest astronomical tide as: The lowest tide level which can be predicted to

occur under average meteorological conditions and under any combination of astronomical conditions.

Conclusions

UKHO has discussed this TR internally, and decided to take no action on its charts. It is believed that the statement in the title notes 'Depths are in metres and are reduced to Chart Datum, which is approximately the level of Lowest Astronomical Tide' is sufficient information for the navigator.

Justification and Impacts

UK position is that applying this TR will lead to considerable research work which is of no benefit to the principal chart user (and possibly confusing) and of doubtful benefit to researchers.

Action required of CSPCWG

The CSPCWG is invited to discuss the application of this Technical Resolution, sharing information about the views and decisions of their own cartographers.