

Paper for Consideration by NCWG Depiction of Satellite Derived Bathymetry (SDB)

Submitted by:	UK Hydrographic Office
Executive Summary:	Depiction of Satellite Derived bathy on paper charts and ENC's
Related Documents:	CSPCWG11-08.7A (SDB)
Related Projects:	S-101

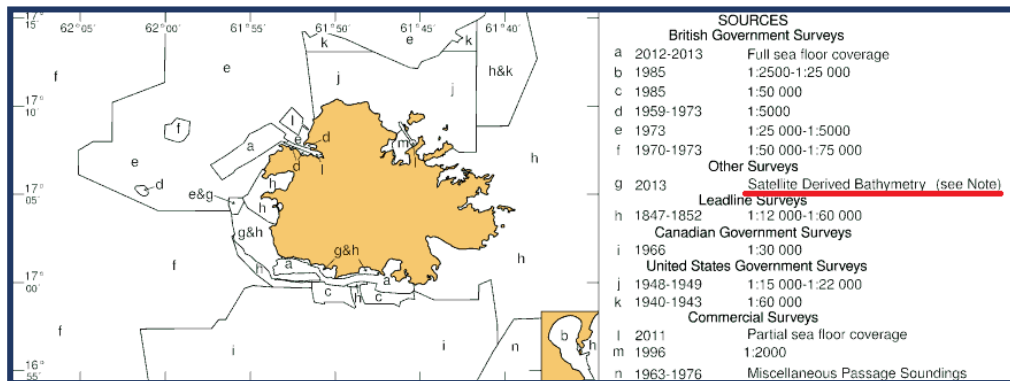
Introduction / Background

The use of Satellite Derived Bathymetry is becoming more commonplace, however there is no specific guidance in S-4 regarding a standardised depiction.

Analysis / Discussion

Several HOs have now incorporated SDB into their products using different depictions.

The example below shows how UKHO incorporated ground-truthed SDB at Antigua on GB chart 2064.



SATELLITE DERIVED BATHYMETRY

Depths within the area shown on the Source Diagram are mainly derived from satellite imagery. Their vertical accuracy is typically $\pm 3m$. Uncharted dangers may exist. For further information, see Admiralty publication 'The Mariner's Handbook'

- ENC Coverage = GB502066
- ENC Harbour
- Compilation scale 1:22,000
- Object class: M_SREL Survey reliability
- SURATH (Survey authority) = UKHO Satellite Derived Bathymetry

Conclusions

- To improve standardisation, similar terminology should be used in the Source Data Diagrams and attention should be drawn to the accuracy using charted notes as required.

Recommendations

- Define a standardised way to depict SDB bathy to improve consistency but limit any work required for S-4 and S-57
- Describe the method and date of data collection in the Source Data Diagram of the

- paper chart
- Identify relevant CATZOC in the ENC and populate M_NPUB (to capture the chart note)
- Optional: populate M_SREL SURATH

Justification and Impacts

- This proposal has limited impact on S-4
- The impact is limited to existing published products (e.g., by NOAA, SHOM, UKHO and CHS)
- Supplementary National Guidance (Section V) in INT 1 does not reference data gathering using SDB
- S-67 Mariners' Guide to Accuracy of Depth Information in Electronic Navigational Charts (ENC) does not reference data gathering using SDB
- ENCWG are required to confirm the proposed depiction for an ENC
- Priority: low

Action required of NCWG

The NCWG is invited to:

- a. Endorse proposal for S-4
- b. Confirm proposal with:
 - ENCWG for the S-57 ENC
 - S-101WG for S-101