

MEDIN DAC Funding Report – UKHO March 2016

Project Funded:-

During 2014 and 2015, the UKHO's Data Sharing MoU partners began delivery of legacy bathymetric data to UKHO, both for charting purposes and for public release through the UKHO DAC.

Before these datasets could be made available, they were required to undergo validation to assess their accuracy, and whether they indicated the presence of navigational dangers which could call for charting action under SOLAS requirements.

Existing validation procedures were designed to meet and verify IHO Order 1A bathymetry, and were not always appropriate for MoU-shared data, which has often been collected for purposes other than charting, and does not require such in-depth examination. UKHO wished to develop a more streamlined process, which could quickly identify the overall standard of data rendered, and thus ensure that data is made available on the DAC in a timely manner.

Activities undertaken:-

One staff member was tasked to examine the existing validation procedure and seek opportunities to develop a streamlined procedure for MoU data.

Criteria were identified to establish a 'triage' system to assess the IHO Order capability of each survey, and from that to identify datasets which could be fast-tracked through a reduced validation process.

A new procedure was developed to compare the raw data with a processed surface, giving a fast and accurate way to identify 'spikes' in the data, and assess the overall quality of the dataset. In addition, work was done making comparisons between various outputs, to find faster ways of identifying specific areas where quality issues could exist.

By using the above methods to prioritise MoU-sourced data, it was possible to identify and fast-track data which needed only minimal work. This also had the advantage of freeing processing time for those datasets which could achieve IHO Order 1A through full validation.

Deliverables:-

Streamlined documented process - Annexes and additions have been inserted to UKHO documented processes, describing variations to procedures for MoU data.

More MEDIN-compliant data on the UKHO DAC than originally planned within this time frame –

- 45 MoU datasets have been delivered to UKHO since April 2015
- Full validation of 45 datasets @ 5 weeks each = 225 weeks (4.5 years FTE)
- Processing has been undertaken by 2 x FTE (equivalent), which would equate to 44% of the 4.5 years required for full validation, and would indicate a current status of c20 surveys complete
- Using the streamlined process developed through MEDIN funding, 33 MoU surveys (73%) have been processed and made available on the DAC as at 01/04/16

Time taken for effective data processing to be reduced by 30% - 33 surveys have been processed in the time normally allocated for 20, representing an actual reduction of 40% in processing time.

Amendments to CHP planned areas as a result of validation of MoU data - It has been confirmed that some MoU surveys which overlap planned CHP areas have achieved IHO Order 1A, and also that several only require the addition of full wreck investigations to be 'upgraded' to this standard. As a result, CHP funding can be directed to new survey areas, and the MEDIN ethos of 'collect once, use many times' is fully supported.