

## Paper for Consideration by the WENDWG

### Update on the IHO ENC Catalogue

<i>Submitted by:</i>	IHB
<i>Executive Summary:</i>	This paper provides updated information on the development of the IHO ENC Catalogue since WENDWG-5.
<i>Related Documents:</i>	WENDWG5-10A: <i>Update on the IHO ENC Catalogue.</i> WENDWG5-05D: <i>RENC Coverage and Overlap Checker.</i>
<i>Related Projects:</i>	N/A

### Introduction and Background

1. The IHO ENC catalogue is referred to in the guidance provided to ECDIS users by the International Maritime Organization (IMO).
2. The development of the IHO ENC catalogue was initiated in 2004, at the request of the IMO, to show the growing ENC coverage and the Raster Navigational Charts (RNC) coverage in areas where there was inadequate Electronic Navigational Charts (ENC) coverage. As a result of significant improvements in ENC coverage however it was decided (some time ago) to remove the RNC coverage layers from the catalogue. The IMO MSC 1./Circ. 1503 dated 24 July 2015 providing a consolidated “ECDIS – Guidance for Good Practice,” includes the following statement in section A.8:  
*“The IHO provides an online chart catalogue that details the coverage of ENCs together with references to coastal State guidance on any requirements for paper charts (where this has been provided). The catalogue also provides links to IHO Member States’ websites where additional information may be found. The IHO online chart catalogue can be accessed from the IHO website at: [www.iho.int](http://www.iho.int).”*
3. The IHO ENC catalogue has been upgraded since the WENDWG3 meeting with the intention of providing the most complete and authoritative display of available ENC coverage. This is the main scope of the IHO ENC Catalogue.
4. The greatest difficulty with building and maintaining the catalogue has always been getting comprehensive ENC coverage metadata. Attempts to get ENC coverage metadata directly from Member States, on a regular basis, in a consistent format, even through RHCs or the WENDWG, have not been successful. For practical reasons, the primary source of ENC coverage information shown in the catalogue is therefore AVCS coverage data supplied by the UKHO on a monthly basis. These include (in addition to data coverage limits) the following attributes: cell name, usage band and scale. Discussions are in progress with the RENCs as well, for getting access to their catalogue web services.

### Catalogue Application

5. The IHO ENC Catalogue can be accessed from the IHO web site at <http://www.iho.int> > ENCs, ECDIS & S-100 > ENC Availability. The application provides a web map service for each of the 6 ENC usage bands. In 2015, the IHO ENC Catalogue moved into the IHO GIS environment (ESRI ArcGIS).

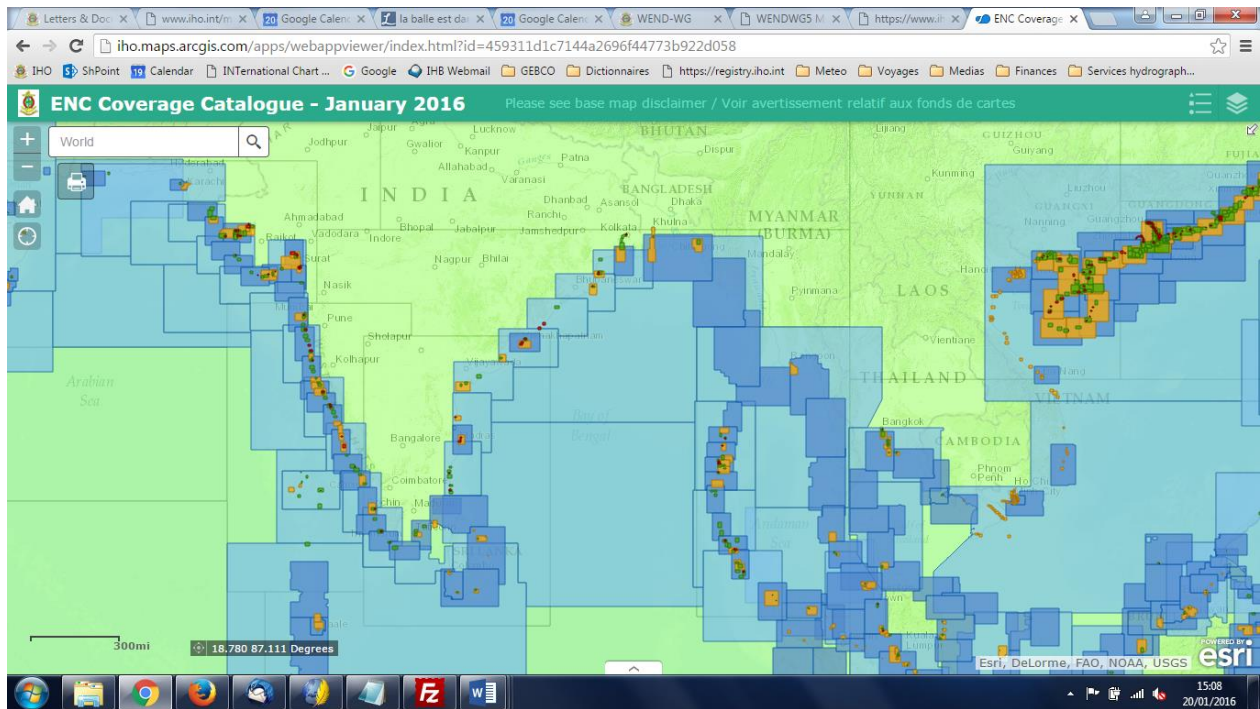


Figure 1 - IHO ENC Catalogue (as of January 2016)

6. The updating cycle of the IHO ENC Catalogue is expected to be aligned with the provision of appropriate data updates. However, for practical reasons and resources available at the IHB, this will be at intervals of not less than every two months. It takes a couple of hours for the IHB to upload the new data set on the IHO website and make the updated catalogue available.
  7. Information on carriage requirements for paper charts used in connection with ECDIS and links to the catalogues of IHO Member States are provided under separate headings on the IHO web site:
    - <http://www.iho.int> > ENCs & ECDIS > ENC Availability > Backup Paper Charts;
    - <http://www.iho.int> > ENCs & ECDIS > ENC Availability > On line Chart Catalogues.
- The IHO CL 61/2015 invites IHO Member States to provide the IHB with the appropriate updates.

### Way ahead

8. It is the intention of the IHB to improve the IHO ENC Catalogue within the IHO/IHB GIS environment in order to be able:
  - To display ENCs distributed through the system of RENCs: a seamless automated WMS process is experimented with PRIMAR to get the RENC ENC coverage, for internal IHB use only. IC-ENC is investigating the possibility of providing its catalogue files to the IHB as well.
  - To display ENCs not distributed by the system of RENCs but which are nevertheless available through End User Service Providers only: no progress since 2015, but request has been made to Jeppesen.
  - To automatically generate the IHO performance indicators on ENC availability and the information to be reported to the IMO (NCSR) on an annual basis (10 weeks before NCSR meetings): no progress since 2015 as this will be re-considered when new SPIs and WPIs are designed (see Doc. WENDWG6-04.4F4).
  - To link the IHO ENC catalogue to the INT charts web catalogue (schemes/production status) or to extend the new INTOGIS webservices (interfaces) to ENCs: experimentation will be starting this year.

### Action Requested of WENDWG:

9. WENDWG is invited to note this report.