

7TH MEETING OF THE IHO-INTER REGIONAL COORDINATION COMMITTEE
IHO IRCC7

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Paper for Consideration by IRCC

Chart Adequacy Evaluation International Workshop

Submitted by: USA (NOAA)

Executive Summary: The USA (NOAA) will be hosting a workshop in the summer 2015. This workshop will provide training regarding a chart adequacy assessment procedure using automatic-identification system (AIS) data and satellite-derived bathymetry (SDB) that will be conducted at Silver Spring, MD, USA, during summer 2015. The initial workshop is by invitation only.

Related Documents: IHO-IOC GEBCO Cook Book

Related Projects: 2016 MACHC SDB workshop

Introduction / Background

The International Hydrographic Organization (IHO) C-55 publication addresses the need to improve the collection, quality and availability of hydrographic data world-wide, while also monitoring and rectifying possible deficiencies and shortcomings that are presented on nautical charts. This task of evaluating the adequacy of nautical chart products poses a challenge to many national hydrographic offices. This stems from the dearth of readily available spatial information: namely, the lack of reliable and accessible vessel traffic data, and little means to assess the changing nature of both near-shore bathymetry and shoreline in a simple and reliable manner. Over the past year, a chart adequacy assessment procedure was developed. The procedure is based on publicly-available information, such as automatic identification system (AIS) data and satellite-derived bathymetry (SDB), and is readily available to be applied by HO's worldwide

The goals of the chart adequacy evaluation international workshop are:

1. Provide an overview of the chart adequacy assessment procedure that was developed by NOAA. The procedure is based on depth, main traffic routes, the last available hydrographic survey in the area, and known discrepancies identified using SDB and other methods (without ranking based on regional/local geo-political prioritization, e.g. tourism or military)
2. Train an international group of hydrographers and cartographers through a two or three day workshop in Silver Spring, MD in summer 2015
3. Further refine the procedure so it can be used on an international level
4. Create the framework to follow up and provide assistance with workshop participants to replicate this methodology internationally

Analysis/Discussion

The procedure draws the hydrographer's attention to differences between the charted features and the trends presented by the information datasets in an ESRI environment. As a response to the C-55 document, an international outreach effort will take place in Silver Spring, MD as a collaborative effort between the University of New Hampshire's (UNH) Joint Hydrographic Center (JHC) / Center for Coastal and Ocean Mapping (CCOM) and NOAA. The intended audience is cartographers, hydrographers, as well as identified potential chart producers from hydrographic offices (HOs) and local state agencies around the world, with an emphasis on nations that participated in the Nippon Foundation / GEBCO training program at JHC/CCOM, to continue to build on these established networks. Following the workshop, NOAA's Office of Coast Survey and UNH will follow-up and offer technical support and assistance for the participants to apply the procedure in their native waters.

Conclusions

The workshop will provide guidance and a simple-to-execute methodology for cartographers, hydrographers and identified potential chart producers around the world to use publicly-available information to assess chart adequacy in a GIS environment. As a result of the procedure, the chart is evaluated (as a whole and as marine traffic areas) with recommendations for improved hydrographic data collection and quality as described in IHO C-55.

Recommendations

A summary report of the workshop that includes the feedback from the participants will be provided to the IRCC.

Justification and Impacts

The chart adequacy procedure will demonstrate that a low cost tool can be used by other hydrographic offices, with a specific aim at nations that are actively developing their hydrographic capacity. The workshop itself will strengthen international relationships between HOs around the world and will demonstrate the ability to help in capacity building efforts using publicly-available information (i.e., Landsat satellite imagery). The workshop proposed here will also provide a model for the capacity building workshop planned for the 2016 MACHC.

Action Requested of IRCC

The IRCC is invited to:

- a. note this information
- b. Take any actions as considered appropriate.