



IMO

*E*

SUB-COMMITTEE ON SAFETY OF  
NAVIGATION  
53rd session  
Agenda item 5

NAV 53/5/2  
16 May 2007  
Original: ENGLISH

## EVALUATION OF THE USE OF ECDIS AND ENC DEVELOPMENT

### Evaluation of Electronic Navigational Chart (ENC) Availability

Submitted by the International Hydrographic Organization (IHO)

#### SUMMARY

**Executive summary:** This document provides updated information on the availability of ENCs

**Action to be taken:** Paragraph 12

**Related documents:** NAV 52/18, paragraph 6.19; and NAV 53/INF.3

#### Introduction

1 In its report to the Committee (NAV 52/18), the Sub-Committee, at its fifty-second session, concurred with the view of the IHO that the possibility of mandatory carriage requirements for ECDIS would lead to increased ENC production and requested the IHO to provide more detailed information to NAV 53.

2 The IHO requested information regarding ENC Production, Availability and Coverage from its Member States via IHB Circular letters 71/2006 and 7/2007. The same questionnaire was sent to all IMO Member States under cover of IMO Circular letter No.2750.

3 The questionnaire requested information relative to 3 areas: routes operated by High-Speed/Dynamically Stabilized Craft; International Shipping Routes; and Port Approach Routes/Major Harbours. The information was requested with respect to current availability, availability by July 2008 in the case of HSC and availability by July 2010 for all areas. Replies have been received from 57 States with France, Netherlands and the United Kingdom providing further information in relation to dependent territories and States for which they have a charting responsibility.

4 The IHO has also consulted the 2 Regional ENC Centres (RENCs) and the DNV Technical Report No.2007-0304 on the "Effect of ENC Coverage on ECDIS Risk Reduction" commissioned by Denmark, Finland, Norway and Sweden and submitted to this session of the Sub-Committee as an information document (NAV 53/INF.3).

For reasons of economy, this document is printed in a limited number. Delegates are kindly asked to bring their copies to meetings and not to request additional copies.

## Summary of results

5 The total number of ENC cells available to mariners in April 2007 was 6969 compared with 6079 in 2006 representing an increase of 14.6%. It is estimated that a further 2000 ENC cells have been produced but are not currently available to mariners.

6 The table below summarizes States' replies to the questionnaire referred to in paragraph 3 above:

### **High Speed / Dynamically Stabilized Craft Routes** (35 States reported that HSC operated within their waters)

	<b>Yes</b>	<b>Partial</b>	<b>No</b>
Coverage now	12	14	9
By 1 July 2008	19	12	4
By 1 July 2010	30	2	3

### **International Shipping Routes**

	<b>Yes</b>	<b>Partial</b>	<b>No</b>
Coverage now	25	29	20
By 1 July 2010	58	13	3

### **Port Approach Routes and Major Harbours**

	<b>Yes</b>	<b>Partial</b>	<b>No</b>
Coverage now	21	34	19
By 1 July 2010	56	15	3

In order to resolve this matter the IHB is in contact with the 3 States that indicate no ENC coverage by 2010 and with 5 other States who have asked for assistance in speeding up their delivery of ENCs.

7 NAV 53/INF.3 acknowledges at section 3.4.3 that the IHO ENC Catalogue on which they base their study "will not be completely up-to-date" and that therefore "the results will tend to be conservative". They also indicate that "the additional coverage available by 2010 will presumably be considerably larger than what is currently planned or in production" and that this would also "introduce a conservative bias into the analysis and the results arrived at herein". The IHO agrees with these statements. The information given in the table above indicates that there will be a significant increase in the number of States with 100% coverage by 2010. The task of establishing exactly what ENCs are commercially available should be considerably improved with the advent of the new IHO online catalogue which is the subject of a separate submission to NAV 53 under this agenda item. The current catalogue, as used for the preparation of NAV 53/INF.3, requires a considerable amount of human intervention by every producer nation to maintain its currency whereas the new catalogue will collect the data, together with a significant amount of additional metadata, in a predominantly automated process.

8 During discussions at the IHO "ECDIS Stakeholders' Forum" meeting in 2006 some concerns were raised about the pricing of ENCs but more particularly with regard to the licensing regime. IHO Member States and the RENCs are investigating ways of reducing the cost to mariners through a more flexible approach to licensing.

9 The focus of IHO effort remains the provision of ENC datasets, harmonised for consistency, for all major ports and the routes between them. With this in mind and in the knowledge of the safety benefits provided by ECDIS, at the XVIIth International Hydrographic

Conference held in Monaco in May 2007, IHO Member States adopted a new resolution on “ENC Coverage in relation to ECDIS Carriage Requirements” which includes:

“The IHO strongly supports the efforts by IMO to introduce mandatory carriage requirements for ECDIS, emphasizing that:

A significant coverage of ENCs is already in place and will be further improved by 2010, as indicated in the DNV report and supported by IHO assessments, and secondly that:

Acceptance of mandatory carriage requirements will further accelerate the production of ENCs.”

A further resolution on Electronic Navigational Chart Coverage, Availability, Consistency and Quality concludes that:

“IHO Member States should adhere and comply with the WEND Principles in order for the IHO to achieve adequate coverage, availability, consistency and quality of ENCs by 2010.”

10 The IHO will continue to work with its Member States and, through its Regional Hydrographic Organizations and the IMO, with non IHO Member States to improve the availability and consistency of ENCs worldwide and wherever possible to accelerate their production processes.

### **Conclusions**

11 The figures provided in this document show that coverage is increasing steadily and it is the opinion of the IHO that there will be adequate coverage of consistent ENCs by the time any further mandatory carriage requirements are likely to be adopted by the IMO.

### **Action requested of the Sub-Committee**

12 The Sub-Committee is invited to take note of the information provided and take action as it considers appropriate.

---