**NCWG4-06.1C**

**4th NCWG MEETING**

**The Hague, The Netherlands, 6 - 9 Nov. 2018**

**Paper for Consideration by NCWG**

**Survey to Accompany the Future of the Paper Chart Document**

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| ***Submitted by:*** | United States (NOAA) |
| ***Executive Summary:*** | Draft survey to accompany the distribution of the "Future of the Paper Chart" document to IHO member states is provided. NCWG members are requested to review the questions with the content of the "Future of the Paper Chart" document in mind. |
| ***Related Documents:*** | [NCWG4-06.1A](https://www.iho.int/mtg_docs/com_wg/NCWG/NCWG4/NCWG4-06.1A_FutureOfThePaperChart.pdf), "Future of the Paper Chart"  [NCWG4-06.1B](https://www.iho.int/mtg_docs/com_wg/NCWG/NCWG4/NCWG4-06.1B_FutureOfPaperChart.pdf), "Future of Paper Chart: Management Plan" |
| ***Related Projects:*** | None |

**Introduction / Background**

The "Future of the Paper Chart" document has several sections where information about various Hydrographic Offices or Chart Producing Authorities would be useful in discussing issues related to the future production and use of paper nautical charts.

**Analysis / Discussion**

During the upcoming NCWG4 meeting, we will discuss the survey and work toward refining the survey

It is important that we consider if there are any questions that are missing, based on the current or expected content of the "Future of the Paper Chart" document.

Other aspects of the survey that will be discussed at the meeting will include the potential methods that could be used to conduct the survey, when it will be conducted, and to whom it should be directed.

**Conclusions**

NCWG has a short time to complete the FOPC document and the survey.

**Recommendations**

Follow the actions listed below.

**Action required of NCWG**

The NCWG is invited to:

a.) Review the attached draft survey and the draft "Future of the Paper Chart Document."

b.) Come to NCWG4 prepared to help refine the survey and to discuss the logistics of conducting the survey.

**Draft Survey to Accompany Review of the IHO NCWG Paper, Draft**

**"The Future of the Paper Nautical Chart."**

**Background/Instructions**

***Additional text will be added here …***

***There will also be additional explanatory text added before each of the questions below. This may summarize parts of the "Future of Paper Nautical Charts" document or otherwise provide context for the survey respondents to consider when answering the questions.***

The headings above each set of questions refer to sections in the Future of the Paper Nautical Chart document.

**2 Current Environment**

**2.2 International and National Regulations**

**b. Paper Chart Carriage Requirements for other Regulated (non-SOLAS) Vessels**

**Information about carriage requirements for ENCs and paper nautical charts for domestic voyages.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| National Chart Carriage Requirements | | | | | | | | |
| Vessel Type | Required for Primary Navigation | | | | Required for Back-up | | | |
| Only Paper Chart | Only ENC | Either Paper Chart or ENC | Other | Only Paper Chart | Only ENC | Either Paper Chart or ENC | None Required |
| Leisure Boats | | | | | | | | |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Commercial Vessels | | | | | | | | |
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**2.3 User Requirements**

**a. “Fit for Purpose” Paper Charts for use as a Back-up to ECDIS and other Systems**

**Information about "Fit for Purpose" back-up charts.**

Does your charting authority produce or have specifications for any kind of "fit for purpose" paper or raster chart product to be used as a back-up? (Check all the apply)

\_\_\_\_\_\_ No

\_\_\_\_\_\_ Yes. It is to be used as a back-up for ECDIS

\_\_\_\_\_\_ Yes. It is to be used as a back-up for ECS for commercial ships on domestic voyages

\_\_\_\_\_\_ Yes. It is to be used as a back-up for electronic devices used by recreational/Leisure Boaters

Other clarifying remarks: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Does your charting authority support the development of an international standard for some type of "fit for purpose" paper or raster chart product?

\_\_\_\_\_\_ Yes

\_\_\_\_\_\_ No

Other clarifying remarks: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**c. Remarks and recommendations from other stakeholders**

**Remarks and recommendations regarding user requirements from charting authorities, hydrographic  
offices, mariners, print on demand vendors, navigation OEMs, and other paper chart stakeholders.**

**<< To be sent separately to non-HO stake holders >>**

Please provide other remarks and recommendations here. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**2.4 Production Issues**

**a. Print on Demand**

**2.5 Paper Chart Sales and Product Usage**

**a. Declining demand for paper charts**

**b. Increasing demand for ENCs**

**Information about the sales and distribution of paper nautical charts and ENCs from 2013 to 2018.**

How many charts are there in your paper nautical chart suite? \_\_\_\_\_\_\_\_\_\_

How many charts (cells) are there in your ENC product suite? \_\_\_\_\_\_\_\_\_\_

|  |  |  |  |
| --- | --- | --- | --- |
| Total of all Paper Nautical Chart Sales | | | Total if all ENC Sales |
| Year | Number Sold | | |
| Pre-Printed | Print on Demand | ENC Cells |
| 2013 |  |  |  |
| 2014 |  |  |  |
| 2015 |  |  |  |
| 2016 |  |  |  |
| 2017 |  |  |  |
| 2018 |  |  |  |

**d. Recreational Boaters’ Contribution to Paper Chart Sales**

What percentage of paper nautical chart sales are attributable to recreational boaters? \_\_\_\_\_\_\_\_\_%

What, if any public relations messages have your agency provided to recreational boaters or other users to encourage them to make greater use of ENCs and transition away from paper charts?

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**3. Future Environment**

**3.1 Product Coverage**

**a. International (INT) Charts**

How many INT charts are in your paper nautical chart suite now? \_\_\_\_\_

How many new INT charts do anticipate making in the next 5 years? \_\_\_\_\_

Do you believe that there is still a need to continue making INT charts? \_\_\_\_\_ Please explain why:

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**b. Rescheming paper chart coverage.**

Do you have plans rescheme any portion of your paper nautical chart suite in the next 5 years \_\_\_\_\_

This might include simplifying chart footprints, reducing the number of compilation scales or the number of charts in the suite, or other systematic changes. If you anticipate rescheming your paper nautical chart suite soon, what types of changes would the rescheming entail?

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**c. ENC-only coverage**

Are there any areas for which you produce an ENC product, but not the corresponding raster chart? \_\_\_\_\_

If so, how many ENCs in your suite are of this type? \_\_\_\_\_

Have you discovered any problems resulting from the "ENC-only" coverage in these areas? \_\_\_\_\_

If so, please explain

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**d. RNC-only coverage**

Do you produce Raster Navigational Charts (RNCs)? \_\_\_\_\_

Are there any areas for which you produce an RNC product, but not the corresponding paper nautical chart? \_\_\_\_\_

Have you discovered any problems resulting from the "RNC " coverage without paper charts in these areas? \_\_\_\_\_

If so, please explain

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**4. Changes a Future without Paper Charts Would Require**

**Information about the Member States perspective regarding impacts of a possible disuse of paper nautical charts.**

Please enter High, Medium, Low, or None in the table to indicate your assessment of the impact to each item if the production and use of paper nautical charts were to end. Additional remarks may be entered below the table.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Summary of Impact of a the End of Paper Nautical Charts | | | | | |
| Impact on… | International regulations | National regulations | User requirements | Production | Sales revenues |
| Member State Perspective |  |  |  |  |  |

Impacts on International regulations\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Impacts on National regulations\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Impacts on User requirements\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Impacts on Production\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Impacts on Sales revenues\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**4.1 Regulatory and Standards Changes**

**a. IMO and other International Regulations, and National Regulations**

**Information about changes to national regulations needed to enable the disuse of paper nautical charts.**

Please provide information about any changes to your national regulations that would be needed to enable the disuse of paper nautical charts \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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