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NAVIGATION, COMMUNICATIONS AND SEARCH AND RESCUE

Information received from the United Kingdom Hydrographic Office announcing the discontinuation of the paper chart portfolio

Submitted by Germany and ICS

SUMMARY

<i>Executive summary:</i>	This document contains information on the United Kingdom Hydrographic Office's official announcement to discontinue paper chart production at an undefined time after 2030.
<i>Strategic direction, if applicable:</i>	2
<i>Output:</i>	Not applicable
<i>Action to be taken:</i>	Paragraph 23
<i>Related documents:</i>	SOLAS chapter V, regulations 2, 9 and 27; resolutions A.817(19), as amended and MSC.530(106)

Introduction

1 This document is submitted in accordance with the provisions of the *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5/Rev.4).

2 The United Kingdom Hydrographic Office (UKHO) announced in the summer of 2022, on their website (<https://www.admiralty.co.uk/sunsetting-paper-charts>) the plans to withdraw UKHO's portfolio of Admiralty Standard Nautical Charts (SNCs) and Thematic Charts in 2026 in response to the circumstance that more marine, naval and leisure users are primarily using digital products and services for navigation. The Admiralty Maritime Data Solutions digital navigation portfolio can be updated in near real-time, greatly enhancing safety of life at sea.

3 It has become clear that more time is required to address the needs of users who do not yet have viable alternatives to paper chart products. Consequently, UKHO announced on 2 February 2023 to extend the cessation process of the global paper chart service until at least 2030.

4 According to SOLAS regulation V/9, coastal States have an obligation to provide and update hydrographic data and nautical information necessary for safe navigation.

5 Most ships today rely on the UKHO charts and their chart correction service. It was an unwritten assumption that this UKHO service will last indefinitely. However, the UKHO announced the withdrawal of paper chart production and distribution service and consequently, the discontinuation of the corresponding correction service sometime after 2030. This announcement forced coastal States to consider whether they would follow the UKHO decision or if they will continue with paper chart production and updating.

Introduction

6 Under the SOLAS Convention, Contracting Governments undertake to arrange for the collection and compilation of hydrographic data and the publication, dissemination and keeping up to date of all nautical information necessary for safe navigation.

7 In particular, Contracting Governments undertake to cooperate in carrying out, as far as possible, the following nautical and hydrographic services, in the manner most suitable for the purpose of aiding navigation:

- .1 to ensure that hydrographic surveying is carried out, as far as possible, adequate to the requirements of safe navigation;
- .2 to prepare and issue nautical charts, sailing directions, lists of lights, tide tables and other nautical publications, where applicable, satisfying the needs of safe navigation;
- .3 to promulgate notices to mariners in order that nautical charts and publications are kept, as far as possible, up to date; and
- .4 to provide data management arrangements to support these services.

8 Contracting Governments undertake to ensure the greatest possible uniformity in charts and nautical publications and to take into account, whenever possible, relevant international resolutions and recommendations.

9 Contracting Governments undertake to coordinate their activities to the greatest possible degree in order to ensure that hydrographic and nautical information is made available on a worldwide scale as timely, reliably, and unambiguously as possible.

10 According to resolutions A.817(19), as amended, MSC.232(82) and MSC.530(106) on *Performance standards for electronic chart display and information systems (ECDIS)*, paper charts in specific scale ranges can be considered as appropriate back-up tools if a ship is not equipped with two independently working ECDIS systems.

Analysis

11 As a result of the declining paper chart usage, the UKHO announced the withdrawal from paper chart production and distribution service and consequently, the discontinuation of the corresponding correction system. Some coastal States underlined that they would proceed with the provision and updating of paper charts in appropriate scale ranges to fulfil their SOLAS coastal State obligations.

12 Independent of the continuation of the UKHO chart service, shipowners expect an uninterrupted availability of paper charts of worldwide coverage, preferably by continuing the current International (INT) chart coverage. They are requesting chart coverage for backup, planning, and other purposes.

13 As the UKHO announcement affects Germany, the co-sponsors have considered future scenarios and would like to share the most promising solution.

14 The first and most important precondition is that all coastal States will commit to continuing with the INT chart coverage and production according to the relevant International Hydrographic Organization (IHO) recommendations, either as paper charts or as digital, printable equivalence (e.g. PDF). The second precondition is that chart updates should be provided using the common NtM XML format. The third important precondition is that the corrections should be provided free of charge. Establishing a payment barrier to access the corrections will complicate the process significantly.

15 This allows third parties to gather the corrections, process them and establish a sophisticated supply chain of chart corrections with local, regional or worldwide coverage.

Conclusion

16 Mariners should have the option to receive paper charts and corrections individually in a standardized format with no language barriers. Many business models for chart distribution and chart correction provision are possible.

Recommendation

17 It is recommended to continue the chart production and availability either as paper charts or as digital, printable equivalence (e.g. PDF) from the coastal States, ensuring the INT charts coverage according to the current IHO regulations.

18 If it is decided to discontinue paper charts production, a coastal State should produce printable digital versions of INT charts according to the current IHO regulations.

19 The chart correction should be provided online in the standardized IHO NtM XML format, free of charge.

20 IHO, as a competent body, should coordinate the transition process.

Justification and impact

21 The continuation of paper charts production under national responsibility requires solutions to keep the mariners' workload acceptable. The proposal requires revision and possible adjustment of the current chart distribution and correction system. This may have financial and/or personal impacts on the hydrographic offices, which should engage IT experience to align the current chart corrections to the NtM XML format. However, based on the experiences of Germany and other hydrographic offices engaged in the development of the NtM XML format, the workload is not significant.

Committee and/or subsidiary body(ies) essential to be informed

22 This matter should be assigned to the Sub-Committee on Navigation, Communications and Search and Rescue (NCSR).

Action requested of the Committee

23 The Committee is invited to note the information provided in this document and take action, as appropriate.

ANNEX

The UKHO intends to withdraw from paper chart production by 2026

Withdrawal of ADMIRALTY Standard Nautical Charts (SNCs) and Thematic Charts is in response to more marine, naval and leisure users primarily using digital products and services for navigation

<https://www.admiralty.co.uk/sunsetting-paper-charts>

OVERVIEW

Plans to withdraw UKHO's portfolio of ADMIRALTY Standard Nautical Charts (SNCs) and Thematic Charts is in response to more marine, naval and leisure users primarily using digital products and services for navigation. The ADMIRALTY Maritime Data Solutions digital navigation portfolio can be updated in near real-time, greatly enhancing safety of life at sea (SOLAS).

The phased withdrawal of paper charts from production will take place over a number of years and is anticipated to conclude in late 2026. This will be a carefully managed process, conducted in close liaison with all our customers and stakeholders, including the Maritime and Coastguard Agency (MCA) as well as other regulatory bodies, hydrographic offices, industry partners and distributors.

The rationale for withdrawing from paper chart production

Today's world is unrecognizable to the one that existed in 1795, when our organization was founded. Back then, mariners navigated by the stars using a magnetic compass and surveying with a leaded line marked in fathoms. They could fix where they had been, but not where they were.

Every aspect of modern life is now driven by technology. Mariners use global navigation satellite services combined with electronic navigational charts (ENCs) and inertial navigation systems to determine where they are, in near real-time, to centimetric accuracy. This enables them to navigate and berth vessels of all shapes and sizes more safely and with incredible precision.

Shipping is steering rapidly towards a future underpinned by digital innovations, enhanced connectivity at sea and optimized data solutions, all of which are bringing about the next generation of navigation.

UKHO aims to be at the forefront of this digital transition, continuing to provide the assured and globally trusted ADMIRALTY navigation services that seafarers the world over depend on. Withdrawing from paper chart production will allow us to increase our focus on advanced digital services that meet the needs of today's seafarers.

Importantly, the past few years have seen a decline in demand for paper charts, driven in part by the SOLAS-mandated transition to ECDIS and by the growing recognition of the benefits of digital products and services.

As we look to the future, our core purpose remains the safety of shipping operations and delivering the best possible navigation solutions to achieve that. Whether for the Royal Navy, commercial vessels or other ocean users, our focus is on developing and delivering ADMIRALTY digital services that promote and underpin safe, secure and thriving oceans.

Managing the transition from paperless to digital

Our strategy to withdraw from paper chart production is centred around reducing and eventually removing our paper chart portfolio, in line with market trends and viability, as well as the strategic priorities of our organization. This will happen in a phased and transitional basis, in close consultation with our customers and MCA.

As we withdraw paper charts, we will focus on providing digital alternatives to meet demand and manage the phasing-out process in a way that is sustainable to UKHO. Meanwhile, we will give users ample time and support as they switch to those digital alternatives. The withdrawal of paper charts does not include paper publications, which we will continue to support.

We understand the significance of this announcement, given the history of UKHO's paper chart production and the trust that mariners have placed in ADMIRALTY charts over the generations. We will support users of SNCs during the phased withdrawal of our paper chart portfolio and work with our distributors to help users switch to digital alternatives between now and our planned transition end date of 2026.

(from <https://www.admiralty.co.uk/sunsetting-paper-charts>, dd. 2023-02-03)
