

CIRCULAR LETTER 21/2004
22 March 2004

USE OF THE RCDS MODE OF ECDIS
(Submissions by Australia and Norway to IMO MSC/78)

- Ref: 1. WEND Letter 1/2004, dated 1st February 2004
2. IMO Performance Standards for ECDIS [IMO Resolution A.817 (19),
as amended by MSC.64(67) and MSC.86(70)]

Dear Hydrographer,

WEND Letter 1/2004 forwarded to all Member States a submission from the Australian Maritime Safety Administration (AMSA) to the IMO for consideration at the 78th session of the Maritime Safety Committee in May 2004. The AMSA proposal, with the aim to increase the use of ECDIS and thereby enhance safety of navigation, recommends that ECDIS operating in the RCDS mode not require the carriage of the appropriate, corresponding paper charts. This proposal was made in Doc. [WEND8-10.1A rev.1](#) and is on the IHO website. The Norwegian Delegation to IMO has commented on the AMSA proposal and has offered an alternative proposal which is attached herewith at Annex A.

In response to WEND Letter 1/2004, written comments on the AMSA proposal were received from The Netherlands, Greece, Canada, USA, India, Egypt, Spain and Russia. They have been collated into Doc. [WEND8-10.1B rev.2](#), also on the IHO website. As can be seen, a majority of responses were opposed to the proposal. Further, this topic was thoroughly discussed at the 8th WEND meeting in Tokyo, 4-5 March 2004, and concern was expressed over a possible disincentive to ENC production and the fundamental differences between ENC and RNC. While a vote was not taken, Norway, France, Netherlands, Portugal, Sweden, China, Italy, South Africa, New Zealand, Chile and India spoke against the AMSA proposal (in addition to the opposition expressed by Greece, Russia and Spain, as reported in WEND8-10.1B); however, UK, USA, Australia, Canada did support the AMSA submission. Norway stated that they were preparing an alternative proposal that would support AMSA's aim of increasing ECDIS use but not through universal acceptance of RCDS mode without accompanying paper charts where ENCs are not available. The WEND Committee recommended that the IHB send both submissions to Member States seeking their position / views on them.

As the relevant technical organization for chart production, the IHO should be prepared to offer a clear and reasoned response should IMO/MSC so request. Member States are requested to liaise with their Maritime Safety Administrations and state their position with respect to the two proposals. **Your response, using the form at Annex B, is kindly requested by 30 April 2004.**

On behalf of the Directing Committee
Yours sincerely,

(original signed)

Rear Admiral Kenneth BARBOR
Director

Encl: Annex A "Comments on MSC 78/24/3 by Australia regarding ECDIS,
submitted by Norway"
Annex B - Response Form

INTERNATIONAL MARITIME
ORGANIZATION

IMO

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MARITIME SAFETY COMMITTEE
78th session
Agenda item 24MSC 78/24/x
15 March 2004
Original: ENGLISH

WORK PROGRAMME

Comments on MSC 78/24/3 by Australia regarding ECDIS

Submitted by Norway

SUMMARY

<i>Executive summary:</i>	Referring to document MSC 78/24/3 by Australia, Norway supports the aim to promote the greater use of ECDIS, but can not support the proposal to permit the use of ECDIS in RCDS mode without additionally having to carry and use paper charts. We also provide additional concerns and proposal related to the subject of encouraging more widespread use of ECDIS.
<i>Action to be taken:</i>	Paragraph 13
<i>Related documents:</i>	Resolution A.817(19), Resolution MSC.86(70), annex 4, Resolution A.958(23), S/N Circ 207, MSC 78/4/2 and MSC 78/24/3

Introduction

1. This document is submitted in accordance with the provisions of paragraph 4.10.5 of the Guidelines on the organization and method of work (MSC/Circ.1099). The document provides comments by Norway on the proposals related to the use of ECDIS presented in document MSC 78/24/3 by Australia.
2. The main purpose of the proposal presented by Australia in document MSC 78/24/3, is clearly to promote wider use of ECDIS. Norway fully supports this purpose, which is regarded as timely and relevant considering the improvements on safety of navigation which may result from increased use of ECDIS. In this regard we also draw attention to document MSC 78/4/2 by Norway, presenting a recent FSA study on Navigational Safety of large Passenger Ships. This study clearly indicates that installation and use of ECDIS is cost efficient.
3. However, there are some other aspects to the proposals by Australia that give reason for serious concerns: Australia proposed to *delete* the present condition included in the revised ECDIS performance standard saying as follows: When operating in the RCDS mode, ECDIS equipment should be used *together with an appropriate portfolio of up-to-date paper charts*. In the following we will provide additional information and comments on this subject.

Discussion

4. When considering safety aspects related to the use of ECDIS, it is essential to take into account of the type and quality of the chart data utilized and displayed. As defined in the IMO Performance Standard for ECDIS (Res. A.817(19) as amended by Res. MSC.86(70)) there are two fundamentally different types of chart data which may be used and displayed by an ECDIS. Depending on the chart data used, ECDIS equipment may be operated in two different modes:
 - The ECDIS mode when Electronic Navigational Chart (ENC) is used (ENC: means the database, standardized as to content, structure and format, issued for use with ECDIS on the authority of government-authorized hydrographic offices); and
 - The RCDS mode when Raster Navigational Chart (RNC) is used (RNC: means a facsimile of a paper chart originated by, or distributed on the authority of, a government-authorized hydrographic offices)
5. According to SN/Circ.207 (which was issued subsequent to MSC having adopted the amendments introducing the RCDS Mode of operation) there are a number of fundamental differences between the two modes of operation. The circular include a long list of *limitation* of the RCDS mode which is drawn to the attention of mariners. We do not dispute that “there have been considerable advances in technology in relation to ENCs since the original performance standards were adopted” as stated by Australia, but we can not agree that these technological advances constitute a basis for eliminating the requirement that the RCDS mode of operation can only be used together with an appropriate folio of up to date paper charts. Consequently, the differences between RCDS and ECDIS, as identified in SN/ Circ.207, still remain valid. Therefore; removing the requirement for ships to carry paper charts when operating in RCDS mode, would compromise safety.
6. Additional arguments may also be found in the following provisions:
 - The aim of SOLAS V/15 paragraph 3, requesting essential information to be clearly and unambiguously presented, using standardized symbols and coding systems, is not supported by ECDIS in RCDS mode of operation, as the presentation may vary considerably dependant on the source of the RNC*. This aim is, however, supported by ECDIS using ENC.
 - The aim of SOLAS V/15 paragraph 7, requesting minimizing and detection of human errors through monitoring and alarm systems, is not supported by ECDIS in RCDS mode of operation, as automatic alarms (e.g. anti-grounding) are not triggered by the RNC itself*. This aim is, however, supported by ECDIS using ENC.
 - Resolution A.958(23) on the Provision of Hydrographic Services, invites Governments to “promote, through their national maritime administrations, the use of Electronic Chart Display and Information System (ECDIS) together with the use and further production of Electronic Navigational Charts (ENCs).” The text of this resolution can in no way be interpreted as support for the Australian proposal to accept using the RCDS mode without carrying paper charts.

* Reference is made to SN/ Circ.207 Differences between RCDS and ECDIS.

7. We are also concerned that if the Australian proposal is accepted, this would in effect make RNC equivalent to ENC for the purpose of complying with the requirements of SOLAS Chapter V. We are convinced that such a decision would most probably lead to decreasing efforts in producing and issuing ENC's in the future, which would be a step in the wrong direction in relation to safety at sea.
8. The limited coverage of ENC's, as also mentioned in MSC 78/24/3 by Australia, is recognised. However, the thorough assessment of the present situation requires the consideration of all relevant aspects, including:

USE OF THE RCDS MODE OF ECDIS

Response Form

(to be returned to the IHB info@ihb.mc by 30 April 2004)

Member State:

In order for the IHO to be prepared to offer a clear and reasoned response should IMO/MSC so request, you are kindly requested to answer the following:

1. Do you support the Australian submission to MSC 78 "Proposal to consider permitting ships to use the Raster Chart Display System (RCDS) mode of ECDIS, without the requirement to carry paper charts" (MSC 78/24/3), as contained in Doc. [WEND8-10.1A rev.1?](#)

YES NO

Comments:
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2. Do you support the Norwegian proposal to MSC 78 "Comments on MSC 78/4/3 by Australia regarding ECDIS", as contained in Annex A to this CL which recommends:

(a) A reasonable phase-in schedule for mandatory requirements for ships to carry ECDIS equipment and to use ENC where available.

YES NO

Comments:
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(b) A clarification of the definition of "appropriate folio of up to date paper charts" with respect to paper charts to be carried for areas without ENC coverage and for paper charts to be carried for ECDIS back-up purposes (unless an electronic ECDIS back-up is installed).

YES NO

Comments:
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Date:

Signature: