Subject: IHO ISSUES SAFETY NOTICE ON RELIABILITY OF ECDIS UNITS

Dear Shipowners/Operators and Masters,

The International Hydrographic Organization (IHO) after reviewing about 500 reports from sea going vessels using ECDIS units, representing 15 different manufacturers, issued a safety notice concerning the reliability of ECDIS. They report:

- about one-third of the type-approved ECDIS units for which it has received reports appear to function as expected,
- another third display all significant underwater features, but the isolated danger symbol required to be shown under certain conditions is not always used, and
- most of the remaining third failed to display some significant underwater features in the "Standard" display mode.

Under various conditions, mostly related to safety depth settings and other variable factors, these underwater features can include some types of wrecks and other obstructions. All of these features are displayed in the "Full display" or "All display" mode.

One manufacturer, Japan Radio Co. Ltd. (JRC) confirmed that earlier versions of its ECDIS will not display some types of wrecks and underwater obstructions in any mode. This means that, for these models of JRC ECDIS, mariners must navigate in conjunction with paper charts in order to ensure that all wrecks and underwater obstructions can be identified. JRC has issued a notice alerting its customers to this problem and will make an upgrade package available. JRC has issued a notice alerting its customers and will make an upgrade package available shortly. The company notice is available at: http://www.jrc.co.jp/eng/product/marine/whatsnew/20100526/index.html.

IHO cautions that mariners using ECDIS should check their ECDIS equipment using the IHO ENC Data Presentation and Performance Check. ECDIS manufacturers should be contacted, if the equipment does not operate properly and Master’s should exercise appropriate caution until the issue is resolved.

In all cases, where the ECDIS is found not to operate as indicated by the IHO ENC Data Presentation and Performance Check, the ECDIS manufacturer or their ECDIS maintenance organization should be contacted to seek relevant upgrades to their equipment.

If you have any questions please contact our Safety Department at (703)251-2409, or email safety@liscr.com

Enclosure: IHO ECDIS Safety Notice

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SAFETY NOTICE ABOUT THE RELIABLE OPERATION OF ECDIS


Dear Hydrographer,

1 Reference a) provided information about feedback from mariners resulting from the use of the IHO ENC Data Presentation and Performance Check originally issued in October 2011. The CL also provided information about the report that will be presented to the IMO Maritime Safety Committee at its 90th meeting (MSC90) in May this year. As indicated in the reference, the IHB is continuing to analyse reports from sea as they are being received.

2 At the end of February, the IHB had received nearly 500 reports from sea. These reports cover 15 out of approximately 25 recognised manufacturers of type-approved ECDIS. The 15 manufacturers represent by far the most popular brands of ECDIS being used at sea today.

All ECDIS Installations

3 About a third of the manufacturers’ systems reported to the IHB appear to function as expected in the checks. A further third of the systems display all significant underwater features, including underwater obstructions, but the isolated danger symbol required to be shown under certain conditions is not always used. This issue is unlikely to have a significant impact on safe navigation. Most of the remaining third of the systems reported to the IHB failed to display some significant underwater features in the "Standard" display mode. Under various conditions, mostly related to safety depth settings and other variable factors, these underwater features can include some types of wreck and other obstructions. All these features are displayed in the "Full display" or "All display" mode.

JRC ECDIS

4 One manufacturer, Japan Radio Co. Ltd (JRC), has confirmed to the IHO that earlier versions of its ECDIS will not display some types of wreck and underwater obstructions (including stranded wrecks) in any display mode. This means that, for these models of JRC ECDIS, the mariner must navigate in conjunction with paper charts in order to ensure that all wrecks and underwater obstructions can be identified. JRC has issued a notice alerting its customers to this problem and will make an upgrade package available to its customers shortly. The notice from JRC can be downloaded at:

   http://www.jrc.co.jp/eng/product/marine/whatsnew/20100526/index.html

A copy of the notice is included at Annex A. JRC has requested assistance from the IHO and its Member States to ensure that all affected vessels using JRC ECDIS are alerted.

Proposal for Action by IHO Member States

5 In view of the potentially serious consequences if mariners are not made aware of shortcomings in some ECDIS equipment being used at sea, the Directing Committee strongly encourages all Member States to promulgate the information contained in this Circular Letter by all available means to all seafarers using ECDIS.
In summary:

- All mariners using ECDIS should be encouraged to check their ECDIS equipment using the IHO ENC Data Presentation and Performance Check. This will enable them to determine whether their ECDIS requires that the display be operated in “full display” mode in order to display all important charted features.

- In the case of JRC ECDIS, mariners should use the IHO ENC Data Presentation and Performance Check to determine if they need to consult paper charts until such time as the ECDIS equipment can be upgraded.

In all cases, where the ECDIS is found not to operate as indicated by the IHO ENC Data Presentation and Performance Check, seafarers should be advised to contact the ECDIS manufacturer or their ECDIS maintenance organisation to seek relevant upgrades to their equipment.

A short text that Member States may wish to consider as a basis for issuing the relevant information to mariners is included at Annex B.

On behalf of the Directing Committee
Yours sincerely

[Signature]
Robert WARD
Director

Annexes:
A. Copy of JRC Notice (English only)
B. Important Safety Notice about the Reliable Operation of ECDIS
Important Notice: About Symbol Display of Electronic Chart Display and Information System (ECDIS)

Dear Valuable Customers,

Thank you for your patronage of our products.

We have discovered that a wreck symbol may not be displayed on the Electronic Chart Display and Information System (hereafter referred to as ECDIS) which is manufactured by JRC.

We would like to inform you urgently on this navigation safety matter.

1. Phenomenon:

The Wreck symbol are not displayed on the JRC ECDIS regardless of the display mode.

As shown in the figure below the Wreck depicted by the symbol showing a portion of hull or superstructure in a sea area that is deeper than the safety contour when using "ENC" or "C-MAP Ed2.0" is not displayed.
2. **Objective equipment type:**
   ECDIS, Chart Radar, Simplified Chart Display, Route Planning System, Navigation Workstation

3. **Action to be taken:**
   Please be aware of this phenomenon when operating the equipment and verify by other means such as the use of paper charts.

Now JRC is investigating all equipments and will inform the result as soon as possible.

Thank you very much for your cooperation.

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For further information: please contact

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IMPORTANT SAFETY NOTICE ABOUT THE RELIABLE OPERATION OF ECDIS

ALL ECDIS. Following an announcement by the International Maritime Organization (IMO) concerning potential display anomalies in some ECDIS systems (see IMO MSC Circ 1391), the International Hydrographic Organization (IHO) issued an ENC Data Presentation and Performance Check in October 2011. This check is intended to assist mariners and to help determine the extent of the issues. Reports from sea received by the IHO confirm that a number of manufacturers’ ECDIS fail to display some significant underwater features in the "Standard" display mode. In order that all significant objects are visible to the mariner, these ECDIS must be operated in "Full display" or "All display" mode until a software upgrade is made available by the manufacturer. Mariners are strongly recommended to use the IHO ENC Data Presentation and Performance Check issued through ENC service providers and also available directly from the IHO website (www.iho.int) to check the operation of their ECDIS and to determine whether their system is affected.

JRC ECDIS. The Japan Radio Co. Ltd (JRC) has confirmed to the IHO that earlier versions of its ECDIS will not display some types of wreck and underwater obstructions (including stranded wrecks) in any display mode. This means that these models of JRC ECDIS must be used in conjunction with paper charts in order to ensure that all wrecks and underwater obstructions can be identified by the mariner. JRC has issued a notice alerting its customers to this problem (available at: http://www.jrc.co.jp/eng/product/marine/whatsnew/20100526/index.html ). Mariners using JRC ECDIS should use the IHO ENC Data Presentation and Performance Check to determine whether their system is affected. If it is affected, then the JRC ECDIS should be used in conjunction with paper charts until an equipment software upgrade is available from JRC. Mariners should contact JRC or their JRC equipment support organisation to arrange suitable remedial action.