موضوع:اطلاعیه فنی ۰۵-۲۰۱۷

راهنمای استفاده از ECDIS جهت شناورهای
ورودی به بنادر استرالیا

شماره: ۳۲/۹۶/۰۰۲۱

تاریخ : ۱۳۹۶/۳/۱۶

**All respectful ICS' Customers/ Surveyors
With Gratitude,**

Guidance on ECDIS for ships calling at
Australian ports has been sent in the form of a
Technical Information.

The electronic file of this document could be
found at the following address:

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Also this Electronic File will be sent via email
to all respectful ICS Surveyors.

کلیه بازرسان و مشتریان محترم ICS

با سلام و احترام

راهنمای استفاده از ECDIS جهت شناورهای ورودی به
بنادر استرالیا در قالب اطلاعیه فنی، بپیوست حضورتان ایفاد
می گردد.

نسخه الکترونیکی اطلاعیه فنی مذکور در شبکه داخلی
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می گردد.

**A.M.Rezvan Panah
Manager of Convention & Legislation
Department
ICS**

رضوان پناه

مدیر واحد کنوانسیون ها و مقررات دریایی

موسسه رده بندی ایرانیان

Code: ICS32F016/2

■ موسسه رده بندی ایرانیان

نشانی دفتر مرکزی : تهران خیابان مطهری ، خیابان قائم مقام فراهانی ،بالاتر از میدان شعاع ، کوچه شبنم
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Guidance on ECDIS for ships calling at Australian ports

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موضوع:اطلاعیه فنی ۰۵-۲۰۱۷

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To: Ship Owners/operators and masters are advised to be guided by below guideline and ensure regular maintenance of both ECDIS hardware and software.

The phased carriage requirement of Electronic Chart Display and Information System (ECDIS) is underway and is scheduled to be completed by 2018.

Comprehensive guidance is available in International Maritime Organization (IMO) Circular MSC.1/Circ.1503 ECDIS Guidance for Good Practice. All ships masters, navigating officers and operators of ships fitted with ECDIS are encouraged to use this guidance to facilitate the safe and effective use of ECDIS.

This Marine Notice highlights areas relevant to the safe and proper operation of ECDIS for ships visiting Australian ports. It also provides information on AMSA's expectations for ECDIS compliance during port State control (PSC) inspections.

1- Software Quality Assurance

Ship owners and operators need to ensure careful management and regular maintenance of both ECDIS hardware and software. MSC.1/Circ.1503 offers guidance on maintenance of ECDIS

software and identifies the need to keep ECDIS updated to meet the current International Hydrographic Organization (IHO) standards.

The IHO published new editions of the S-52, S-63, and S-64 standards in August 2015. The following IHO standards apply to all newly installed ECDIS equipment:

● Edition 6.1 of Publication S-52 – Specification for Chart Content and Display Aspects of ECDIS

● Edition 4.0 of S-52 Annex A - IHO ECDIS Presentation Library

● Edition 1.2.0 of Publication S-63 – IHO Electronic Navigational Chart (ENC) Data Protection Scheme

● Edition 3.0 of Publication S-64 – IHO Test Data Sets for ECDIS.

The previous edition of the S-52 standard (Ed 6.0) will remain valid until 31 August 2017. After this date it will not display the latest presentation library. To display the latest approved presentation library, existing ECDIS systems will require upgrading to the latest IHO standards before 31 August 2017. In some cases ECDIS equipment may require replacement if it cannot be updated to the latest standards.

2- Anomalies

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A list of known ECDIS anomalies is included in MSC.1/Circ.1503. Due to the complex nature of ECDIS, and because it involves a mix of hardware, software and data, it is possible (but considered not likely) that further undetected anomalies may exist. The existence of anomalies highlights the importance of maintaining ECDIS software to ensure the correct display of electronic navigational charts.

To help understand the extent of these anomalies, navigating officers are encouraged to report any such anomalies, including specific details regarding fitted equipment, to their flag State authority.

3- ECDIS Data Presentation and Performance Check dataset

The IHO has produced an ECDIS Data Presentation and Performance Check procedure. There are two separate procedures which depend on the Edition of IHO Presentation Library loaded on the ECDIS. The procedures are available on the IHO website.

4- Chart Carriage Requirements

The International Convention for the Safety of Life at Sea (SOLAS) Chapter V Regulation 27 states that all nautical charts necessary for the intended voyage shall be adequate and up to date.

For ships using ECDIS to meet the chart carriage requirement of SOLAS, all ENCs (and any Raster Navigation Chart (RNCs) must be of the latest available edition and be kept up to date.

5- Mode of ECDIS operation

ECDIS may be operated in one of two modes:

1. ECDIS mode when ENC's are used;

Or

2. Raster Chart Display System (RCDS) mode, when suitable ENC's are not available and (RNC) are used instead.

RCDS mode does not have the same functionality as ECDIS mode and can only be used together with an appropriate folio of up to date paper charts. MSC.1/Circ.1503 provides guidance on the limitations of operating ECDIS in RCDS mode.

All Australian waters are covered by **ENCs** and therefore **ECDIS should not be operated in RCDS mode** in these waters. Where lack of ENC coverage requires navigation in RCDS mode, mariners should critically consider the implications of not having a look-ahead capability when in this mode.

6- ECDIS training requirements

The International Convention on the Standards of Training, Certification and Watch keeping for Seafarers (STCW), requires all officers who carry out

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navigational tasks to be appropriately trained. All officers in charge of a navigational watch must have a thorough knowledge of and ability to use nautical charts and nautical publications (see STCW Code Table A-II/1). The definition of a nautical chart in SOLAS V/2 includes a special-purpose map or book, or "a specially compiled database". This includes ENCs and RNCs, relating to the use of ECDIS. All masters and officers in charge of a navigational watch on ECDIS-fitted ships who commenced an approved education and training program before 1 July 2013 will need to have undertaken approved ECDIS training.

7- Port State Control inspections

AMSA's PSC Inspectors focus on how ships meet the SOLAS requirements for chart carriage and the safe and effective conduct of navigation tasks. PSC Inspectors may take account of ECDIS-related issues including:

● ECDIS equipment is appropriately recorded in the Record of Equipment – Safety Equipment Certificate

● Listing of ECDIS as critical equipment in the Safety Management System (SMS)

● documented procedures and instructions for the use of ECDIS are included in the SMS and that they are

understood by all officers responsible for navigation

● ECDIS type approval certificate, confirming compliance with relevant IMO performance standard and the International Electro technical Commission (IEC) test standard

● ECDIS software is maintained to the latest applicable IHO standards

● Use of latest edition official ENCs, updated and corrected to the latest available updates and notices to mariners

● Adequate independent back-up arrangements (as detailed on the Record of Equipment), ensuring the vessel can be safely navigated for the remainder of the voyage in the event of an ECDIS failure

● Approved ECDIS generic training has been undertaken by the master and officers in charge of a navigational watch

● Master and navigating officers are familiar with the operation of the ECDIS equipment fitted and can demonstrate operational competency

● Conformance and alignment with input from sensors (e.g. position fixing system, gyro compass and speed and distance measuring device) and presentation of such information on the ECDIS display

● Evidence of periodic tests and checks of the ECDIS carried out in accordance

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with the SMS and manufacturer's requirements

• ECDIS planning and monitoring settings are appropriate to the ship's dimensions and area of operations (e.g. cross track limit, safety depth and safety contour).

8- ECDIS flow charts and Frequently Asked Questions (FAQ's)

A set of ECDIS flow charts and FAQ's are available on AMSA's website. The flow charts assist PSC inspectors in assessing the carriage requirement and use of ECDIS on board. PSC Inspectors consider all relevant circumstances, including steps taken to reduce risk and improve safety, when assessing ECDIS deficiencies and appropriate remedial actions.

AMSA's FAQs on ECDIS provides information on regulatory matters, charting, software and training.