



All respectful ICS surveyors/customers

This Technical Information is published to presents the survey instruction for Electronic Nautical Publications.

It is necessary to mention that, the requirements of ECDIS according to relevant regulations of SOLAS can be applied separately.

The document related to the above mentioned subject and also the supplementary attachments are accessible through the following address on ICS Network (ICS-WAN):

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کلیه بازرسان و مشتریان محترم ICS

با سلام و احترام

باتوجه به لزوم دقت در بازرسی شناورها و صحت گواهینامه های صادره از موسسه رده بندی ایرانیان، راهنمای بازرسی Electronic Nautical Publications (ENP) حضورتان ارسال می گردد.

لازم به ذکر است علاوه بر الزامات ENP ، الزامات سولاسی لازم ECSIS (Electronic Chart Display & Information System) نیز بصورت مجزا از ENP قابل اجرا می باشد.

این بخشنامه به انضمام پیوست های تکمیلی آن در بخش CLD از شبکه داخلی موسسه با آدرس ذیل قابل دسترسی می باشد.

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ع. غلام ابوالفضل

سرپرست واحد کنوانسیون ها و مقررات دریایی
موسسه رده بندی ایرانیان

ترک دعوی: اگرچه در گردآوری کلیه راهنماهای فنی ارائه شده توسط موسسه رده بندی ایرانیان، تا حد ممکن تلاش در دقت و صحت محتوا صورت گرفته است، این موسسه متحمل مسئولیتی در قبال هرگونه اشتباهات، خسارت های احتمالی و جرانی که ممکن است در ارتباط با بکار گیری مفاهیم و مطالب ارائه شده رخ دهد، نمی باشد.

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1- GENERAL

Nautical publications is a technical term used in maritime circles describing a set of publications, generally published by national governments, for use in safe navigation of ships, boats, and similar vessels. The International Convention on the Safety of Life at Sea (SOLAS) includes a requirement for all ships to carry to up-to-date nautical charts and publications for the intended voyage. Progressively from 2012, the chart carriage requirement for certain classes of vessels is to be satisfied by electronic means using an Electronic Chart Display and Information System (ECDIS).

This document has been produced to help clarify some of the uncertainties. It is not intended to replace or amend national or international rules and regulations. Readers should always refer to the relevant national administration or Flag State for the latest detailed information.

SOLAS chapter V Regulations 19 & 27 especially describes the requirements & instructions for this matter.

Under SOLAS, charts and nautical publications in electronic form can be used to meet SOLAS V carriage requirements provided suitable back-up arrangements are in place. As such, electronic nautical

publications must meet the same requirements as the hard copies:

- For the area to be navigated must have onboard and use the most recent editions;
- Must be published or issued by the appropriate authority as specified;
- Must be correct and up-to-date, based on information that is contained in the Notices to Mariners, Notices to Shipping or radio navigational warnings.

the installation and survey requirements for electronic nautical publications (hereinafter "ENP") required by SOLAS V/Reg.19.2.1.4, 19.2.1.5 and Reg.27 as followings;

2- SOLAS V/Reg.19.2.1.4:

2-1) Application:

All ships irrespective of size

2-2) Nautical charts and nautical publications to plan and display the ship's route for the intended voyage and to plot and monitor positions throughout the voyage. An electronic chart display and information system (**ECDIS**) is also accepted as meeting the chart carriage requirements of this subparagraph.

2-3) Back-up arrangements to meet the functional requirements of paragraph 1-2, if this function is partly or fully fulfilled by electronic means;

3- SOLAS V/Reg.27:

3-1) Nautical charts and nautical publications, such as sailing directions, lists of lights, notices to mariners, tide tables and all other nautical publications necessary for the intended voyage, shall be adequate and up to date. According to the above, the provision of nautical publications requirements can be an electronic type, mostly by using personal computers and specific software.

However, no performance standards for such ENP has been provided by IMO, following survey instruction, based on the guidance on the Use of Admiralty Digital Publications (ADP), should be followed where ships provided with ENP on board. Additionally, where any instruction was given by ship's flag administration, such instruction should be applied to the ships of that flag.

3-2) System Requirements:

Computer systems used for ENP should meet the stated hardware and software requirements of the product. Computers used to run other software applications simultaneously may require enhanced memory and disc space to avoid slow software response times.

3-3) System location:

Nautical publications are required for voyage planning and must also be easily accessible by ships' officers at all times during the passage. For this reason ENP systems must be located on the **bridge** and should be conveniently situated close to either the planning or voyage monitoring stations.

3-4) Back up:

To ensure continuous availability of the ENP data in the event of computer system failure an appropriate backup must be provided. The backup arrangement can be a second computer or other alternatives, such as printing out those parts of the publication relevant to the voyage can be valid if the printouts are able to convey all necessary information (e.g. in color if required).

Where a vessel uses a central server / network to provide backup, an appropriate workstation should be identified as the secondary system. This should be documented in the ship's bridge procedures. If this secondary system is located away from the bridge then it is recommended that

it is connected to a printer to enable navigationally significant data to be made available on the bridge.

3-5) Power supply:

The primary system must be available at all times during the voyage and therefore the power should be supplied from ship's main source of electrical power and also emergency source of electrical power. An uninterruptible power supply (UPS) may be useful to eliminate fluctuations in the ship's main supply that would cause interruption to the primary system. However UPS can normally only operate a computer system for a short period and in the event of power failure it cannot normally be considered to be the emergency source of power for the system.

3-6) Computer hardware:

Computer hardware used for ENP must not interfere with the operation of other bridge systems. To achieve this and to ensure compliance with the requirements of Regulation 17, Chapter V of SOLAS 'Electromagnetic compatibility', it is recommended to use computer hardware designed to meet the environmental conditions defined in IEC60945. Type approval for computer hardware is not required.

3-7) Display size:

Screen size and resolution should be chosen to ensure a clear display of navigational information (taking into account the complexity of the display, the distance the screen is to be viewed from, the ambient light conditions etc). A minimum screen size

of 350mm (diagonal) is strongly recommended.

3-8) Display brightness:

The display should be able to be varied in brightness and contrast to enable viewing in all ambient light conditions. When used at night, care should be taken to ensure that screen glow and keyboard lighting do not affect the night vision of bridge watch staff.

3-9) Updating publications:

To meet the requirements of Regulation 27, Chapter V of SOLAS, ENP should provide a facility for incorporating update information at least at the same frequency as that provided in any paper equivalent. Updates for ENP can be provided by CD media, email or downloaded using the internet. Updates should be applied to both primary and backup systems as soon as is practical.

3-10) The surveyor should be marked "PROVIDED" in relevant items which are as follows:

3-10.1) Form P of Passenger Ship Safety Certificate:

"Provided" should be marked for items 2.3 and 2.4 of table "5. DETAILS OF NAVIGATIONAL EQUIPMENT"

3-10.2) Form E of Cargo Ship Safety Equipment Certificate:

"Provided" should be marked for items 2.3 and 2.4 of table "3. DETAILS OF NAVIGATIONAL EQUIPMENT"

3- Detail of navigational system and equipment		۳- فهرست تجهیزات ناوبری
	Item	Actual Provision
1.1	Standard magnetic compass*	-----
1.2	Spare magnetic compass*	-----
1.3	Gyro compass*	-----
1.4	Gyro compass heading repeater*	-----
1.5	Gyro compass bearing repeater*	-----
1.6	Heading or track control system*	-----
1.7	Pelorus or compass bearing device*	-----
1.8	Means of correcting heading and bearing	-----
1.9	Transmitting heading device (THD)*	-----
2.1	Nautical chart / Electronic chart display and information system (ECDIS)**	-----
2.2	Back up arrangement for ECDIS	-----
2.3	Nautical publication	Provided
2.4	Back up arrangement for electronic nautical publication	Provided
3.1	Receiver for a global navigation satellite system / terrestrial radio navigation system**	-----
3.2	9 GHz radar*	-----
3.3	Second radar(3 GHz/9GHz**)*	-----
3.4	Automatic radar plotting aid (ARPA)*	-----
3.5	Automatic tracking aid*	-----
3.6	Second automatic tracking aid*	-----
3.7	Electronic plotting aid*	-----
4.1	Automatic identification system (AIS)	-----
4.2	Long-range identification and tracking system	-----
5.1	Voyage data recorder(VDR)**	-----
5.2	Simplified voyage data recorder (S-VDR)**	-----
6.1	Speed and distance measuring device (through the water)*	-----
6.2	Speed and distance measuring device (over the ground in the forward and athwart ship direction)*	-----
6.3	Echo sounding device*	-----
7.1	Rudder, propeller, thrust, pitch and operational mode indicator* ^{**}	-----
7.2	Rate and turn indicator*	-----
8	Sound reception system*	-----
9	Telephone to emergency steering position*	-----
10	Daylight signaling lamp*	-----
11	Radar reflector*	-----
12	International code of signal	-----
13	IAMSAR Manual, Volume III	-----
14	Bridge navigational watch alarm system (BNWAS)	-----

TABLE 3- DETAILS OF NAVIGATIONAL EQUIPMENT

* Alternative means of meeting this requirement are permitted under regulation V/19. In case of other means they shall be specified.

** Delete as appropriate.