



Marine Notice 02/2019
Supersedes 17/2014

Responsible navigational practices

This notice draws attention to navigational practices that masters and officers in charge of a navigational watch on ships operating in Australian waters should follow.

It also provides information on nautical charts and nautical publications that the Australian Maritime Safety Authority considers appropriate for safe navigation, in accordance with Chapter V of the *International Convention for the Safety of Life at Sea* (SOLAS).

Responsible navigational practices include:

- use a variety of navigational aids to verify the ship's position
- verify global navigation satellite system (GNSS) positional information by terrestrial means, such as visual bearings and/or by radar
- wherever possible, use radar parallel index techniques to monitor a ship's adherence to its planned track
- determine the estimated position of the ship, taking into account leeway, set and drift
- use soundings, clearing bearings and transits as cross-checks for position fixes and course alteration points
- take into account the categories of zones of confidence (CATZOC), which enables an assessment of the limitation of the hydrographic data from which the chart was compiled and the resulting degree of risk
- fix the ship's position at frequent and regular intervals, including when a pilot is on board
- ensure that the ship has the latest Maritime Safety Information for the area by configuring the INMARSAT SafetyNET Enhanced Group Call (EGC) receiver correctly
- be aware of and practice human factors principles, including fatigue and bridge resource management techniques
- cooperate with any available vessel traffic service.

Owners and masters are reminded that:

- New personnel should receive proper familiarisation with their watch-keeping duties and with the ships' navigational equipment in accordance with sections 6 and 7 of the ISM code. This is a requirement under section 10 of *Marine Order 58 (Safe Management of Vessels)* which requires the owner of a vessel to ensure that the vessel's safety management system is implemented in compliance with the international safety management (ISM) code and ISM guidelines.

- Australia's *Marine Order 27 (Safety of navigation and radio equipment) 2016* implements the navigational requirements of SOLAS Chapter V including:
 - Regulation 19, which specifies carriage requirements for shipborne navigational systems and equipment.
 - Regulation 27, which specifies that nautical charts and nautical publications necessary for the intended voyage must be adequate and up to date.
 - Regulation 34, which specifies that prior to proceeding to sea that the master shall ensure that the intended voyage has been planned using the appropriate nautical charts and nautical publications for the area concerned, taking into account the guidelines and recommendations developed by the organisation.

Voyage planning and execution

The guidelines that apply to voyage planning for the purposes of Regulation 34 are set out in IMO Resolution A.893 (21).

The components of voyage planning as set out in IMO Resolution A.893 (21) are:

- **appraisal** which involves gathering all information relevant to the intended voyage
- **planning** of the entire voyage from berth to berth, including those areas requiring a pilot
- **execution** of the voyage plan
- **monitoring** progress of the ship during the execution of the plan.

Masters should ensure that:

- voyage planning takes into account the potential for reasonable unplanned diversions, for example due to change of commercial orders or emergencies
- any changes made to the voyage plan are consistent with the IMO guidelines and are clearly marked and recorded in the ship's official documents
- where electronic chart display and information system (ECDIS) is used, the voyage plan should be validated by the route-checking function, using applicable safety parameters, as well as a visual check of the intended tracks using an appropriate scale for viewing
- any amendment to the voyage plan while on passage should be thoroughly checked, and approved by the master before implementation
- when using ECDIS, electronic navigational charts (ENC) should not be over-scaled
- before the start of pilotage, the voyage plan is plotted on any chart/s that are delivered via a boarding pilot for that segment of the voyage
- alterations to save time, or unplanned deviations to satisfy tourists or local customs, which exceed the parameters of the voyage plan, for example—lateral safety margins—are not undertaken
- any discrepancies in aids to navigation—for example light characteristics being different from those published, should be reported to JRCC Australia or a local coast radio station

- any discrepancies in charted information, or any uncharted hazards should be reported to the Australian Hydrographic Office by email datacentre@hydro.gov.au or Hydrographic Note <http://www.hydro.gov.au/feedback/AA217160-hydro-note.pdf>

Responsibility for safe navigation with a pilot embarked

Masters and officers in charge of a navigational watch are responsible for the safe navigation of their ships at all times, including when a pilot is on board. The master should ensure the bridge remains adequately manned and under the responsibility of a certificated officer in charge of a navigational watch. The bridge team should support the pilot by:

- maintaining a good lookout and situational awareness at all times
- providing expertise in the use of bridge equipment and systems
- discussing, agreeing and communicating to the entire bridge team, any change to the ship's voyage plan advised by the pilot. In case of any required change, the original voyage plan should be amended and documented
- monitoring the pilot's actions, promptly seeking clarification as necessary and/or calling the master when in doubt. Note—the officer in charge of a navigational watch may need to take whatever action is deemed necessary, before the master arrives, to ensure safety of navigation.

Australian nautical charts and publications

Australia's official nautical charts and publications are issued by the Australian Hydrographic Office on authority of the Australian Government.

When using ECDIS officers in charge of a navigational watch should be familiar with the operation of their particular system, the ship's unique setup for look-ahead, lateral and under-keel safety margins, the meaning of ENC symbology and safety implications of display options.

An appropriate nautical chart is one of a suitable scale for the navigational task at hand, noting that the chart's scale determines the level of detail that is provided. Therefore the largest scale charts produced should always be used.

Small scale charts depict large areas. They are suitable for overall voyage planning and ocean transit purposes. Small scale charts have fewer details about aids to navigation, dangers, coastal features and infrastructure, particularly where larger scale charts exist. Significant depth detail is omitted. Small scale charts are generally unsuitable for navigation in areas less than 30 metres depth, areas adjacent to the coast or close to navigation hazards. Small scale charts contain information about the limits and identity of larger scale charts. Whether in electronic or paper format, small scale charts are neither intended nor suitable for coastal navigation.

Large scale charts should be used when navigating close to the coast, reefs and other navigation hazards. These charts cover smaller areas and provide more detail about depth, dangers, aids to navigation and coastal features. Generally, Australian charts provide continuous coverage at a scale of 1:90,000 (ENC) or 1:150,000 (paper) or larger when navigating within 24 nautical miles of land or major offshore features, except in remote areas.

The Australian (AU) series of ENC replicates the content of paper charts on a grid-based scheme of 1, 10 and 30 degree squares. There are separate ENCs for each port. These are available in Australia through the AusENC service, internationally through the United Kingdom Hydrographic Office's Admiralty Vector Chart Service, as well as other services affiliated with the International Centre for ENC (IC-ENC). Details of available Australian ENC are provided at www.hydro.gov.au.

Australian (AUS) series paper charts are available from chart agents world-wide. The series is also partially reproduced by the United Kingdom Hydrographic Office and covers major Australian shipping routes and commercial ports. Mariners should refer to AUS charts 5000 and 5001 on the AHO website at: www.hydro.gov.au. These show details of all available AUS charts. Mariners should not assume that chart coverage does not exist simply because it is not indicated in the British Admiralty chart catalogue.

The accuracy and reliability of a nautical chart depends on the quality of hydrographic and topographic surveys and other relevant information, noting that charts are made up from diverse sources of supplied information of potentially widely differing quality.

All larger scale Australian ENC and paper charts carry Zone of Confidence (ZOC) information, also referred to in ENC as Categories of Zones of Confidence (CATZOC). In ENC this is a selectable layer displayed across the full screen, while the same information is contained in a small diagram on paper charts. This information enables mariners to assess the limitation of the hydrographic data from which the chart was compiled and the resulting degree of risk for navigation. A more detailed explanation can be found in the *Mariners Handbook for Australian Waters* (AHP 20)—available from www.hydro.gov.au.

The Australian Hydrographic Office publishes the *Mariners Handbook for Australian Waters* (formerly *Seafarers Handbook for Australian Waters*) (AHP 20). Information provided in AHP 20 assists ships to operate safely and to comply with requirements of international conventions—for example SOLAS and MARPOL, as well as Australian regulations.

Many of the AUS series nautical charts make reference to AHP 20 as the key publication to refer to for further information. Such information includes, but is not limited to—compulsory pilotage areas, port call requirements, mandatory ship reporting requirements, limits of particularly sensitive sea areas and designated shipping areas in the Great Barrier Reef Marine Park, and chart accuracy guidance.

In addition to the carriage of lists of lights, sailing directions, notices to mariners, tide tables and all other nautical publications necessary for the intended voyage, the carriage of AHP 20 is necessary for safe navigation in Australian waters.

Port State Control inspections

AMSA's Port State Control inspectors will routinely check for:

- documented voyage plans and adherence to them
- availability and appropriate use of official nautical charts, updated and corrected to the latest available notices to mariners
- use of largest scale charts available for coastal navigation
- carriage and use of up to date nautical publications, necessary for the intended voyage, including AHP 20.

Further information

Marine Orders <http://www.amsa.gov.au/marine-orders>

Australian charts and the *Mariners Handbook for Australian Waters* (AHP 20)
www.hydro.gov.au

IMO Resolution A.893 (21) Guidelines for voyage planning

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