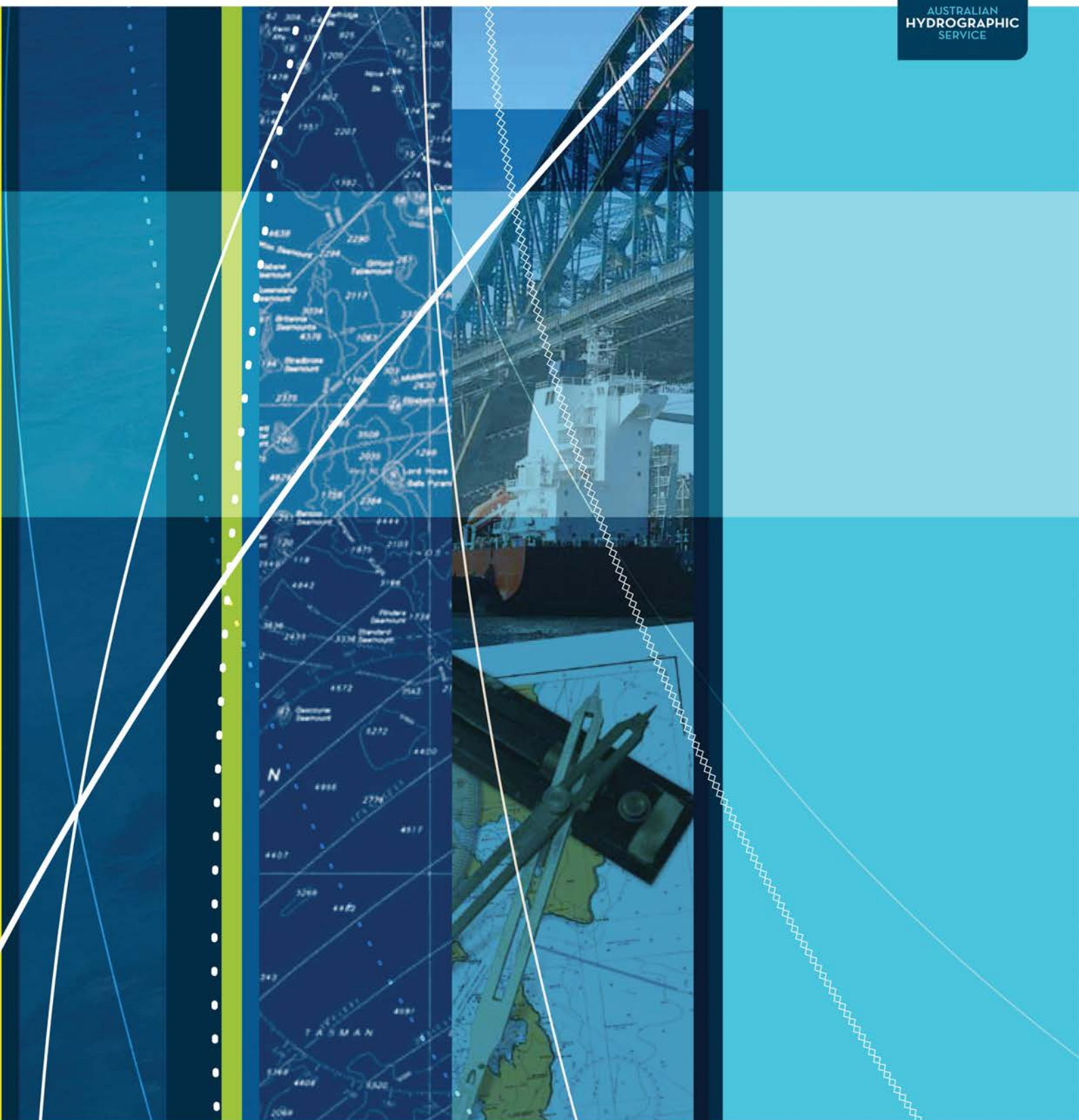




Australian Government  
Department of Defence



AUSTRALIAN  
HYDROGRAPHIC  
SERVICE



# AUSTRALIAN CHART & PUBLICATION MAINTENANCE HANDBOOK 4th Edition

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OFFICIAL NAUTICAL CHARTS AND PUBLICATIONS  
[hydro.gov.au](http://hydro.gov.au)

AHP24



Australian Chart & Publication Maintenance Handbook Edition 4.00

Compiled by Australian Hydrographic Service

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## Preface

The Australian Chart and Publication Maintenance Handbook provides information to assist mariners to maintain navigational chart outfits (both paper and electronic) and nautical publications. This book will also assist the mariner to maintain appropriate records suitable for an external inspection.

National and international regulations governing Safety Of Life At Sea (SOLAS) and other commercial vessels, all require up to date nautical charts and publications. These regulations all recognise that, unlike a topographic map, a mariner can only see a small fraction of the features and dangers that lie ahead, as the remainder are submerged. Therefore, mariners need to place a much higher degree of faith in their chart than a navigator on land. This faith must not be misplaced.

Enquiries or suggestions regarding this publication should be directed to [datacentre@hydro.gov.au](mailto:datacentre@hydro.gov.au)



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## CHAPTER ONE GENERAL INFORMATION

1.1	Why do Nautical Charts and Publications Need to be Updated?.....	<a href="#">6</a>
1.2	Australian Hydrographic Service.....	<a href="#">6</a>
1.3	Official Nautical Charts and Publications.....	<a href="#">7</a>
1.4	What Charts and Publications Need to be Carried.....	<a href="#">7</a>
1.5	Australian Charting Area and Chart Series.....	<a href="#">10</a>
1.6	Reporting Discrepancies on Nautical Charts and Publications .....	<a href="#">12</a>

## CHAPTER TWO ELECTRONIC CHARTS

2.1	Introduction.....	<a href="#">14</a>
2.2	Chart Display and Information Systems.....	<a href="#">14</a>
2.3	Electronic Navigational Charts (ENC).....	<a href="#">16</a>
2.4	The AusENC Service.....	<a href="#">21</a>
2.5	Training.....	<a href="#">27</a>
2.6	Temporary and Preliminary Notices in ENC.....	<a href="#">27</a>

## CHAPTER THREE NOTICES TO MARINERS

3.1	Introduction.....	<a href="#">28</a>
3.2	Annual Notices to Mariners.....	<a href="#">29</a>
3.3	Fortnightly Notices to Mariners.....	<a href="#">29</a>
3.4	Accessing Notices via the Australian Chart Index (online).....	<a href="#">39</a>
3.5	eNotices.....	<a href="#">39</a>
3.6	Admiralty Notices to Mariners.....	<a href="#">39</a>

## CHAPTER FOUR PAPER NAUTICAL CHARTS

4.1	Introduction.....	<a href="#">40</a>
4.2	Updating Paper Nautical Charts.....	<a href="#">41</a>
4.3	Measurement Conversion Table.....	<a href="#">46</a>
4.4	Applying Corrections to Paper Nautical Charts.....	<a href="#">46</a>
4.5	Chart Correction Examples.....	<a href="#">50</a>
4.6	Symbols Used on Paper Charts.....	<a href="#">54</a>



## CHAPTER FIVE NAUTICAL PUBLICATIONS

5.1	Introduction.....	<a href="#">58</a>
5.2	Carriage Requirements .....	<a href="#">58</a>
5.3	Australian Nautical Publications.....	<a href="#">60</a>
5.4	Updating Australian Nautical Publications.....	<a href="#">62</a>
5.5	Admiralty Nautical Paper Publications.....	<a href="#">67</a>
5.6	Admiralty Digital Publications.....	<a href="#">67</a>

## CHAPTER SIX LOG SHEETS

6.1	Introduction .....	<a href="#">68</a>
6.2	Downloading Log Sheets.....	<a href="#">68</a>

## Chapter 1) GENERAL INFORMATION

### 1.1 Why do Nautical Charts and Publications Need to be Updated?

1. It is important for nautical charts (electronic and paper) and publications to be the latest published edition and to be kept up to date for Notices to Mariners (NtM), and equivalent Electronic Nautical Chart (ENC). Uncorrected charts and publications do not contain the latest navigational safety critical information.
2. Nautical charts and publications are 'living' documents. Information affecting the safety of navigation for mariners is being received constantly. Changes can include information such as an individual report of a newly discovered danger, a buoy or beacon that has been moved or removed, while other times the change can be as large as an entire new survey. In all cases, national hydrographic authorities have an obligation to publish details of new and altered information affecting the potential safety of mariners. Equally, certain mariners have a legal obligation to apply these updates to their charts and publications, or to ensure the latest electronic update is loaded into their system. Many marine accident investigations show that up to date charts and publications are essential for all ocean going vessels, particularly when operating in coastal waters and in the vicinity of ports.
3. Australian NtM are published by the [Australian Hydrographic Service](#) (see Ch.3).

### 1.2 Australian Hydrographic Service

1. The Australian Hydrographic Service (AHS) is part of the Department of Defence. It is responsible for providing Australia's national charting service under the terms of the United Nations (UN) Safety of Life at Sea (SOLAS) Convention and the [Navigation Act 2012 \(Cth\)](#). This role requires provision of nautical charting and associated services in support of maritime safety, the coordination and determination of policy and standards which cover both hydrographic surveying and charting, as well contributing to the coordination, exchange and standards related to geospatial data in general. The AHS is also responsible for providing direct support to the Australian Defence Force (ADF) for the provision of hydrographic, charting, oceanographic and meteorology services. The AHS consists of the Australian Hydrographic Office, Oceanographic and Meteorological services, and survey ships and aircraft of the Royal Australian Navy (RAN):
  - National products and services include:
    - publishing and maintaining the national chart series (over 800 Electronic Navigation Charts and 400 paper Nautical Charts)
    - publishing the Australian National Tide Tables (ANTT) and other nautical publications supporting safety of navigation
    - promulgation of changes and additions to charts and publications, including direct update services for ENC and NtM
    - compilation and maintenance of the Australian hydrographic database for inclusion in the national bathymetric datasets and for other purposes
2. The AHS is located in Wollongong, New South Wales. All correspondence should be directed to:

Postal address:	8 Station Street, Wollongong NSW 2500
Telephone:	+61 2 4223 6500
Fax:	+61 2 4223 6599
Email addresses:	
Charting and publication suggestions, Notices to Mariners - enquiries, reports and feedback:	<a href="mailto:datacentre@hydro.gov.au">datacentre@hydro.gov.au</a>
Products - wholesale orders and enquiries:	<a href="mailto:hydro.sales@defence.gov.au">hydro.sales@defence.gov.au</a>
Website:	<a href="http://www.hydro.gov.au">www.hydro.gov.au</a>

## 1.3 Official Nautical Charts and Publications

1. Official nautical charts and publications are those issued officially by, or on the authority of, a Government, authorised hydrographic office or other relevant institution, and designed to meet the requirements of marine navigation. In Australia, the relevant hydrographic authority is the Australian Hydrographic Service (AHS) (see [Navigation Act 2012](#) (Cth) Chapter 6 Part 6 Division 5). Official nautical products published by the AHS include:
  - Electronic Navigational Charts (ENC)
  - paper nautical charts
  - Notices to Mariners (NtM)
  - Australian National Tide Tables and AusTides
  - Seafarers Handbook for Australian Waters
  - Australian Chart and Publications Maintenance Handbook

### 1.3.1 Reproductions and Copies of Paper Charts

1. The United Kingdom Hydrographic Office (UKHO) reproduces selected Australian nautical charts under licence and these are authorised for use by commercial vessels of all sizes. They still carry an AUS chart number. Reproduced charts are listed in the British Admiralty (BA) Chart Catalogue and can be identified by the publication details in the lower margin of each chart. However Australian charts which are not reproduced by the UKHO are not listed in their catalogue. Masters should therefore be aware that a more appropriate Australian nautical chart at a larger scale may be available than is listed in the BA Chart Catalogue, or shown as an adjoining chart on the BA reproduction.
2. Some State marine and maritime safety organisations also produce boating maps, though these are suitable for recreational use only. A small number of commercial organisations sell reduced scale copies of old US copies of Australian charts. However, as US authorities ceased copying Australian charts in the early 2000's, these reduced scale copies of copies are now very out of date and should not be relied upon. They are not authorised for use by commercial vessels of any size.

## 1.4 What Charts and Publications Need to be Carried

1. Legal obligations are placed on certain mariners to carry official up to date nautical charts and publications. For other mariners it is recommended good practice.

### 1.4.1 International Convention for the Safety of Life at Sea (SOLAS)

1. [The International Convention for the Safety of Life at Sea \(SOLAS\)](#) - Chapter V requires that vessels (other than fishing vessels) greater than 500 tonnes, or vessels greater than 150 tonnes when engaged on international voyages, carry up to date official charts, sailing directions, list of lights, notices to mariners, tide tables and all other nautical publications necessary for the intended voyage. The International Maritime Organization (IMO) also requires that the Master or officer in charge of navigation use the largest (most detailed) scale charts for the intended route. These charts are to be corrected with the latest available information.
2. SOLAS Chapter V References:
  - Regulation 2 - Definitions
  - Regulation 9 - Hydrographic Services
  - Regulation 19 - Shipborne Navigational Equipment and Systems (extract)
  - Regulation 27 - Nautical Charts and Nautical Publications (extract)

### 1.4.2 Navigation Act 2012 (Cth)

1. The [Navigation Act 2012 \(Cth\)](#) provides the legislative basis for many of Australia's responsibilities for maritime matters including ship safety, seafarers, marine accidents, aids to navigation and shipboard aspects of the marine environment. The Act also gives effect to relevant international conventions.
2. Reference to charts and publications are:
  - Chapter 6, Part 6, Division 5, sections 223-225 - The Australian Hydrographic Services and offences and civil penalties relating to taking a vessel to sea without charts.

### 1.4.3 Australian Maritime Safety Authority Marine Orders and Notices

1. The following Marine Orders / Notices are issued under the [Navigation Act 2012 \(Cth\)](#). Mariners are to refer to:
  - [Marine Order 21](#) - Safety of Navigation and Emergency Procedures 2016
  - [Marine Notice 2017/07](#) - Guidance on ECDIS for ships calling at Australian ports
  - [Marine Notice 2017/06](#) - Official Nautical Charts
  - [Marine Notice 17/2014](#) - Sound navigational practices (provides a detailed description of the charts and publications required to be carried within Australian Waters)

### 1.4.4 Other commercial vessels operating in Australia

1. Commercial vessels operating solely within Australian waters or only between Australian ports are now bound by the [Marine Safety \(Domestic Commercial Vessel\) National Law Act 2012 \(Cth\)](#). This commenced operation on 1 July 2013.
2. It replaces eight existing Federal, State and Territory laws with a single law for the safety of all commercial vessels and their crew in Australian waters. It sets the National Standard for Commercial Vessels (NSCV) as the national standard for domestic commercial vessel construction, operation and seafarer qualifications. It also establishes Australian Maritime Safety Authority (AMSA) as the single National Regulator for commercial vessel safety.
3. New vessels are required to comply with the NSCV, while existing vessels are required to comply with a mixture of the standards and the older Uniform Shipping Laws (USL). Specific details may be found at the following website.

Website:	<a href="http://www.amsa.gov.au/domestic/">www.amsa.gov.au/domestic/</a>
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4. Specific requirements for carriage of nautical charts and publications are contained within Parts B and C (Section 7) of the NSCV.
5. State or Territory authorities can be contacted regarding areas nominated as smooth and partially smooth waters within their respective jurisdictions.

Carriage Requirements - NSCV Part C, Section 7C						
Operational Area and vessel length (Note 1)	All areas vessels 35m and over	Area A vessels 24m and over	Area A Vessels under 24m	Area B vessels under 35m	Area C vessels under 35m	Areas D & E vessels under 35m
ECDIS or ECS (using official ENC or RNC) or Paper Nautical Charts (Note 2, 3)	Comply with AMSA Marine Orders Part 21	Comply with AMSA Marine Orders Part 21	ECDIS or ECS or paper nautical charts required iaw NSCV	ECDIS or ECS or paper nautical charts required iaw NSCV	ECDIS or ECS or paper nautical charts required iaw NSCV	ECDIS or ECS or paper nautical charts required for vessels 12m and over (Note 4)
Nautical Publications	Comply with AMSA Marine Orders Part 21	Comply with AMSA Marine Orders Part 21	NPs required iaw NSCV	NPs required iaw NSCV	NPs required iaw NSCV	NPs required iaw NSCV

## Notes:

1. See Operational Areas Table for definitions of these areas.
2. Nautical charts and publications, including paper nautical charts, manuscript publications, digital publications, official ENC, shall be those originated by a relevant government authority or an authorized national hydrographic office (Annex B to NSCV Part C, Section 7C).
3. Using the ECDIS or ECS options includes the requirement for backup (Table 2 and Annex C to NSCV Part C, Section 7C).
4. It is good operational practice to carry appropriate paper nautical charts on vessels less than 12 metres in length operating outside port or harbour limits (Table 2 of NSCV Part C, Section 7C).

Operational Areas - NSCV Part B	
Area A	unlimited domestic operations, including operations greater than 200 nautical miles to seaward of the coast.
Area B	operations within a limit of 200 nautical miles to seaward of the coast; or within such lesser limits as may be specified.
Area C	operations within: a) 30 nautical miles from the seaward limit of a safe haven, including designated smooth or partially smooth waters (i.e. sheltered waters), or within such lesser limits as may be specified; or b) specified waters designated by the Authority as "restricted offshore".
Area D	operations within specified geographical limits in waters designated by the Authority as partially smooth waters.
Area E	operations within specified geographical limits in waters designated by the Authority as smooth waters (see also Clause 1.8 - definition of smooth waters).

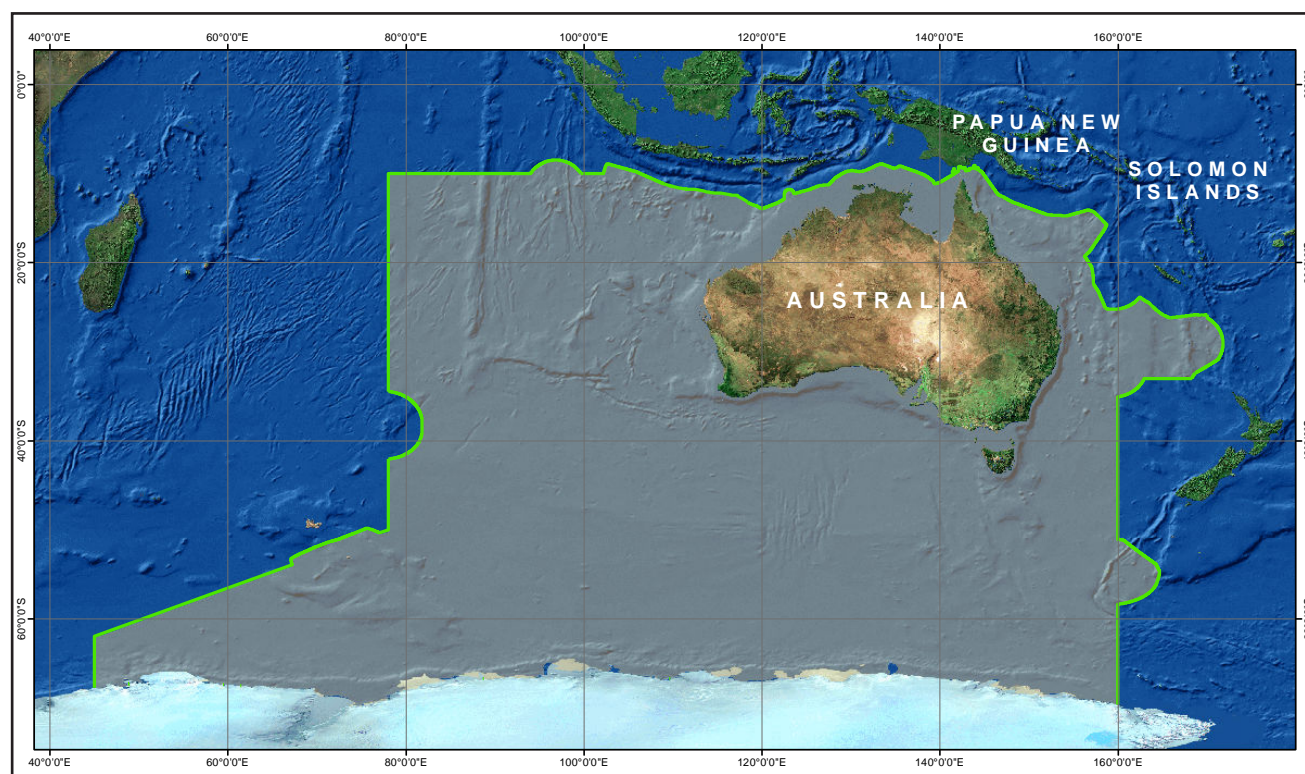


### 1.4.5 Recreational vessels

1. In New South Wales, Northern Territory and South Australia it is a requirement to carry an official chart when going offshore or beyond smooth waters. In all other states it is recommended as good practice.

## 1.5 Australian Charting Area and Chart Series

Australian Charting Area



1. The AHS currently publishes approximately 450 official paper nautical charts and over 850 official ENC. Coverage includes Australia, Papua New Guinea, the Australian Antarctic Territory and the Solomon Islands. The AHS distributes its ENC nationally under the 'AusENC' service.

### 1.5.1 Australian Chart Index

1. The Australian Chart Index (ACI) provides an online catalogue of Australian paper nautical charts, Australian ENC cells and AusENC packs. The ACI can be found on the AHS website:

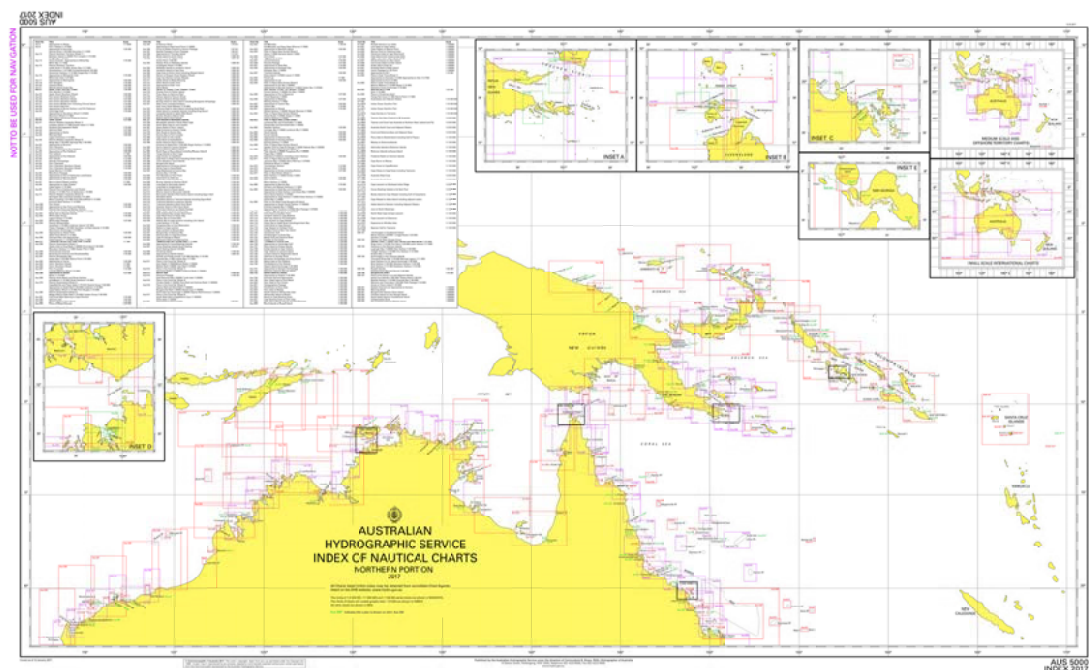
Website:	<a href="http://www.hydro.gov.au/prodserv/paper/charts.htm">www.hydro.gov.au/prodserv/paper/charts.htm</a>
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2. The ACI is available in two formats:
  - Standard ACI - provides paper Australian paper nautical charts and AusENC cell lists and an AusENC pack index in a text based format. Chart and cell lists provide a fast reference tool when the ENC or chart number is known. The AusENC pack index lists the details of the cells contained within each pack. The Standard ACI provides links to all NtMs in force
  - GoogleEarth™ ACI - This version can be downloaded as a KMZ file that can be opened in GoogleEarth™ to view our Paper Chart and AusENC coverage
3. Both ACI formats enable mariners to find information about each chart including current edition date and all Permanent, Temporary and Preliminary NtM applicable to the current edition.

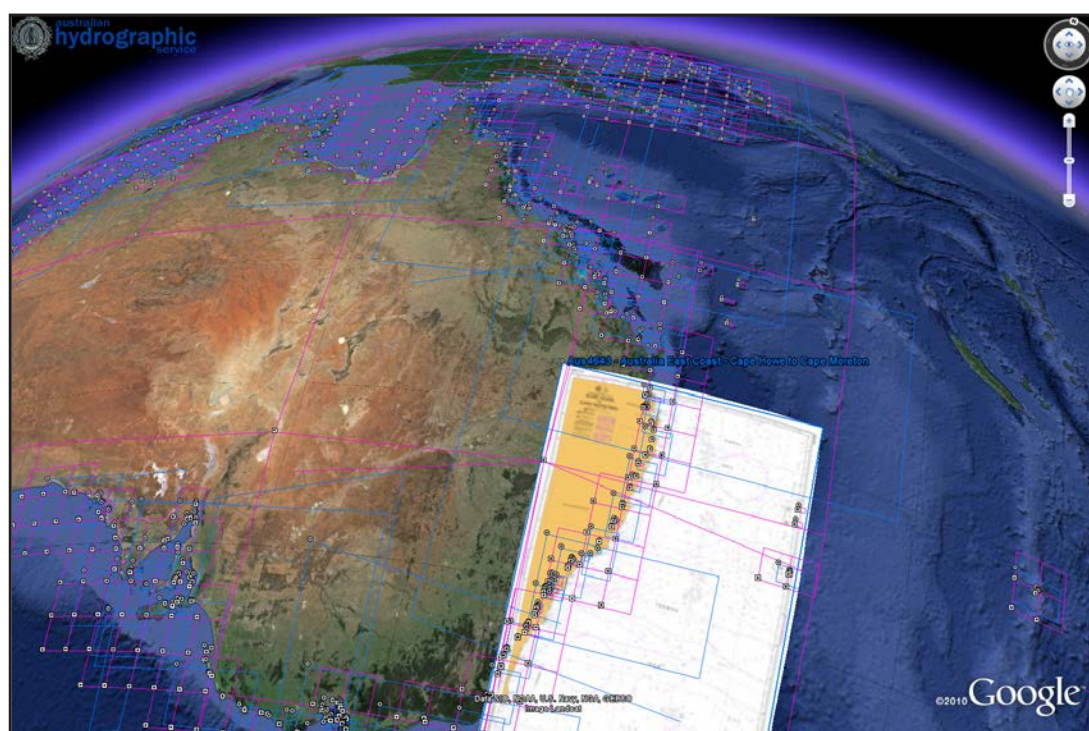
4. The index of Australian and International paper charts are also contained in two paper sheets, published annually, as follows:

- Aus 5000 - Australian Index of Nautical Charts - Northern Portion
- Aus 5001 - Australian Index of Nautical Charts - Southern Portion

Aus 5000 - Australian Index of Nautical Charts - Northern Portion



Australian Chart Index on AHS Website





### 1.5.2 Australian nautical publications list

1. A list of Australian nautical publications can be found in Chapter 5. Further information can also be found on the AHS website, under publications.

Website:	<a href="http://www.hydro.gov.au/prodserv/publications/publications.htm">www.hydro.gov.au/prodserv/publications/publications.htm</a>
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### 1.5.3 Distribution agents

1. A list of accredited distributors for AHS nautical charts and publications can be found on the AHS website.

Website:	<a href="http://www.hydro.gov.au/webapps/jsp/agents/agents-list.jsp">www.hydro.gov.au/webapps/jsp/agents/agents-list.jsp</a>
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## 1.6 Reporting Discrepancies on Nautical Charts and Publications

1. Mariners are encouraged to report on any changes, discrepancies or omissions from charts and publications. Reporting may include:
  - changes to lights, buoys and beacons
  - new and newly discovered obstructions
  - safe routes through poorly charted waters and safe anchorages not charted
  - any errors or omissions in navigation products
2. Reports are acceptable in any style or form that best suits the writer. Rough but legible handwritten reports and emails are quite acceptable. Email attachment can include images of observed objects, screenshot of the navigation display or similar.
3. When submitting a report it may be worth noting:
  - Reports which are incomplete or lacking detail should still be submitted - some information is far better than no information, and may contribute to preventing a significant accident
  - Photographs, diagrams, screen captures or marked copies of charts and publications are a most effective means of providing detailed information quickly and simply, while a photograph of a marked-up chart or navigation screen may also be a convenient way of passing information. All still need to be supplemented by location and sender details. (Any marked-up original paper charts used for this purpose will be replaced upon request)
  - If submitting an echo sounder trace or quoting an observed depth measured by an echo sounder (or some other method), advice should include whether the echo sounder on the vessel is set to read from the keel or waterline. If reading from the keel, the vessel's draft is helpful in calculating the true depth. Time of observation is useful in adjusting depth for tide
  - It is possible that in deeper water an echo sounder can go 'around-the-clock' and show a shallow false return, or receive strong returns from fish or abnormal water layers. If possible, depths should continue to be recorded until general agreement with surrounding charted depths is restored
  - Reports of uncharted shoal depths, as well as navigation aids out of order should, at the mariner's discretion, also be made by radio to the nearest coast radio station or the relevant port authority. The draft of modern tankers and bulk cargo vessels is such that any observed shoal depths (in general, depths of 30 metres or less) may be significant, particularly as the observed depth may be at the edge of a much shallower feature

4. Outside the Australian Charting Area information regarding improvements to nautical charting for areas should also be rendered to the AHS for forwarding to appropriate national hydrographic authorities.
5. Information of particular use for hydrographic reports of dangers and changes includes:

Sender details	
Name of Ship / vessel:	
Name of Sender:	
Sender's address (email preferred):	
Sender's telephone number:	
Date:	
Report Details	
Subject / feature:	
General locality:	
Position – Latitude, Longitude, Datum (if fixing directly by GPS)	
Position – description (if fixing by other means)	
ENC, Paper Chart, or Publication affected:	
Date of latest correction / update ap- plied to affected ENC, Paper Chart or Publication (if known):	
Observation details	

6. The simplest method of reporting a discrepancy may be by a [Hydrographic Note](http://www.hydro.gov.au/feedback/feedback-hydronote.htm) which can be completed online or downloaded as a PDF.

Website:	<a href="http://www.hydro.gov.au/feedback/feedback-hydronote.htm">www.hydro.gov.au/feedback/feedback-hydronote.htm</a>
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7. Reports can be forwarded to the AHS via:

By post to:	Manager Nautical Assessment and Maintenance Australian Hydrographic Service Locked Bag 8801 Wollongong NSW 2500
Telephone:	+61 2 4223 6500
Fax:	+61 2 4223 6599
Online at:	<a href="http://www.hydro.gov.au">www.hydro.gov.au</a>
email:	<a href="mailto:datacentre@hydro.gov.au">datacentre@hydro.gov.au</a>

## Chapter 2) ELECTRONIC CHARTS AND DISPLAY SYSTEMS

### 2.1 Introduction

1. More than simply a chart image displayed on a computer, an official electronic chart displayed on the appropriate equipment is a real time navigation aid. It enables viewing systems connected to a satellite position fixing system (e.g. GPS) to continuously display a vessel's real time position in relation to land, charted objects, aids to navigation and unseen hazards.
2. Official electronic charts are those issued by, or on the authority of, a Government, authorised Hydrographic Office or other relevant government institution. In Australia the relevant hydrographic authority is the Australian Hydrographic Service (AHS).
3. The AHS publishes official ENC covering Australian, Papua New Guinea and Australian Antarctic Territory waters under the banner of AU ENC. The AHS publishes ENC covering Solomon Islands waters under the banner of SB ENC. AU and SB ENC are available in the following services:

Product	Service	Availability
AU ENC SB ENC	AusENC	AUS ENC Distributors (see AHS website)
AU ENC SB ENC	International Centre for ENC via various value added Re-sellers (AU and SB ENC may be grouped in with ENC from other nations)	see <a href="#">IC-ENC</a> website. Resellers include: Admiralty Vector Chart Service Chart Co Chartworld Datema Jeppessen Marine Maris Navtor Primar

4. For electronic chart and system carriage requirements see chapter 1.4.

### 2.2 Chart Display and Information Systems

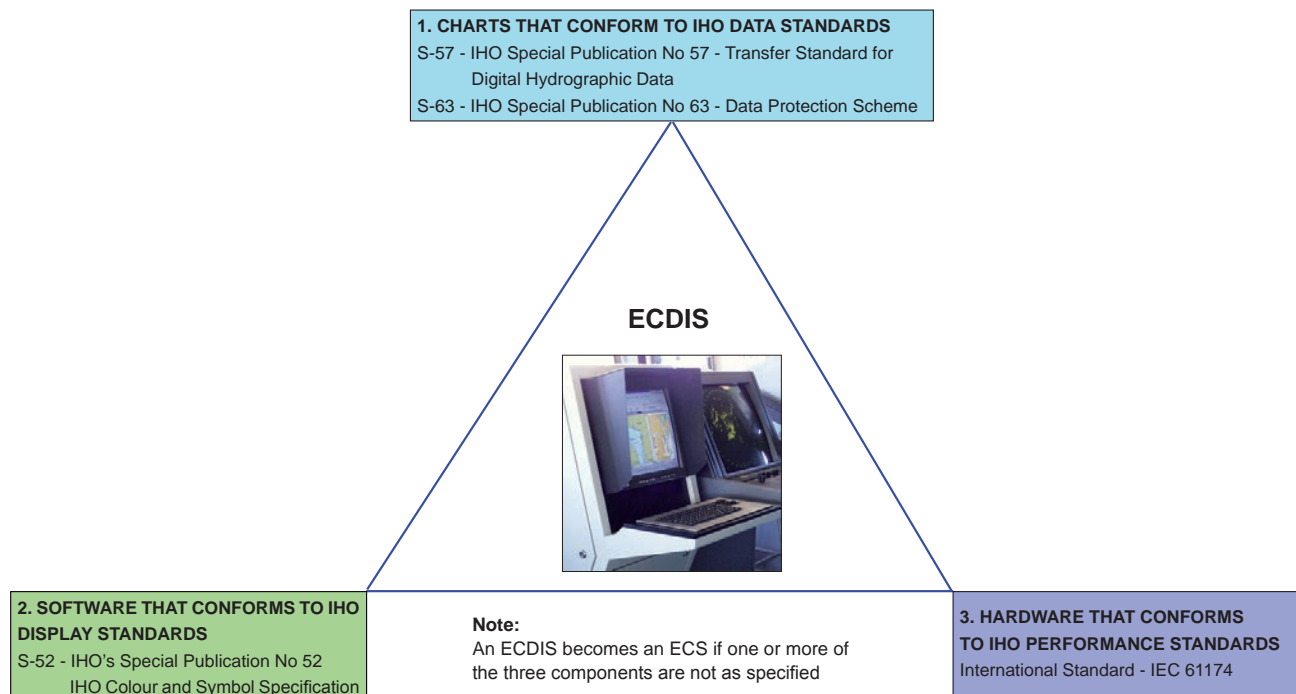
1. There are two major categories of Chart Display and Information Systems. These are:
  - Electronic Chart Display and Information System (ECDIS) - meets International Maritime Organization (IMO) / the International Convention for the Safety of Life at Sea (SOLAS) and National Standard for Commercial Vessels (NSCV) requirements, subject to certain conditions being met, if used with up to date official electronic charts (see Chapter 1).
  - Electronic Charting System (ECS) - does not meet IMO / SOLAS requirements but may meet NSCV requirements depending on vessel size and area of operation, if used with up to date official electronic charts.



### 2.2.1 Electronic Chart Display and Information System (ECDIS)

1. An ECDIS comprises type-approved hardware and software, using authorised chart data. It provides a powerful decision making tool on the bridge of a ship which combines satellite position fixing and a sophisticated electronic database containing chart and other navigation information.
2. Most ECDIS convert each ENC cell from encrypted S-57 format into an internal machine language format called System ENC or SENC which is optimised for chart image creating routines. Each ECDIS software manufacturer has its own SENC format.
3. Features of an ECDIS include:
  - ECDIS will respond to the safety depth contour based on a vessel's actual draft (ENC only)
  - dangers or hazards can be identified automatically and warnings and alarms raised (ENC only)
  - the level of chart detail can be adjusted according to the circumstances (ENC only)
  - alternative colour schemes can be selected for use by day or by night
  - provision of alerts and prompts for planned course alterations
  - automatic scrolling of chart area and automatic loading of necessary charts
  - chart updates can be viewed by examining any location on a chart that has been updated

#### Components of an ECDIS



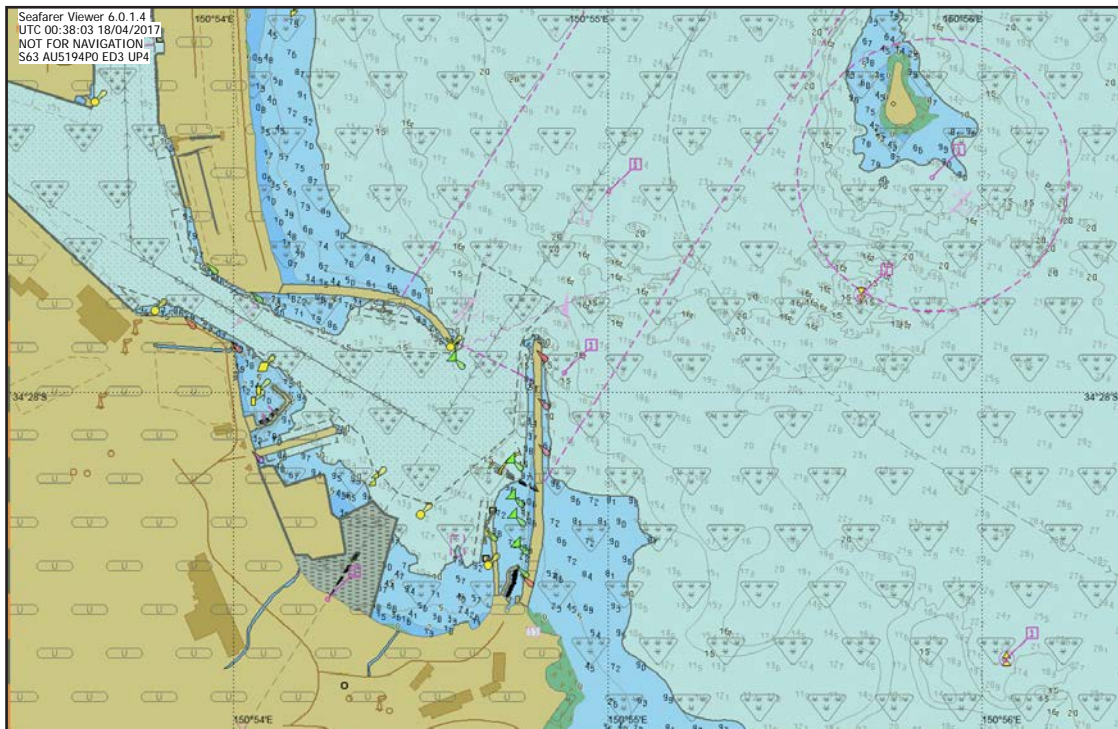
### 2.2.2 Electronic Chart Systems (ECS)

1. All chart display systems, other than ECDIS, are known simply as ECS. ECS provide automatic plotting of a vessel's position on an electronic chart. ECS equipment range from a hand held GPS to a more sophisticated viewing system that provide many of the functions found in ECDIS such as route planning, route monitoring and the raising of alarms and warnings.
2. The charts used in ECS come in a variety of forms. Some ECS use Raster Nautical Charts (RNC) while others rely on commercially produced charts ranging from very simple line drawings to images that closely resemble paper charts or ENC.
3. There are no agreed standards for ECS or the versions of the charts that they use. Because of this, ECS are NOT recognised as an alternative to paper charts for SOLAS class vessels (SOLAS Chapter V). **However, ECS may meet carriage requirements for other commercial vessels under the National Standard for Commercial Vessels when used in conjunction with an official ENC.**

## 2.3 Electronic Navigational Charts (ENC)

1. An ENC is an official vector electronic chart organised in cells, produced in International Hydrographic Organization (IHO) S-57 Edition 3.1 format, and protected using the IHO S-63 data protection scheme. It is authorised for navigational use in International Maritime Organization (IMO) compliant ECDIS and can also be used in a compatible ECS.
2. The chart information in an ENC is not held as a single image or "picture" of a chart, but as individual items (objects) in a database. Each chart feature and its associated information is recorded separately in the database. This allows all the chart data to be analysed and reassessed continuously by the ECDIS in relation to a vessel's current (and intended) position, draft and clearance height.
3. ENC have the following attributes and functions when displayed in EDCIS:
  - warnings and alarms are raised by the ECDIS when dangers or hazards will affect a ship
  - chart features arranged in information layers can be turned on or off
  - zooming without distortion
  - seamless viewing from one ENC cell to the next, without interruption
  - the ENC and paper chart use the same survey data source, particularly in ports and constrained waterways
  - the ENC may have higher levels of content than the corresponding paper chart
  - positions on ENC are referred to the World Geodetic System 1984 Datum (WGS84) which are directly compatible with Global Navigation Satellite System positions (GNSS) e.g. GPS
  - regularly updated (See section 2.4.3)
  - each feature is given a Scale Minimum (SCAMIN) value - the value of an object determines the smallest display scale below which the object is no longer visible and reduces clutter displayed to the ECDIS user. The scale at which you zoom in to view an ENC will determine what objects/features will appear on the screen.

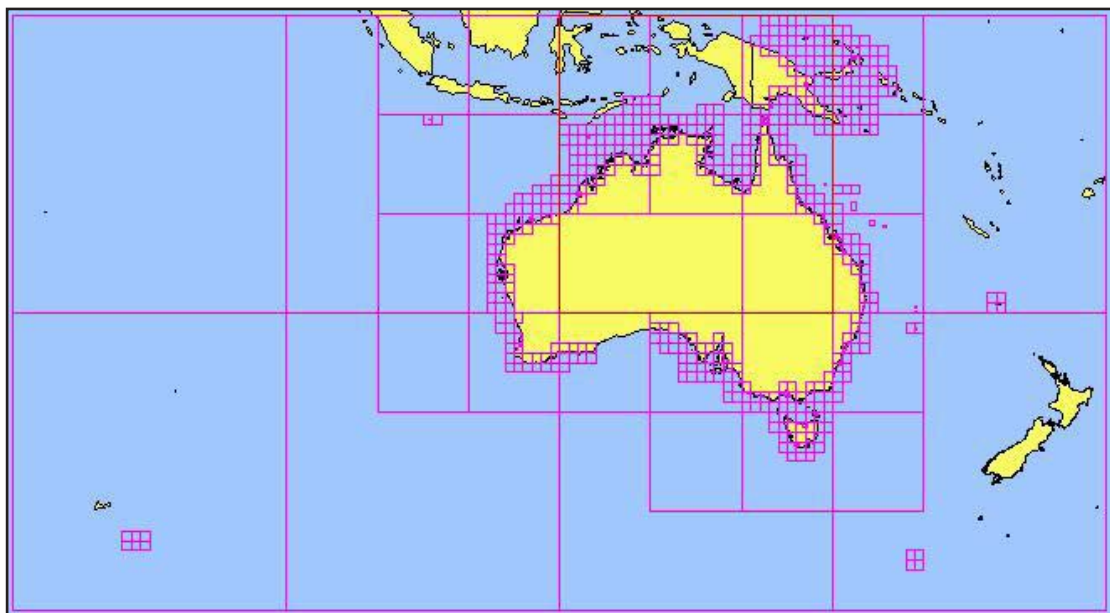
Example of an ENC



### 2.3.1 Australian ENC coverage

1. The AHS provides ENC coverage for all areas covered by paper charts. However, ENC coverage is arranged in a regular geographic grid for each scale band. As they do not adhere to the limits of individual paper charts they follow a different naming convention.

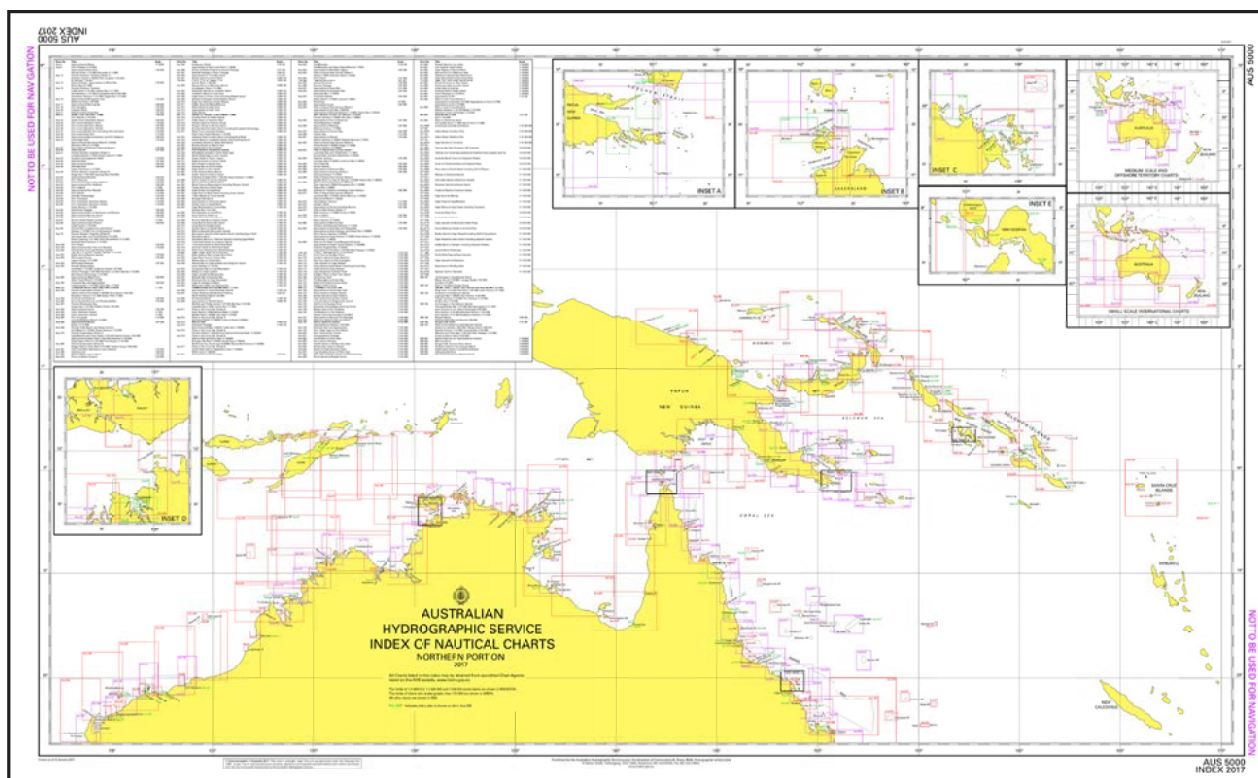
ENC Coverage - Australian Chart Index



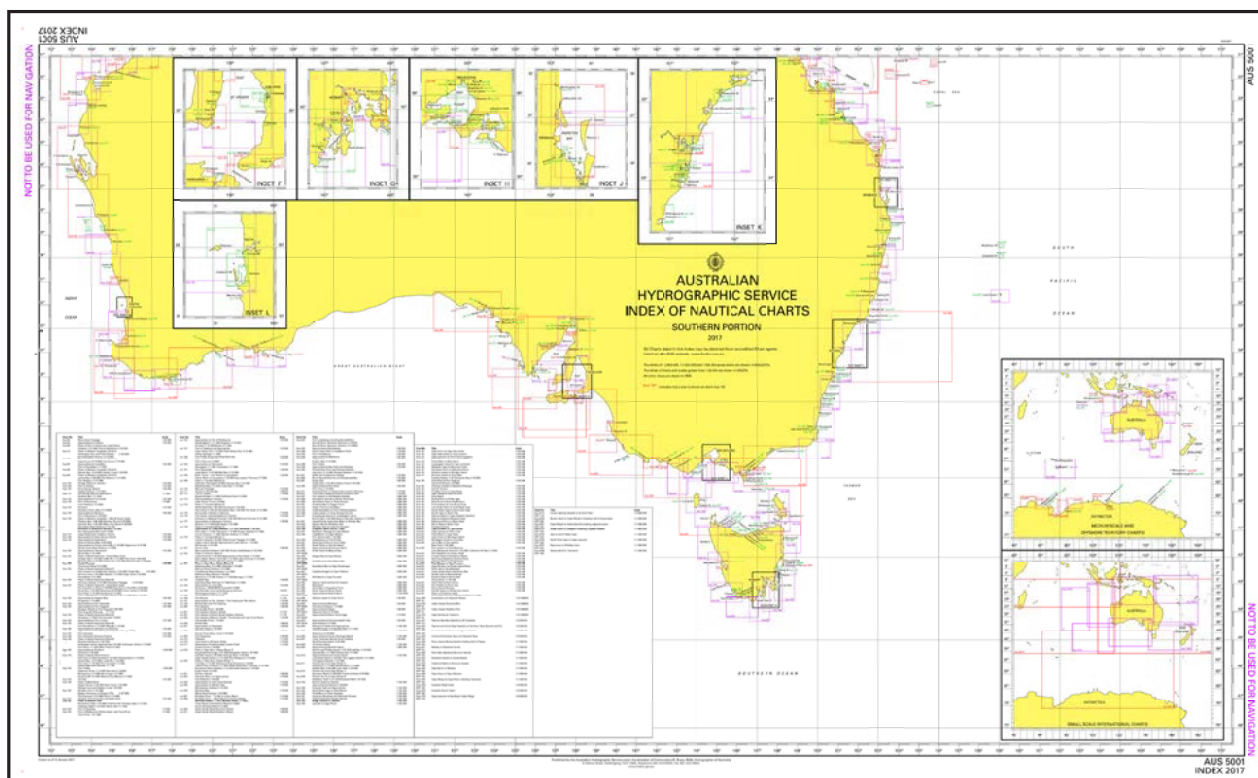
Website link for ENC List: [www.hydro.gov.au/webapps/jsp/charts/enclist.jsp](http://www.hydro.gov.au/webapps/jsp/charts/enclist.jsp)



AUS 5000 - Australian Index of Nautical Charts - Northern Portion



AUS 5001 - Australian Index of Nautical Charts - Southern Portion



Website link for Paper Chart List:

[www.hydro.gov.au/webapps/jsp/charts/chartlist.jsp](http://www.hydro.gov.au/webapps/jsp/charts/chartlist.jsp)

### 2.3.2 Australian ENC naming convention

- All ENC published by Australia adhere to an eight character file naming convention controlled by the IHO. In this structure the first two characters denote the authorising nation, the next number denotes the navigation purpose. The remaining five form a unique identifier which is based primarily on geographic position.

Authorising Nation Code (always 2 letters)	Navigation Purpose Code (single number range 1 to 5)	Unique File Number (5 characters)
AU (or SB)	3	30120
These two letters indicate the official Authorising Nations Code. AU is abbreviation for Australia. SB is an abbreviation for Solomon Islands.	ENC are compiled for a variety of navigational purposes, each governing the range of detail included. Within these scale bands it is also possible to zoom in and out for more or less detail (see table below).	This part of the file name is at the discretion of each ENC producing nation and identifies the geographic area covered. AU and SB ENC are either: <ul style="list-style-type: none"> <li>based on square grids of latitude and longitude - Navigation Purpose Codes 1 to 3 and most 4s, or</li> <li>based on one or more Australian paper charts (Aus charts) - Navigation Purpose Code 5 and some code 4s (see explanation below).</li> </ul>

#### Navigation Purpose Code

- Navigation Purpose Codes used by the AHS are:

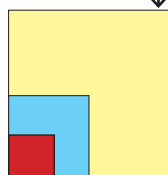
Navigation Purpose Code	Usage
1	Overview - 30° x 30° - ocean coverage for international passage planning
2	General - 10° x 10° - sea area coverage for offshore navigation
3	Coastal - 1° x 1° - continental shelf coverage for coastal navigation
4	Approach - 1° x 1° - near shore and port approach coverage for inshore navigation (plus a few chart-based ENC in the Coral Sea)
5	Harbour - for navigation from the pilot boarding ground to the berth, and in bays and inlets
6	Bathymetric ENC - high resolution bathymetry of dredged channels and other selected areas within ports.

#### Unique File Number - Navigation Purpose 1 to 4 based on square grids of latitude and longitude

- For AHS published ENC, Navigation Purpose 1 to 4 ENC are referred to as cell based ENC.

Authorising Nation Code (always 2 letters)	Navigation Purpose Code (number in range 1 to 5)	Unique File Number	
		Latitude	Longitude
AU (or SB)	3	30	120

The Navigation Purpose Code indicates both the intended purpose and the size of the ENC (as shown in the table above).



The unique file number consists of 5 characters, the first two the latitude value and the last 3 are the longitude value and together represent the south-west corner of the ENC. Because Australian, Papua New Guinea and Solomon Islands waters are located south of the equator and east of Greenwich, all latitudes are southern latitudes, and all longitudes are eastern longitudes.  
ENC with different Navigation Purpose Codes can overlap but AHS published ENC Navigation Purpose 3 and 4 cells don't overlap each other.  
ENC with the same Navigation Purpose Codes cannot overlap.

AU130120	An Australian navigation purpose code '1' (30° x 30°) ENC whose south west corner is 30 S and 120 E, with coverage north and east from 30 S to 0 S and 120 E to 150 E.
AU230120	An Australian navigation purpose code '2' (10° x 10°) ENC whose south west corner is 30 S and 120 E, with coverage north and east from 30 S to 20 S and 120 E to 130 E.
AU330120	An Australian navigation purpose code '3' (1° x 1°) ENC whose south west corner is 30 S and 120 E, with coverage north and east from 30 S to 29 S and from 120 E to 121 E.



AusENC Cell list on the website

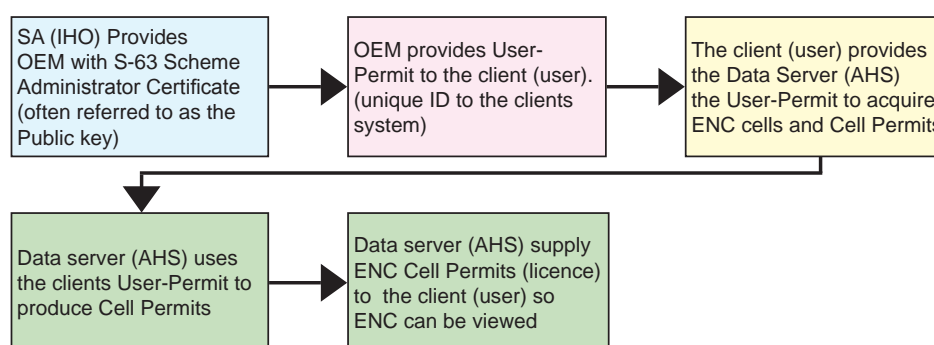
as at: 12-Jul-2013, NIM 14/2013

AusENC Cell No.	Title	Scale	Edition No	Update No	Details
AU130060	Australia - Mid Indian Ocean Basin	1:3500000	1	1	<a href="#">view</a>
AU130090	Australia - North West Approaches	1:3500000	3	11	<a href="#">view</a>
AU130120	Australia - Northern Approaches	1:3500000	9	9	<a href="#">view</a>
AU130150	Australia - North East Approaches	1:3500000	9	3	<a href="#">view</a>
AU160060	Indian and Southern Oceans - Brenner Seamounts to Banzare Bank	1:3500000	2	4	<a href="#">view</a>
AU160090	Australia - South West Approaches	1:3500000	2	5	<a href="#">view</a>
AU160120	Australia - Southern Approaches	1:3500000	2	7	<a href="#">view</a>
AU160150	Australia - South East Approaches	1:3500000	6	0	<a href="#">view</a>
AU210100	Australia - Indonesia - Java Ridge (West)	1:1500000	1	0	<a href="#">view</a>
AU210110	Australia - Indonesia - Java Ridge (East)	1:1500000	2	0	<a href="#">view</a>

### Unique File Number - Navigation Purpose 5 (ports) based on paper chart coverage

4. When the ENC is based on a paper chart the unique five character file name is based on paper chart Aus numbers, not latitude and longitude. The number can be linked to a single paper chart, multiple paper charts or the large scale plan for which it provides equivalent coverage.
5. The letter P is used to denote that the ENC is based on a single paper chart or plan from that chart.
6. ENC numbered in the form e.g. 194P0, indicates the ENC contains coverage equivalent to the main chart on Aus194. If 'P' is followed by a number in the range 1 to 9 , it is used to denote that the ENC is based on a plan from the named chart. ENC numbered in the form e.g. 256P2, indicate the ENC contains coverage of the second plan depicted on the paper chart Aus256.
7. 'X' is used to indicate a range of paper charts.
8. ENC of equivalent coverage to several charts are numbered in the form e.g. 262X4, indicating the ENC contains coverage equivalent to all charts in the range Aus262 to Aus264.
9. More examples:

Certificate / permits process



ENC File Number	Explanation
AU5194P0	An ENC based on paper chart Aus194
AU5198X9	An ENC based on a range of paper charts: Aus198 and Aus199
AU5262X4	An ENC based on a range of paper charts: Aus262, Aus263 and Aus264
AU5256P1	An ENC based on the first plan depicted on paper chart Aus256
AU5256P2	An ENC based on the second plan depicted on paper chart Aus256
AU4611P2	An ENC based on the second plan depicted on paper chart Aus611 in the Coral Sea
SB5102P2	An ENC based on the second plan depicted on paper chart SLB102
SB5102P3	An ENC based on the third plan depicted on paper chart SLB102
SB3107P1	An ENC based on the first plan on paper chart SLB107 in the Santa Cruz Islands

### 2.3.3 Understanding IHO S-63 standard (permits and certificates)

1. The majority of ENC publishers encrypt their ENC using the IHO S-63 data protection standard. All ENC covering Australian, Papua New Guinean (PNG) Australian Antarctic Territory and Solomon Islands waters published by the AHS, are protected using this standard. This includes AusENC and all other ENC services supplying official Australian published ENC.

S-63 Data protection Standard Terms	Description
Scheme Administrator (SA)	Responsible for maintaining and coordinating the S-63 Protection Scheme (e.g. IHO)
Original Equipment Manufacturers (OEM)	Build the navigation software / hardware in accordance with the S-63 Protection Scheme.
Data Server	Provide the ENC data to the clients (e.g. AHS)
User Permit	Is a permit created by OEM and supplied to the client as part of their system so that they can obtain the necessary access to encrypt ENC's from Data servers
Client	The end user e.g. mariner
Cell Permit	A Cell Permit unlocks the ENC data. Issued by the AHS to the client

## 2.4 The AusENC Service

### 2.4.1 Purchasing AusENC

1. AusENC are available through AHS appointed AUSENC Distribution Agents.

Website:	<a href="http://www.hydro.gov.au/webapps/jsp/agents/agents-list.jsp">www.hydro.gov.au/webapps/jsp/agents/agents-list.jsp</a>
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2. Australian port authorities and maritime safety agencies may request AusENC that cover their port limits or areas of operation, directly from the AHS. For further information contact the AHS via:

email:	<a href="mailto:hydro.licensing@defence.gov.au">hydro.licensing@defence.gov.au</a>
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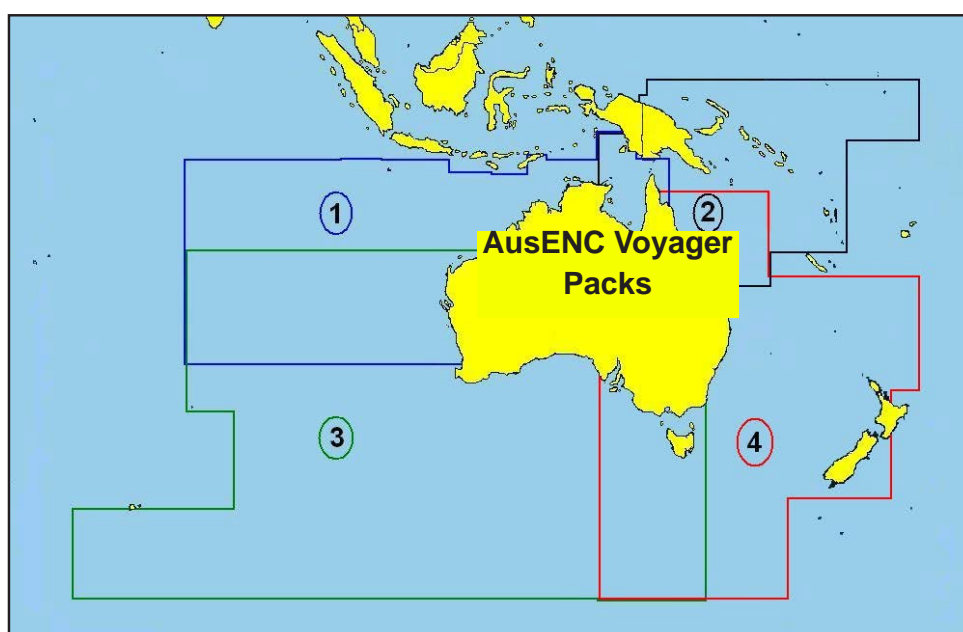
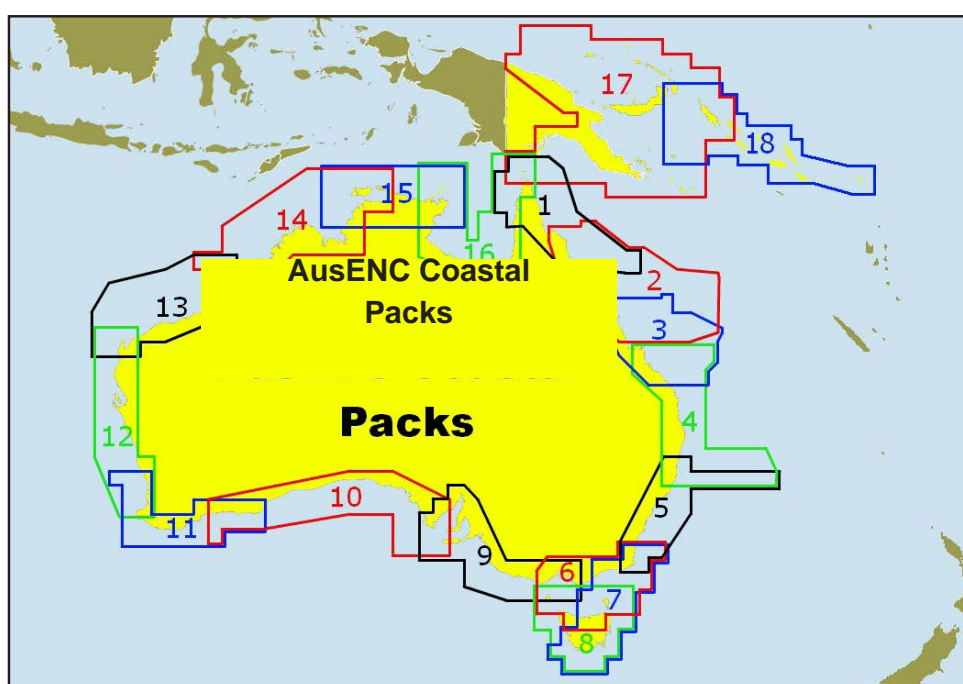
3. Access to ENC cells is controlled by permits. Subscriptions to permits are purchased for a set period. AusENC subscriptions can be purchased for 3, 6, 9 and 12 months depending on the type of AusENC packs chosen. Within that period, a user may receive a number of new permits to cover new editions of ENC within the area of coverage. If ongoing access is required beyond the subscription period mariners must renew their permits prior to expiry date for continuous access to updates. ENC that are not kept up to date will not meet chart carriage requirements under SOLAS or Australian National Standards for Commercial Vessels regulations.

## Service Packs

4. AusENC are sold in a range of packs at affordable prices with coverage tailored to Australian domestic operations. These packs are:
  - Port Packs - provide port/harbour coverage including the approach cell(s). There are over 100 packs covering Australia, Papua New Guinea and Solomon Islands (12 months subscription)
  - Coastal Packs - provide full scale coastal coverage between major ports. There are 16 packs covering Australia, one covering Papua New Guinea and one covering Solomon Islands (12 months subscription)
  - Australia Pack - provides full coverage of Australian waters and includes over 600 ENC cells (3, 6, 9 and 12 months subscription)

Website: [www.hydro.gov.au/prodserv/digital/ausENC/pack-index.htm](http://www.hydro.gov.au/prodserv/digital/ausENC/pack-index.htm)

AusENC packs available



5. The AHS also allows ENC coverage of Australian, PNG and Solomon Islands waters to be available in services offered by the IC-ENC distribution network. Vessels which require ENC coverage which extends outside Australian, PNG or Solomon Islands waters should approach the International Centre for ENCs (IC-ENC) distribution network to ensure seamless coverage for their voyage.

Website:	<a href="http://www.ic-enc.org">www.ic-enc.org</a>
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## 2.4.2 Installing an AusENC Service

1. A subscription enables the mariner to install cell permits on up to five workstations (on the one vessel or ashore). This includes:
  - multiple workstations (networking) using one S-63 user permit
  - Manufacturers issuing separate S-63 user permits for each workstation
2. Note: a shipping company wishing to use ENC on five vessels will require (at least) five ENC subscriptions and therefore at least five S-63 user permits – at least one S-63 user permit and subscription per vessel.
3. IHO S-63 compliant navigation systems should issue warnings prior to ENC cell permit expiry to provide sufficient lead time for you to purchase new subscriptions. Additionally you will receive a series of warnings via your AusENC permit email which will list the AusENC packs with subscriptions that are about to expire. These warnings will be automatically issued four weeks prior to permit expiry. One final warning will also be sent after pack expiry.
4. It is important to renew your subscription before it expires to guarantee continued access to up-to-date ENC data. Once the permits have expired, it will not be possible to load updates containing navigational critical information. ENC that are not up to date are not safe to use and will not meet any chart carriage regulations.
5. The items needed to install an AusENC service are:
  - AusENC 'Base' data CD - (issued on purchase, generated six monthly in January and July)
  - AusENC 'Update' data CD - (issued on purchase, generated each week except when it coincides with a new Base data CD. This is because all updates are incorporated in the Base data)
  - AusENC 'cell permits' - (AHS will send the cell permits via email within two working days after purchase)
6. Prior to installing the following procedure must be followed:

### Step 1 - Check the S-63 Scheme Administrator is installed

7. To use AusENC your navigation system must have the 'S-63 Scheme Administrator Certificate' (IHO.crt) installed (see 2.3.3 Understanding Permits and Certificates).
8. Consult your navigation system manual when installing the 'S-63 Scheme Administrator Certificate'.
9. The 'S-63 Scheme Administrator Certificate' can be obtained:
  - from the manufacturer (supply the certificate with their software or provide a website link to the certificate in their system documentation)
  - from the AusENC base and update CD under the directory called 'EXTRAS'
  - [www.iho.int/iho\\_pubs/standard/S-63/S-63\\_SA\\_Certificate.htm](http://www.iho.int/iho_pubs/standard/S-63/S-63_SA_Certificate.htm)

## Step 2 - Perform data cleansing

10. Use the following table to decide which data cleansing procedure to perform.

Scenario	Procedure
You are a first time user of AusENC and there are no other ENC services loaded on your navigation system	No data cleansing required
You are renewing your AusENC service and it has been less than six months since the expiry of your old AusENC service. No other ENC service is loaded on your navigation system	No data cleansing required
You are renewing your AusENC service and it has been more than six months since the expiry of your old AusENC service. No other ENC service is loaded on your navigation system	1
You are renewing your AusENC service and you have other ENC service(s) loaded on your navigation system which you want to keep	2
You are switching to AusENC from another ENC service	2

### Data cleansing procedure 1

11. It is recommend that you remove all ENC cells and corresponding permits from your navigation system prior to installing AusENC. You should consult your navigation system's operator manual for instructions on how to remove ENC cells and permits.

### Data cleansing procedure 2

12. ENC's of Australian, PNG and Solomon Islands waters will have the same AU and SB cell names regardless of the ENC service they are included in. If you do not remove duplicate AU and SB cells and permits from the other service prior to installing the new AusENC service you may experience loading difficulties and you could run the risk of navigating with out-of-date ENC's from the other service. You should consult your navigation system's operator manual for instructions on how to remove data and permits before performing this procedure.
1. If you are renewing your AusENC service and it has been more than six months since the expiry of your old AusENC service it is recommended that you remove all AusENC cells and corresponding permits from your navigation system prior to installing AusENC.
  2. Make a backup copy of the AusENC PERMIT.TXT file (emailed by the AHS).
  3. Make a backup copy of the AU and SB cells and the corresponding permits in the other service.
  4. Identify the AU and SB cells that you have permits for in the other service. You may need to consult your navigation system's operator manual to do this.
  5. Identify the AU and SB cells that you have permits for in the AusENC service (see below, How to identify the cells that you have permits for in AusENC).
  6. Remove the duplicate AU and SB cells already installed on your navigation system (from the other service).
  7. Load AusENC.

### How to identify the cells that you have permits for in AusENC

13. To identify the cells that you have permits for in the AusENC service, open the AusENC PERMIT.TXT file (use a back up copy of the file) in Wordpad or a similar text editor (if the original permit file is altered it could cause problems). The cell name which the permit applies to is the first 8 characters.

File Name	Expiry Date	Rest of permit
AU130120	20180131	AU130120201801314DD684BA9BC768CE51F2B52BD94BC754EA166B589CE8A263,0,11,AU

## Step 3 - Installing

14. The procedure for loading ENC services varies from system to system. For installation instructions consult your navigation system's operator manual.



### 2.4.3 Updating AusENC and subscription renewals

1. AusENC service includes a full update service containing Permanent, Temporary and Preliminary Notices. By loading each published update (and any corresponding cell permits) onto your navigation system you can sail with confidence knowing that your AusENC are as up to date as possible for navigationally critical information.
2. When you purchase a subscription to any AusENC pack you will automatically receive a free, weekly, web-based update service for the duration of your subscription. A CD update service is also available for a fee (to cover manufacturing and postage).
3. Update data is released weekly on Fridays, with one exception: when base data is released (see 2.4.2). Cell permits are emailed weekly on the same Friday as the update data is released.

#### Update Services

4. There are two AusENC update services:
  - **Standard service** - free, web-based service automatically provided with each AusENC pack for the duration of your subscription.
  - **Premium service** - CD based service which can be purchased for the duration of your subscription.

#### File download options





5. You can choose to download update data from the AHS website either as incremental updates or a cumulative update. Each update that is downloaded must be stored in its own unique folder structure.
6. Incremental updates correspond to individual weekly update release and therefore have small file sizes. These are zipped files and are useful to download if you update your data each week as recommended or only missing a few updates. Note however that you will need to store each incremental update in its own unique folder.
7. Cumulative update contains all updates issued since the latest base data release. This could be useful if you have not updated your ENC for some time. You can choose to download the cumulative update either as a zipped file or as an ISO disc image.

Website:	<a href="http://www.hydro.gov.au/software/products/products.jsp">www.hydro.gov.au/software/products/products.jsp</a>
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AusENC download page on website

### AusENC

These downloads are for current subscribers to the [AusENC service](#). They are only compatible with AusENC permits.

  <b>Read Me Instructions</b>	
<b>AusENC Base</b> <i>Latest Issue: Week 27-2024</i> <i>(Next release: Jan 2025)</i>	
<b>Cumulative AusENC Update</b> <i>Week 49</i>	
<b>Incremental Updates</b>	Week 29-2024, Week 31-2024, Week 33-2024, Week 35-2024, Week 37-2024, Week 39-2024, Week 41-2024, Week 43-2024, Week 45-2024, Week 47-2024, Week 49-2024

### Points to remember:

Ensure you have the latest Base and Update CD (or electronic equivalent).

- Follow the manufacturer instructions precisely.
- Ensure that your latest ENC cell permits are loaded.
- Make sure all layers are displayed on the ECDIS when checking updates.
- Updates are also used to cancel withdrawn cells - if you retain the withdrawn cell the system will generate a warning if the withdrawn cell is used.
- Update data only corresponds to a particular edition of Base data. You must load updates that relate to the correct Base data.
- Cell permits for any new cells or new editions of cells contained within your AusENC packs will be sent to you via email for the duration of your subscription. This should occur on the same day as each Australian NtM edition is published.
- AusENC permits are specific to a particular weekly Update release. When new permits are supplied, it is important to load them and the corresponding ENC update data onto your navigation system at the same time. Loading new permits without the corresponding update data may remove access to previously installed ENC cells. Loading update data without corresponding permits (when supplied) will deny access to new ENC cells released in the update and may even result in access disappearing to previously accessible cells (where a cell has been cancelled and released in the same geographical area with a new file name).
- Retain a copy of your latest Base CD. Previous editions of Base data should be destroyed.
- Retain a copy of your latest cumulative update CD, or the full set of your incremental update CDs, which corresponds to your latest Base CD.
- Retain a copy of your latest Permits.

### 2.4.4 How to check that all updates have been applied to an ENC

1. Updates to ENC are sequential. The sequence is unique to each ENC. During the updating process, an ECDIS always checks that all updates in the sequence have been applied. If an update is missing then the ECDIS will indicate this. It is not possible to load later updates until earlier updates have been applied to that particular edition of an ENC.
2. An ECDIS maintains an internal list of updates that have been applied and the date of application. The update process allows for ENC cell update history to be manually interrogated. An update list of ENC cells loaded can be checked on screen and / or printed out. Users should refer to the system manual.
3. Should there be any issues with the update procedure the software manufacturer should be consulted, however if there are any problems regarding the AusENC data, then advice should be sought from the AHS via email.

Technical Support email:	<a href="mailto:hydro.techsupport@defence.gov.au">hydro.techsupport@defence.gov.au</a>
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### 2.4.5 AusENC Chart Service Certificates

1. The AusENC service (and some IC-ENC services) include Chart Service Certificates. These certificates provide evidence that the ENC packs in use meet chart carriage requirements as specified in SOLAS Chapter V and the [Navigation Act 2012 \(Cth\)](#) up to the specified date, provided the ENC are maintained for updates. These certificates can be presented to Port State Controllers for local inspection.

## 2.5 Training

1. The International Maritime Organisation (IMO) Committee on Standards for Training, Certification and Watchkeepers (STCW) approved a standardised IMO “Model Training Course on the Operational Use of ECDIS” (Model Course 1.27). The primary objective of the Model Course is to ensure proper use and operation of ECDIS in terms of a thorough understanding and appreciation of its capabilities and limitations.
2. For more information on ECDIS training contact the Australian Maritime College (AMC):

Australian Maritime College (AMC)	
Telephone (Aust only):	+61 (03) 6226 2999 1300 363 864
International:	+61 (03) 6324 3775
email:	<a href="mailto:amcinfo@amc.edu.au">amcinfo@amc.edu.au</a>
Website:	<a href="http://www.amc.edu.au">www.amc.edu.au</a>

Smartship Australia	
Telephone (Aust only):	+61 7 3358 9300
email:	<a href="mailto:business@smartshipaustralia.com.au">business@smartshipaustralia.com.au</a>
Website:	<a href="http://www.smartshipaustralia.com.au">www.smartshipaustralia.com.au</a>

## 2.6 Temporary and Preliminary Notices in ENC

1. ENC from most nations, including Australia, include updates aligned to Temporary and Preliminary Notices to Mariners. These are applied to the ENC or removed again as part of the continually supplied updates.
2. However, not all nations provide the same service. The following nations have other agreements, for which it is necessary that mariners continue to read paper Notices to Mariners and if necessary make a manual correction within that ECDIS or ECS.

Status of T & P NtM in ENCs

Producer (Country)	Producer Code	Temporary (T)	Preliminary (P)
Bahrain	BH	U/K	U/K
China (People's Republic)	C1	X	X
China (People's Republic) - Hong Kong	C2	√	N/A
France	FR	√	√
India	IN	X	X
Indonesia	ID	N/A	N/A
Japan	JP	√	√
Korea (Republic of)	KR	X	X
Malaysia	MY	X	X
Malacca and Singapore Straits	MS	√	√
Pakistan	PK	X	X
Philippines	PH	X	X
Portugal	PT	√	√
Russia	RU	N/A	N/A
Singapore	SG	√	√
Thailand	TH	X	√
United States of America	US	X	N/A
Vietnam	VN	U/K	U/K
U/K = Unknown N/A = No T or P service is provided for any chart format √ = The T or P service for paper nautical charts is replicated as Updates for ENC X = The T or P service for paper nautical charts is <u>not</u> replicated as Updates for ENC			

## Chapter 3) NOTICES TO MARINERS

### 3.1 Introduction

1. Notices to Mariners (NtM) are the means by which all national hydrographic offices provide the latest safety critical information to mariners. Australian NtM are the authority for correcting Australian paper nautical charts and Australian nautical publications and for determining the current edition of each chart and publication.
2. NtM are published fortnightly to correct and maintain the following products:
  - [Australian paper nautical charts \(AUS charts\)](#)
  - [Solomon Islands paper nautical charts \(SLB charts\)](#)
  - [Australian National Tide Tables](#)
  - [Seafarers Handbook for Australian Waters](#)
3. In addition they notify mariners of:
  - the release or withdrawal of Australian Nautical Products
  - the release or withdrawal of Solomon Islands Nautical Products
  - updates to AusTides
  - the release or withdrawal of Admiralty Nautical Publications (United Kingdom products) covering the Australian Charting Area and adjacent areas.
4. The same information promulgated via NtM is also included in updates to Electronic Navigational Charts (ENC). Procedures for updating ENC can be found in Chapter 2.4.

#### 3.1.1 How to Obtain Australian Notices to Mariners?

1. Copies of Australian NtM are available free of charge from the Australian Hydrographic Service (AHS) website as either a downloadable PDF or through the free eNotices service. Some AHS Chart Distribution Agents also provide a paper NtM service on a cost recovery basis.
2. The following NtM services can be accessed from the AHS website:

Fortnightly Notices to Mariners Editions, Tracings and Blocks	PDF files	<a href="http://www.hydro.gov.au/n2m/notices.htm#view">www.hydro.gov.au/n2m/notices.htm#view</a>
Fortnightly Supplements <ul style="list-style-type: none"> <li>• BA Supplement</li> <li>• Cumulative List</li> <li>• Temporary and Preliminary Notices</li> </ul>	PDF files	<a href="http://www.hydro.gov.au/n2m/notices.htm#view">www.hydro.gov.au/n2m/notices.htm#view</a>
eNotices (Fortnightly Notices to Mariners and Annual Notices to Mariners)	Customised email service	Subscribe at: <a href="http://www.hydro.gov.au/enotices/enotices.htm">www.hydro.gov.au/enotices/enotices.htm</a>
A List of all applicable Permanent, Temporary and Preliminary Notices to Mariners for each current paper (and RNC) chart	View on screen. Click on view in the details column	Available from the 'Details' section of the Standard Australian Chart Index, Paper Chart List <a href="http://www.hydro.gov.au/webapps/jsp/charts/chartlist.jsp">www.hydro.gov.au/webapps/jsp/charts/chartlist.jsp</a>

3. All NtM editions are available from 1997 onwards on the AHS website. NtM blocks and notes are available from 1999 and NtM tracings are available from 2001.

## 3.2 Annual Notices to Mariners (PDF)

1. The [Annual Notices to Mariners \(ANtM\)](#) has been withdrawn and its content has been transferred to the 4th edition of the Seafarers Handbook for Australian Waters (AHP20). See table below for AHP20 references.


Old ANtM Reference	Subject	Seafarers Handbook for Australian Waters paragraph reference
1	Australian Charting and Notices to Mariners	13.1, 13.6
2	Distributors for the Sale of Australian Navigational Products	13.6.2
3	Laser Airborne Depth Sounder	11.10.4
4	Search and Rescue	9.6
4A	Modernised Australian Ship Tracking and Reporting System (MASTREP)	10.1
4B	HF and VHF Marine Radio Services for Small Craft	9.3.4, 9.4.1
5	The AMVER Organisation (Automated Mutual Assistance Vessel Rescue System)	10.2
6	Global Maritime Distress and Safety System (GMDSS)	9.1
7	Maritime Safety Information	9.2
8	Inmarsat-C EGC System	9.6.5
9	Firing Practice and Exercise Areas	11.10
10A	Differential GPS	8.5
10B	Radar Beacons (RACONS)	N/A no longer supplied
10C	Torres Strait Tide Gauges	8.12
11	Hydrographic Notes	13.11
12	Areas Dangerous Due to Mines and Unexploded Ordnance	6.17
12A	Dumping Grounds	6.10, 6.17
13	Oceanographic Data Acquisition System (ODAS)	8.17
14	Submarine Cables and Pipelines	8.20
15	Oil Rigs and Offshore Structures	8.15
16	Traffic Separation Schemes	8.15.2
17	Symbols used on Australian charts	6.1.3
18	Caution with Regard to Ships Approaching Formations etc	11.10.3
19	Information Concerning Submarines	11.10.2
20	Quarantine (Pratique) and Ballast Water Pre-Arrival Report for Vessels	11.9.1, 11.9.8
21	Navigation in the Great Barrier Reef and Torres Strait	8.9
22	Mandatory Ship Reporting System	10.3.2, 10.3.3
23	Great Barrier Reef and Torres Strait Pilotage Services	8.13
24	Dumping Waste at Sea	6.9
25	Requirements for Reporting Pollution Incidents	6.8
26	Disposal of Garbage at Sea	6.9.1

## 3.3 Fortnightly Notices to Mariners (PDF)

1. Paper nautical charts and publications should be corrected by [fortnightly NtM](#) to ensure they are fully up to date with the latest safety critical navigational information. Editions of NtM are published on the AHS website for download on Friday of each fortnight.
2. The content of NtM is explained in the remaining paragraphs of this chapter. How to apply a notice to a paper chart and publication is explained in Chapter 4.2 and Chapter 5.4.

3. The accuracy of latitude and longitude positions published in NtM will vary depending on the scale of the chart. Positions are always written in degrees, minutes and decimal minutes. The table below is a guide only, there may be exceptions.

Scale of Chart	Accuracy
Larger than 1:50 000	3 decimal minutes
1:50 000 to 1:500 000	2 decimal minutes
Smaller than 1:500 000	1 decimal minute



**12 August 2016**
**Edition 16**

Australian Notices to Mariners are the authority for correcting Australian Charts and Publications

## AUSTRALIAN NOTICES TO MARINERS

**Notices 858 - 915**

Published fortnightly by the Australian Hydrographic Service

Commodore B.K. BRACE RAN  
*Hydrographer of Australia*

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**SECTIONS.**

**3**

- I. Australian Notices to Mariners, including blocks and notes.
- II. Hydrographic Reports.
- III. Navigational Warnings.

**SUPPLEMENTS.**

**4**

- I. Tracings
- II. Cumulative List of Australian Notices to Mariners.
- III. Cumulative List of Temporary and Preliminary Australian Notices to Mariners.
- IV. Temporary and Preliminary Notices in force.
- V. Amendments to Admiralty List of Lights and Fog Signals (Vol K), Radio Signals (NP 281(2), 282, 283(2), 285, 286(4)) and Sailing Directions (NP 9, 13, 14, 15, 33, 34, 35, 36, 39, 44, 51, 60, 61, 62, 100, 136).

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AHP 18

**Notes:**

1. Edition number - Australian Notices to Mariners are numbered from 1 onwards and are published in 25 fortnightly editions each calendar year.
2. Notice numbers restart each calendar year. The first and last notice number contained in each edition is indicated on the front cover of the publication.
3. Sections - Refer to 3.3.1.
4. Supplements - Refer to 3.3.4.



### 3.3.1 Section I - Australian Notices to Mariners, including Blocks and Notes

- The following information is published in Section I of NtM:

#### Notification of new charts and new editions (Paper only)

- Charts superseded by new editions and new charts are promulgated by NtM as shown in the example below. Superseded charts are not maintained by NtM and should not be used for navigation.

#### 800 AUSTRALIA - Products - New Charts, New Editions, Withdrawn Charts

Australian Hydrographic Service (AA897375), UKHO (AA897600)

##### New Charts

Chart	Title and Geographical limits	Scale	Publication Date	Remarks
Aus 25	Australia - North Coast - Northern Territory - Port Darwin (Northern Sheet) 12° 16' 00 S – 12° 29' 28 S 130° 36' 20 E – 130° 57' 50 E	1:37 500	29 July 2016	New chart providing improved coverage of Port Darwin with general updating throughout; including latest surveys.
Aus 26	Australia - North Coast - Northern Territory - Port Darwin (Southern Sheet) 12° 26' 44 S – 12° 39' 70 S 130° 40' 62 E – 131° 02' 00 E	1:37 500	29 July 2016	New chart providing improved coverage of Port Darwin with chart rescheme and general updating throughout; including latest surveys. <b>Chart Aus 26 Edition 4 dated 8 May 2015 must be withdrawn from use.</b>

#### Charts permanently withdrawn

- Charts are permanently withdrawn on publication of a new chart or new edition (same chart number). Charts are 'permanently withdrawn charts without replacement', when a new chart of similar, or improved, coverage is released with a different number. Withdrawn charts are not to be used for navigation.

#### New Editions and Withdrawn Charts

Chart	Title	Scale	Publication Date	Remarks
Aus 253 <b>Edition 6</b>	Australia - East Coast - Queensland - Whitsunday Passage	1:37 500	8 April 2016	Limited new edition with general updating throughout and chart rescheme; including the withdrawal of the Shute Harbour plan. <b>Chart Aus 253 Edition 5 dated 5 June 2015 is now superseded and must be withdrawn from use.</b>

#### Charts withdrawn without replacement

Chart	Title	Scale	Publication Date
Aus 199 <b>Edition 3</b>	Australia - East Coast - New South Wales - Botany Bay	1:12 000	9 August 1996
Aus 333 <b>Edition 2</b>	Australia - West Coast - Western Australia - Geraldton to Wedge Island	1:300 000	25 September 2009
Aus 334 <b>Edition 2</b>	Australia - West Coast - Western Australia - Ledge Point to Cape Naturaliste	1:300 000	13 October 2000
Aus 383 <b>Edition 1</b>	Papua New Guinea - North East Coast - Bonvouloir Islands to Woodlark Island	1:300 000	3 November 1995
Aus 390 <b>Edition 1</b>	Papua New Guinea - South Pacific Ocean - Manus Island to Wuvulu Island	1:500 000	19 November 2010

When placing orders with a chart agent between notice of a forthcoming edition and its publication, mariners should advise whether their order pertains to the current edition or the new edition.

### Notification of a new publication or new edition

4. This notification is for Australian publications only. Once the new edition is received, superseded publications should be archived or destroyed. Superseded editions should not be used for navigation.

Australian Hydrographic Publication				
AHP No	Title	Publication Date	Price	Remarks
AHP19	Annual Australian Notices to Mariners 2016.	22 April 2016	Free	The 2015 edition is cancelled.  Can be downloaded from: <a href="http://www.hydro.gov.au/n2m/notices.htm">http://www.hydro.gov.au/n2m/notices.htm</a>
AHP20	Seafarers Handbook for Australian Waters (Fourth Edition).	22 April 2016	\$59.95	The third edition is cancelled.

### Amendments to Australian nautical publications

5. Corrections to the Seafarers Handbook for Australian Waters, Australian Tide Tables and advice of downloads for Austides are listed in Section I. Corrections are promulgated for current editions only.

<b>860</b>	<b>AUSTRALIA - Product - Amendment to Australian National Tide Tables 2016</b>
Australian Hydrographic Service (AA901185)	
Page xxxi	
Amend	Darwin To Chart Datum AUS 26 NC 29 JUL 2016 0.0

### Permanent notices

6. This notice is issued for the prompt dissemination of permanent navigational information considered important to safe navigation. The star (\*) adjacent to the notice number indicates that the notice is based on data sourced within Australia. A notice without a star will indicate a reproduction of a foreign NtM.

Source: where the information came from

<b>866*</b>	<b>AUSTRALIA - QUEENSLAND - Cape Tribulation - Wreck southwards</b>
Former Notice - 712(T)/2016 is cancelled	
Maritime Safety Queensland (SIRF2016005043, SIRF2016005664)	
<b>Aus 831</b> [633/2016]	
Insert	dangerous wreck 16° 08'.3 S 145° 27'.3 E
Delete	depth, 3 <sub>2</sub> m 16° 08'.5 S 145° 27'.3 E

The last notice applied to the chart

### Temporary notices

7. A Temporary notice is issued where the information will remain valid only for a limited period. A Temporary notice is indicated with a (T) adjacent to the notice number.

<b>904(T)/2016</b>	<b>AUSTRALIA - VICTORIA - Port Phillip - Davey Point - Light beacon destroyed</b>
Parks Victoria Notice 218(T)/2016 (SIRF2016005652)	
The west cardinal light beacon, VQ(9)10s (38° 09'.65 S 145° 05'.20 E), has been destroyed.	
<b>Chart temporarily affected - Aus 143</b>	

### Preliminary notices

8. A Preliminary notice is indicated with a (P) adjacent to the notice number. They are issued where advance promulgation to mariners is needed e.g. planned alteration to a light. A Permanent notice will be promulgated when the work is completed.

**823(P)/2016 AUSTRALIA - NEW SOUTH WALES - Clarence River - Yamba - Shoaling**

Port Authority of New South Wales (DSID 3159953)

Shoaler depths than those charted exist in the entrance to Clarence River (29° 25'.6 S 153° 22'.3 E).

Shoaling has extended the 2m bank southeastwards, with a least depth of *1.8m* marking the southern limit in position 29° 25'.04 S 153° 21'.02 E.

*Note:* Chart to be updated in due course.

**Chart which will be affected - Aus 222**

### Blocks and chart notes

9. Blocks and Chart Notes are a replacement portion of a chart or printed publication. They are produced where there is significant new information important to safe navigation in a relatively small area, or where the volume of changes would clutter the chart if amended by hand. Blocks and Notes are designed to be cut out and manually pasted onto the relevant chart. See examples on next page. Blocks may also be referred to by other nations as a "Patch".
10. Chart notes are published in three text colours:
  - magenta - cautionary
  - green - environment
  - black - explanatory

Chart block example

Notice

706\*

AUSTRALIA - SOUTH AUSTRALIA - Port Macdonnell - Infrastructure; depths; nav aids

Former Notice - 467(T)/2014 is cancelled

Department of Planning, Transport and Infrastructure SA (SIRF2015000810)

Aus 348 (plan, Port Macdonnell) [367/2014]

Insert

accompanying block

38° 03'.7 S

140° 42'.2 E

Block for Aus 338  
NTM 706/2016

To accompany Australian Notice to Mariners 706/2016

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Block for Chart Aus 348

(97.9 x 84.4mm)

Chart note example

Notice

878\*

AUSTRALIA - VICTORIA - Anderson Inlet - Estuary and River Entrance

Gippsland Ports Notice 221/2016 (SIRF2016005699)

Aus 801 [394/2016]

Insert

legend *Estuary and River Entrances* (see Note), centred on  
accompanying note

38° 41'.3 S

145° 42'.2 E

38° 46'.2 S

145° 58'.4 E

Block for Aus 801  
NTM 878/2016

To accompany Australian Notice to Mariners 878/2016

ESTUARY AND RIVER ENTRANCES

The crossing of coastal bars and entry to rivers and estuaries is potentially dangerous. Bars and entrances are dynamic in nature, hence the depth and preferred approach may vary. Leading beacons and other navigational aids may not always indicate the best approach. If mariners are unsure of the condition at a particular bar or entrance, local information should be sought prior to crossing.

Note for chart Aus 801

[Contents](#)

34

[Index](#)



### 3.3.2 Section II - Hydrographic Reports

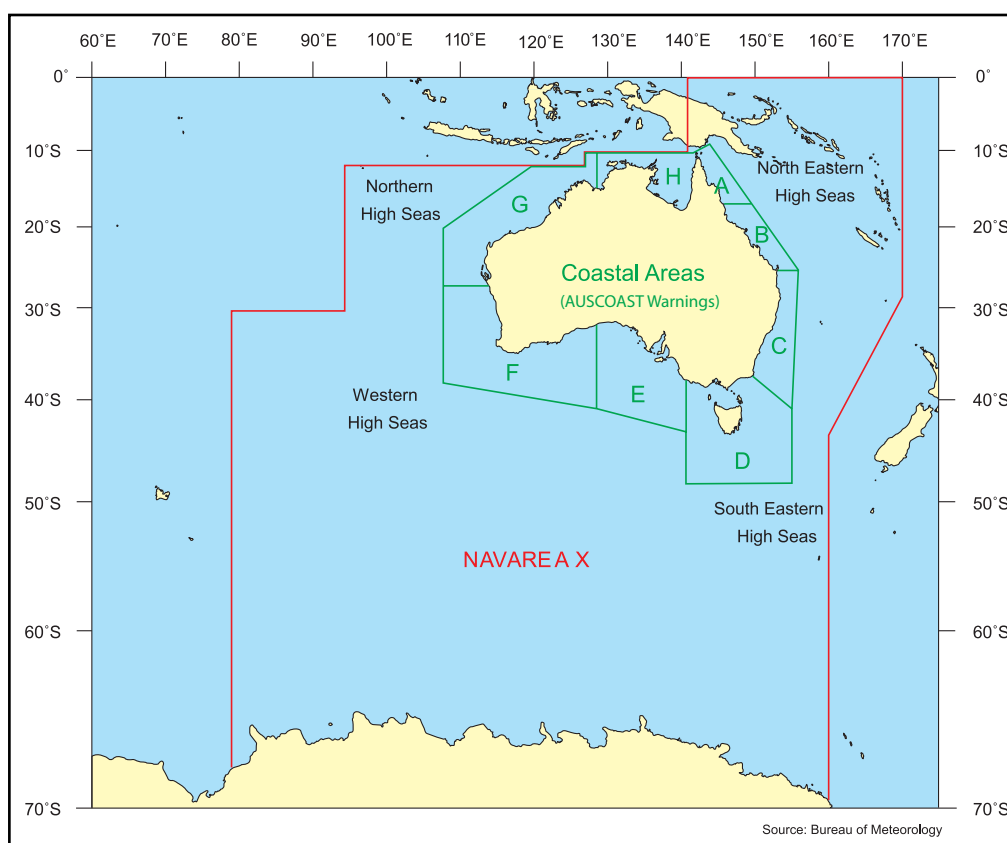
1. Hydrographic Reports conveying information useful to the mariner are always welcome at the AHS. Such information will be used to improve existing charts, Sailing Directions and other navigation products in both the Australia's Charting Area and worldwide. See Section 1.6 for further details.
2. Section II acknowledges the receipt of Hydrographic Reports as shown in the following example:

HYDROGRAPHIC REPORTS			
Locality	Report	Ship/Authority	Observer
NSW- Botany Bay	Buoys	MV <i>Diamond Princess</i>	
WA- Montebello Islands	Buoys	MV <i>Four Rainbow</i>	

### 3.3.3 Section III - Navigational Warnings

1. AUSCOAST and NAVAREA X warnings are issued by Australian Maritime Safety Authority (AMSA) with in the following limits:

NAVAREA X and Coastal Areas



### AUSCOAST Warnings (Coastal Navigational Warnings)

- These warnings are important navigational warnings prefixed AUSCOAST and numbered consecutively on an annual basis. They are broadcast for as long as the information is valid.

### NAVAREA X Warnings (Long Range Navigational Warnings)

- These warnings will only be issued in relation to navigational aids or dangers outside the Australia coastal areas.
- AUSCOAST and NAVAREA warnings can be accessed via:

Website: [www.amsa.gov.au/search-and-rescue/distress-and-safety-comms/msi/msi-email/index.asp](http://www.amsa.gov.au/search-and-rescue/distress-and-safety-comms/msi/msi-email/index.asp)

- All warnings should be temporarily recorded on the affected paper charts using a 2B pencil and/or loaded onto an Electronic Chart Display and Information System (ECDIS) as a manual entry, to ensure that warnings are not missed.
- A Navigational Warning log sheet is provided in Chapter 6.

### 3.3.4 Supplements

- The following supplements linked to the NtM can be downloaded from the AHS website:
  - Supplement (i) Tracings
  - Supplement (ii) Cumulative List of Australian NtM
  - Supplement (iii) Cumulative List of Australian Temporary and Preliminary Notices (list by chart)
  - Supplement (iv) Temporary and Preliminary Notices (list by full notice)

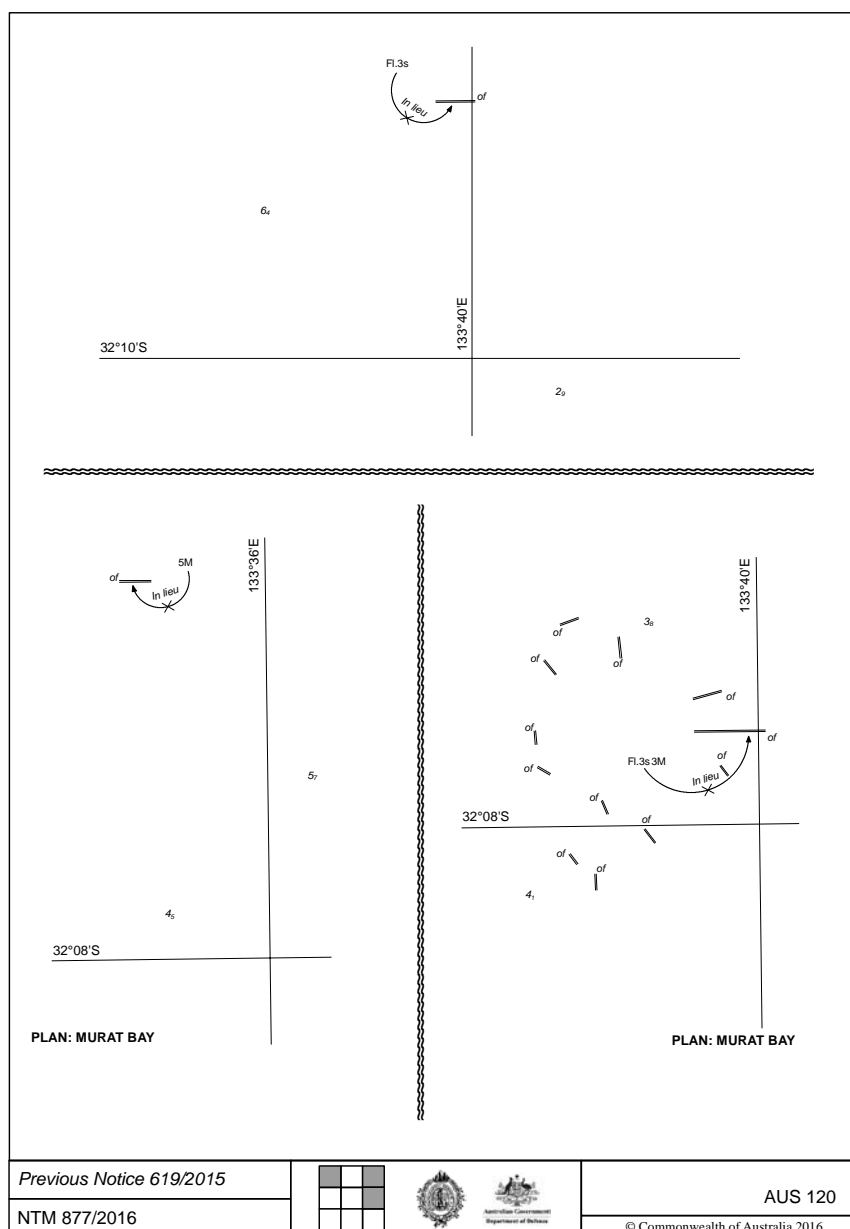
Website: [www.hydro.gov.au/n2m/notices.htm](http://www.hydro.gov.au/n2m/notices.htm)

- To access these supplements via the website, select where shown below:

VIEW NOTICES TO MARINERS EDITIONS AND TRACINGS			
	Publication 	Supplements 	
Notice Edition		Tracings (I)	Others (II-V)
Edition 16 - NTMs 858 - 915	Full Edition Text Only Blocks Only	Tracings	<div>                     (II) Cumulative List                      (III) Cumulative List (T&amp;P)                      (IV) Temp &amp; Prelim                 </div>

## Tracings

- NtM tracings are produced to assist the mariner to update their charts. They are diagrams that provide guidance on how to apply NtM updates. They are overlaid on the chart and the position of each feature can be pierced through to the chart with a pin to enable the feature to be drawn in position. A set of tracings are available for each published Australian NtM edition, similar to the example below:



- See section 4.4.4 for instructions on printing at correct scale.

## Cumulative Lists of Australian Notices to Mariners

5. The most effective means of maintaining the currency of paper charts is via the Australian Chart Index (ACI). This provides a direct link to each and every notice affecting the current edition of each chart. This is explained at chapter 4.2.4.
6. For those mariners correcting their charts from individual NtM editions a [Cumulative List](#) is produced to assist mariners to maintain chart currency. The list has the current edition date and all the NtM updates that have affected each Australian paper nautical chart in the last two years. The Cumulative List is published as a supplement to each fortnight NtM edition.
7. Cumulative list supplement example below:

<i>Chart Number</i>	<i>Current Edition</i>	<i>Notices to Mariners affecting the chart from Edition 16 dated 15 Aug 2014</i>
Aus 315	Sep 2015	<b>2016-342-387</b>
Aus 316	Sep 2015	<b>2015-1145 2016-344</b>
Aus 317	May 2008	<b>2015-615</b>
Aus 318	Oct 2012	<b>2014-816-1004 2015-730-779-1237-1290 2016-289</b>
Aus 319	Dec 2015	<b>2016-188-242-289-342</b>
Aus 320	Nov 2009	<b>2015-171-615-670-776-832-1241-1290 2016-242-645-762</b>
Aus 321	May 2008	<b>2015-1353</b>
Aus 322	Apr 2015	<b>2015-615-670-776 2016-289</b>
Aus 323	Nov 1995	<b>2014-904 2015-776-1241 2016-762-818</b>
Aus 324	Aug 2010	<b>2014-815 2015-471-728 2016-387-389-643</b>
Aus 325	Sep 2012	<b>2015-1291</b>
Aus 326	Sep 2012	<b>2015-1242-1291</b>
Aus 327	Sep 2012	<b>2014-903-1120 2015-618-731-830-831-927-928-1292</b> <b>2016-289-348-391-392-450-549-593-704-756</b>

## Temporary and Preliminary Notices in Force

8. A summary of Temporary and Preliminary notices in force are available via:
  - fortnightly NtM - summary published every quarter (first edition every January, April, July and October)
  - Temporary and Preliminary Supplement on website (see example below)

TEMPORARY AND PRELIMINARY NOTICES In force on 12 August 2016	
NEW SOUTH WALES	
<b>43(T)/2015</b>	<b>AUSTRALIA - NEW SOUTH WALES - Clarence River - Harwood - Obstructions</b>
Port of Clarence River (Yamba) 002(T)/2015 (AA784201)	
Underwater obstructions exists in the vicinity of 29° 25'.52 S 153° 16'.06 E.	
<b>Chart temporarily affected - Aus 222</b>	
<b>680(T)/2015</b>	<b>AUSTRALIA - NEW SOUTH WALES - Port Kembla - Dredging operations; light withdrawn</b>
Former Notice - 627(T)/2015 is cancelled Port Kembla Port Corporation Notice 2/2015, 3/2105 (AA813226, AA813823)	
Dredging operations are in progress at 103 berth (34° 27'.17 S 150° 53'.76 E).	
Special purpose buoys, Q, Y, exist in the following positions: 34° 27'.36 S 150° 53'.63 E 34° 27'.82 S 150° 53'.79 E 34° 27'.90 S 150° 54'.58 E 34° 28'.38 S 150° 54'.68 E 34° 28'.27 S 150° 54'.50 E	
Spoil will be deposited in an area to the west of No4 Jetty, enclosed by a silt curtain marked by special light buoys, Q, Y.	
The rear lead, F.Bu (34° 26'.92 S 150° 53'.70 E) has been temporarily withdrawn.	
<b>Chart temporarily affected - Aus 194 - Aus 195</b>	



### 3.4 Accessing Notices via the Australian Chart Index (Online)

1. The content of Australian NtM is also available on-line via the ACI. This directly links the current edition of each chart with a list of all notices affecting the chart. This avoids the need to search Cumulative Lists and NtM editions. It is particularly useful when a mariner's portfolio of charts is relatively small or only a few charts need updating ahead of a specific voyage. For details, see Section 4.2.4.

### 3.5 eNotices

1. [eNotices](#) is a free service provided by the AHS which enables the mariner to receive individual Australian NtM by email. This service can be customised by users selecting specific charts and publications that they hold. An email is automatically generated when a fortnightly NtM is published. The email will contain the following:
  - notices for the charts and publications tailored to the mariner's subscription
  - notification if there are no notices applicable to the mariner's holdings in the current NtM edition
  - notification of charts and publications published or withdrawn
  - important announcements for chart and publication users
2. eNotices do not include blocks or tracings. This allows eNotices email file sizes to remain small compared to the full fortnightly Australian NtM, and therefore is more easily downloaded at sea.
3. Subscription is available on the [AHS website](#).

### 3.6 Admiralty Notices to Mariners

1. Admiralty Notice to Mariners (NM) can be downloaded from the UKHO website in PDF under the Maritime Safety Information tab or via the links below.

Notice to Mariners link:	<a href="http://www.admiralty.co.uk/maritime-safety-information/admiralty-notices-to-mariners">www.admiralty.co.uk/maritime-safety-information/admiralty-notices-to-mariners</a>
Admiralty NM Database link:	<a href="http://www.ukho.gov.uk/nmwebsearch">www.ukho.gov.uk/nmwebsearch</a>

2. The Admiralty NM Database allows users to search by chart number for NM text, blocks and notes.

## Chapter 4) PAPER NAUTICAL CHARTS

### 4.1 Introduction

1. Paper charts must be kept up to date at all times in accordance with the [International Convention for the Safety of Life at Sea \(SOLAS\)](#) Chapter V, and the National Standards for Commercial Vessels. See Chapter 1 for further information.

#### 4.1.1 What is a new chart?

1. The production of new charts is an ongoing process. They most commonly reflect a significant change of coverage, scale or datums, or occasionally an area not previously charted. They often supersede an existing paper chart. Their publication is announced in Australian Notices to Mariners (NtM), with the notice including details of any chart affected or replaced. The date the chart was first published can be found in the centre of the lower margin of the chart.

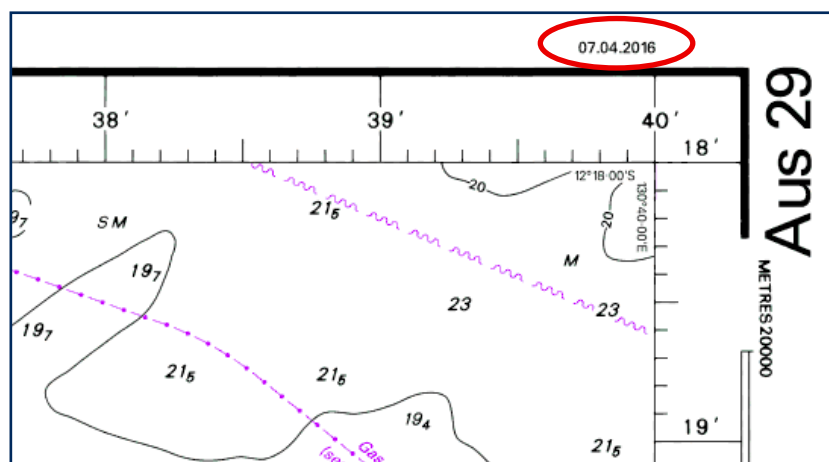
#### 4.1.2 What is a new edition?

1. A new edition of a chart is produced when there is new information which is too large for a block correction or NtM. The new edition also incorporates all NtM issued for the previous edition. The chart's edition date can be found adjacent to the bottom margin near the publishing date. See diagram at Section 4.2.3.
2. New editions are announced by NtM and supersede previous editions of that chart. NtM issued after a new edition are released should not be applied to the previous edition as they are applicable only to the new edition's datum and embedded information.
3. Once the withdrawal notice for an existing chart is promulgated, the old edition should be marked as superseded and replaced prior to next use.
4. New paper charts and new editions published by the AHS are normally available from Australian chart agents within the week immediately following publication, and within two weeks from AHS overseas agents. Subject to these time frames, vessel Masters are expected to make every effort to obtain the new chart before transiting through the area it depicts. If the area must be transited using the old edition before reaching the next port, every effort should be made to obtain the new chart before return passage through that area is undertaken.
5. As reproduction by the UK Hydrographic Office takes approximately five weeks after publication of the Australian original, ships transiting the area covered by a new chart or new edition within the intervening period should request UKHO chart agents to source the Australian original version.

## 4.2 Updating Paper Nautical Charts

### 4.2.1 Chart print date

1. All AUS and SLB paper nautical charts are printed from files updated in the fortnight following publication of each NtM edition. The date of the print file is shown in the upper right corner of each chart. If the date is less than two weeks old, it is highly unlikely that any further notices have yet been published for that particular chart and at most, only reference to the latest edition of NtM will be required. For charts older than two weeks, a check of the latest notice applied will be required.



2. All AUS and SLB paper nautical charts are derived from content within an ENC. They either have the same content as the ENC or a subset of that content optimised for the fixed viewing scale of the paper chart.

### 4.2.2 Are charts up to date when purchased?

1. Do not assume charts are up to date on the purchase date.
2. If you have purchased your Australian paper nautical charts from an authorised AHS 'Correcting Agent', your charts should be up to date for NtM at the time of purchase. This is because Correcting Agents hand correct their stock for the latest notices, including when they receive fresh stock from the AHS affected by the latest published NtM edition. However, it is still good practice to check the print date and reference NtM editions published post this date.
3. If you have purchased your Australian paper nautical charts from an authorised AHS 'Non-Correcting Agent' or a retail outlet of one of our authorised agents it is unlikely that your charts will be up to date. This is because Non-Correcting Agents and retail outlets do not hand correct their stock and there could be a significant delay between delivery of freshly printed stock to the Non-Correcting Agent or retail outlet and purchase by you. Even if you purchase your charts within two weeks of their print dates they could still potentially be out of date by one NtM edition. You should therefore expect to update your charts before use.

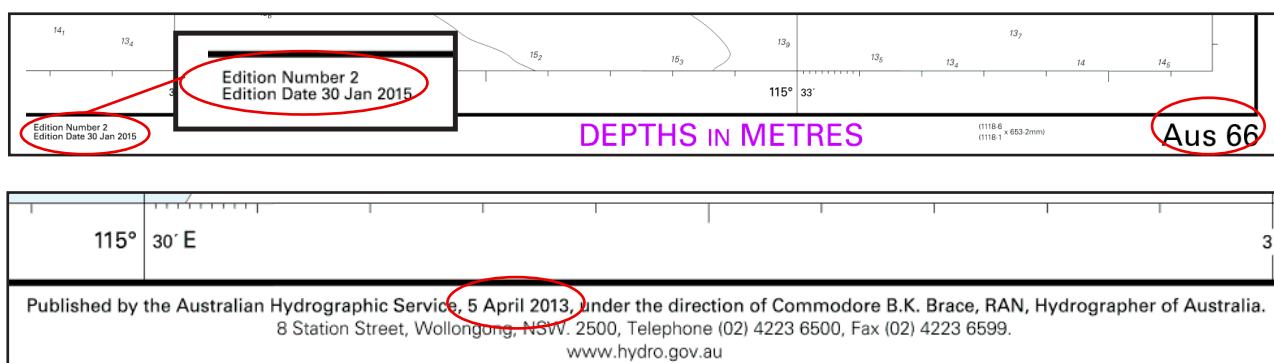
AHS Distribution Agents:

[www.hydro.gov.au/webapps/jsp/agents/agents-list.jsp](http://www.hydro.gov.au/webapps/jsp/agents/agents-list.jsp)

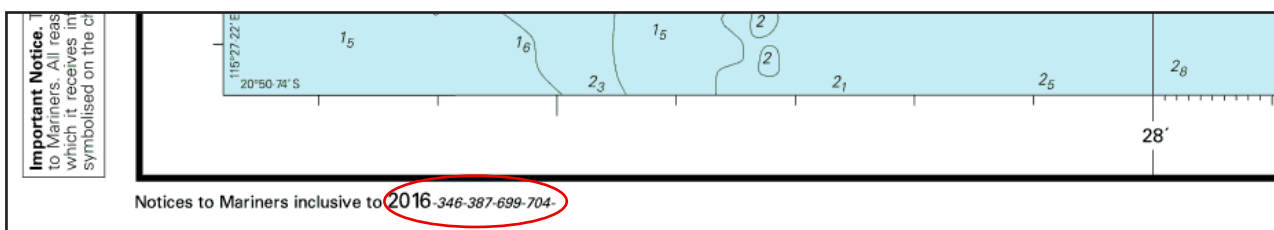
### 4.2.3 Determining how up to date a chart is

1. To determine the update status of your chart, conduct the following checks:

- Identify the chart number on your chart. The chart number can be found on the top left or bottom right corner of your chart. In the example below the chart number is 'Aus 66'.
- Identify the edition of your chart. The edition date can be located at the bottom of a chart. If the edition date is number 1, the date can be located in the 'published by' information in the centre of the chart.



- Check the last NtM to be applied to your chart. The NtM that have been applied to the chart are listed on the chart's bottom left corner. NtM are numbered from '1' onwards each calendar year and are therefore unique and specific to a particular piece of safety critical information. The numbers written in the larger text represent the calendar year a NtM was issued. The numbers written in the smaller text are the Notice numbers. In the example below, four NtM has been applied to this copy of Aus 66 and the last NtM applied is NtM '704' of '2016'.



- If the NtM numbers are written in black type (like in the example) then the NtM have been incorporated into your chart base prior to printing. If the NtM numbers are written in magenta ink or appear hand written, then the NtM have been applied to your chart by hand correction.

Notices to Mariners inclusive to 2016-346-387-699-704-

- Go to the AHS website and select the 'Standard ACI' then select 'Paper Chart List' and scroll down to find the chart that matches your chart number. In this example it is Aus 66.
- Click Aus 66 then click on 'view'. A similar chart details page to the one on the next page will appear. A diagram to depict how to find chart details using the Standard ACI can also be found on the next page in section 4.2.4.
- Check that your chart is the latest edition (NtM listed are for the latest edition only).
- Check that the last NtM listed, (circled in diagram on next page, on the right hand side) matches with the last NtM applied to your chart. In this example the last correction is 704 which is also the last NtM for the chart. If the number does not match then the notices not listed on your chart have to be applied.
- If your chart requires significant NtM updates, it may be easier to order a replacement chart. All AUS and SLB Paper Nautical Charts are printed to include all extant notices up to the previous fortnight.



- Temporary and Preliminary Notices are identified with (t) and (p). There is one (t) notice in this example, 74 (t) 2015.

Chart details for Aus 66


### CHART DETAILS FOR AUS66

Chart Number	Aus66
Title	Australia West Coast - Western Australia - Barrow Island - Town Point
Geog Location	Australia
North Lat	20 47.20 S
South Lat	20 50.74 S
East Long	115 33.67 E
West Long	115 27.22 E
Scale	1:10000
Projection	universal transverse mercator
Pub Date	22-Nov-2011
Edition Date	30-Jan-2015

### OTHER INFORMATION

For pricing and purchasing information on the above charts, please refer to our [Pricing Section](#) and [Distribution Agents](#) on this website.

### CHART IMAGE



### NOTICES TO MARINERS

2016	704 99 387 346
2015	1289 1232 924 617 616 526 121
	74

Notice numbers that are superscripted indicate the following:

- t Temporary Notice
- tc Temporary Cancellation Notice
- p Preliminary Notice
- pc Preliminary Cancellation Notice







Current edition date

Last NtM for the chart and also the last correction applied to the chart

Temporary Notice

#### 4.2.4 Accessing Notices to Mariners via the Australian Chart Index

- The content of Australian NtM is also available online via the ACI. This directly links the current edition of each chart with a list of all notices affecting the chart, then takes a user direct to the content of each notice affecting that chart.
- To access updates via the ACI, select '[Australian Chart Index](#)', then select '[Paper Chart List](#)' and scroll down to the chart that matches the one of interest.

<div style="display: flex; justify-content: space-between; align-items: center;"> <div>  <div> <b>Australian Government</b>            Department of Defence         </div> </div> <div>           Minister   Navy   Army   Air Force   Department         </div> <div>  <div> <b>AUSTRALIAN HYDROGRAPHIC SERVICE</b> </div> </div> </div>					
<div style="display: flex; justify-content: space-between; align-items: center;"> <div>            ABOUT US         </div> <div>            PRODUCTS &amp; SERVICES         </div> <div>            FACT SHEETS         </div> <div>            CONTACT US         </div> <div> <input type="text" value="Search..."/> </div> </div>					
Index of Australian Paper Charts					
...as at: 12-Aug-2016, NtM 16/2016					
Chart No.	Title	Scale	Current Edition	Latest Permanent Notice Applied	Details
Aus4	Australia North Coast - Queensland - Approaches to Weipa	1:75000	2012-11-16	550/2016	<a href="#">view</a>
	Port of Weipa	1:15000			<a href="#">view</a>
Aus6	Australia North Coast - Queensland - Approaches to Karumba	1:25000	2000-05-12	688/2013	<a href="#">view</a>
	Norman River	1:25000			<a href="#">view</a>
	Karumba	1:15000			<a href="#">view</a>

- By selecting 'View' as circled on previous page, it is then possible to access chart details and a list of active links to every notice affecting the current edition of the selected chart.

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[FACT SHEETS](#)
[CONTACT US](#)

### CHART DETAILS FOR AUS4

Chart Number	Aus4
Title	Australia North Coast - Queensland - Approaches to Weipa
Geog Location	Australia
North Lat	12 24.91 S
South Lat	12 52.03 S
East Long	141 54.13 E
West Long	141 27.07 E
Scale	1:75000
Projection	mercator
Pub Date	03-Oct-1973
Edition Date	16-Nov-2012

### OTHER INFORMATION

For pricing and purchasing information on the above charts, please refer to our [Pricing Section](#) and [Distribution Agents](#) on this website.

### CHART IMAGE

### NOTICES TO MARINERS

2016	540 542 300 <sup>t</sup> 207 <sup>t</sup>
2014	1222 1221 902
2013	687 33

Notice numbers that are superscripted indicate the following:

- <sup>t</sup> Temporary Notice
- <sup>tc</sup> Temporary Cancellation Notice
- <sup>p</sup> Preliminary Notice
- <sup>pc</sup> Preliminary Cancellation Notice

- Selecting any one of these links then opens the relevant notice, including Permanent , Temporary, Preliminary and Block corrections. NtM 542/2016 is selected above and displayed below.

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## Notices to Mariners for Aus4, Year 2016

**542\* AUSTRALIA - QUEENSLAND - Weipa** South Channel - Nav aids.

Maritime Safety Queensland Notice 220/2016, 232/2016 (SIRF2016004123, SIRF2016004302)

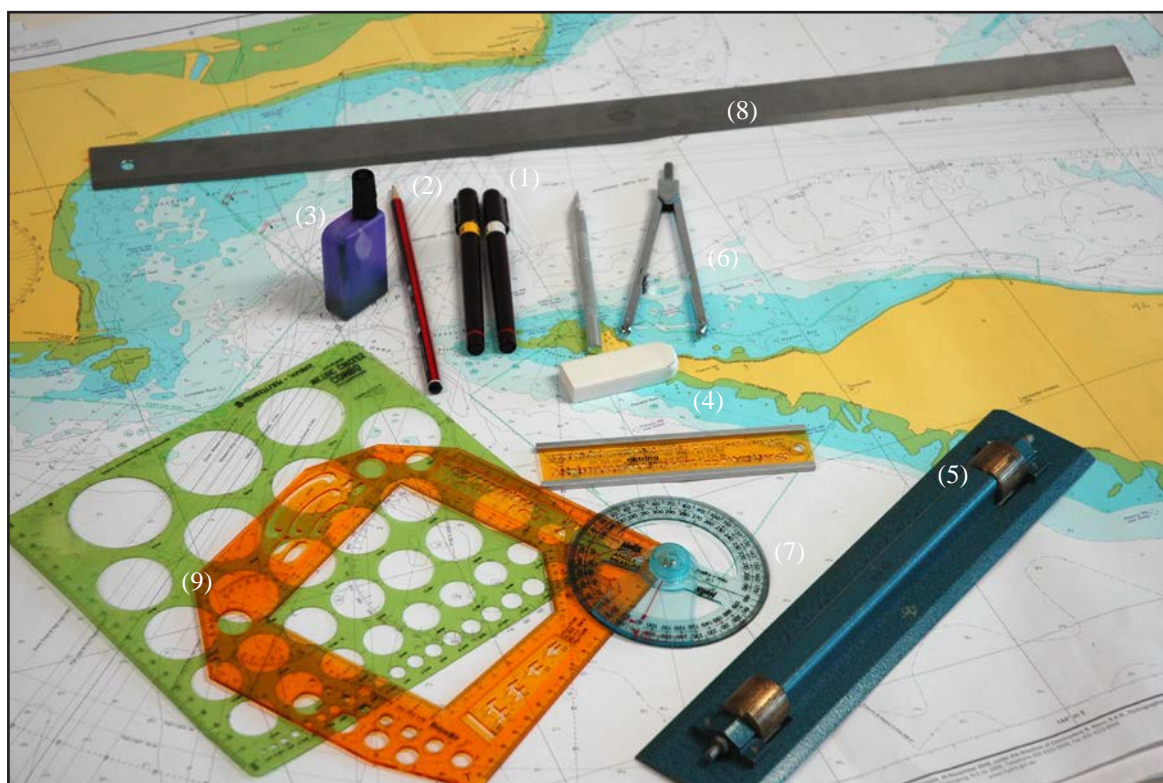
Aus4 [1222/2014]  
 Amend , light beacon to VQ.R SC24 12° 40.160 S 141° 49.740 E  
 Move , light buoy 12° 41.300 S 141° 41.100 E  
 , to 12° 41.260 S 141° 41.010 E

Aus4 (plan: Port of Weipa) [1222/2014]  
 Amend , light beacon to VQ.R SC24 12° 40.160 S 141° 49.740 E

### 4.2.5 Equipment required to update paper charts

1. It is important to have the right tools when correcting paper charts and publications. The following stationery items are recommended and can be purchased at any good stationery stores:

- Technical pens <sup>(1)</sup> 1 x 0.18mm and 1 x 0.25mm (nib size) or very fine fibre tipped pen
- Pencils <sup>(2)</sup> 2B and a hard pencil (7H) - a hard pencil will precisely plot a point
- Ink Colour <sup>(3)</sup> violet / magenta, dark blue or black (not red)
- Eraser <sup>(4)</sup> soft
- Adhesive to glue blocks and notes on paper charts
- Parallel rule <sup>(5)</sup> for plotting updates on paper charts
- Dividers <sup>(6)</sup> for accurate positioning
- Hacksaw blade a tool for drawing the symbol for a cable (2.5 blade)
- Compass <sup>(7)</sup> there is a requirement to draw circles or sectors
- Straight edge <sup>(8)</sup> 1 metre in length - good tool for plotting a position on a paper chart
- Templates <sup>(9)</sup> various sizes - to help create perfect shapes





## 4.3 Measurement Conversion Table

Unit	Is Equal To
1 nautical mile	1852 metres
1 nautical mile	1 minute of latitude
1 knot	1 nautical mile per hour
1 cable	one tenth of a nautical mile or 608 feet (200 yards)
1 metre	approx 3.3 feet
1 fathom	1.8288 metres
1 fathom	six feet / 2 yards

## 4.4 Applying Corrections to Paper Nautical Charts

### 4.4.1 Tracings

1. Tracings are to assist in the correction of charts. The tracing is a pictorial representation of the printed NtM. They are supplied with each edition of NtM. They are not to be used blindly to correct charts; the notice should always be consulted first.
2. It is recommended that tracings be printed on premium grade A4 tracing paper 110 - 115gsm. If tracing paper is unavailable, white paper less than or equal to 70gsm is sufficient.

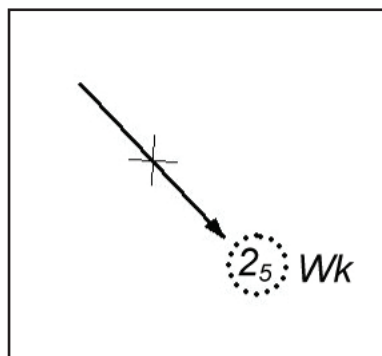
### 4.4.2 Terms used in Notices to Mariners and symbols on tracings

1. There are five main commands in Australian NtM. These are:

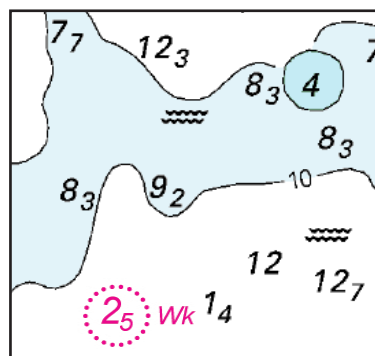
#### Insert

2. Insert is used when new data is added to a chart. Features are to be inserted on the position given but if this is not practicable, a  $\odot$  symbol (fixed point) is to be used and the original symbol can then be inserted elsewhere with an arrow indicating its true position. This procedure can also be used for minor movement of symbols but the arrow in both cases should not exceed a maximum length of 3 to 5cm.
3. Tracing Symbol: The Insert symbol on a tracing is an arrow with a cross. The arrow is pointing to the position of the feature. When correcting the chart, the arrow and cross are not transferred onto the chart.

Tracing example



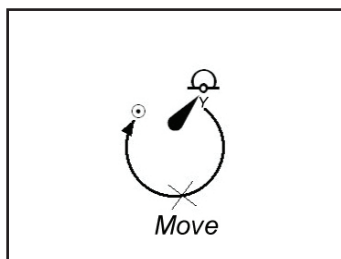
Correction on a chart



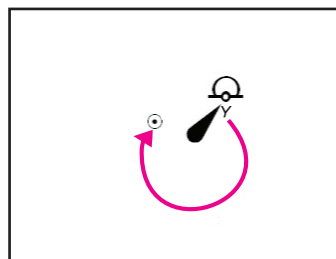
## Move

4. Move is used when a position has changed but not the feature's characteristic.
5. Tracing Symbol: The move symbol on a tracing is an insert arrow with the word 'move' around the outside. The cross on the arrow and the word 'move' is not placed on the chart. See example below.

Tracing example



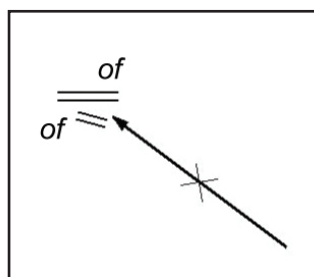
Correction on a chart



## Delete

6. Delete is used when a feature is to be removed from the chart.
7. Tracing Symbol: The delete command is indicated by an 'Of' symbol. A deletion is also marked as a double strike through over the feature. The delete symbol is not transferred to the chart.

Tracing example



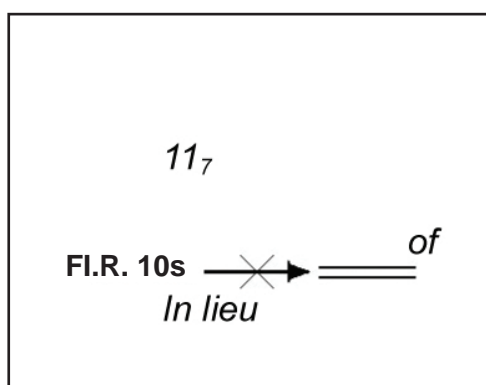
Correction on a chart



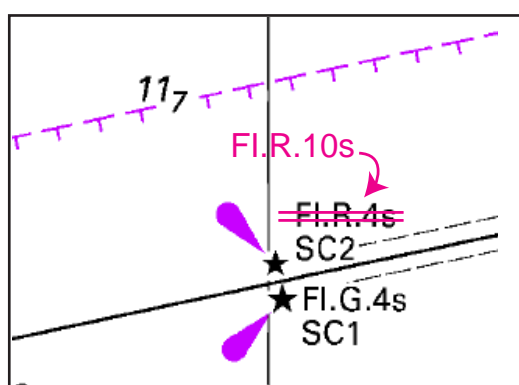
## Amend

8. Amend is used when a feature needs to be amended e.g. a characteristic of a navigation light has changed, but the position of the light remains the same.
9. Tracing Symbol: The word "in lieu" is used along with an insert arrow and in most cases a deletion will accompany the amend command. The cross on the arrow and the words 'in lieu' are not placed on the chart.

Tracing example



Correction on a chart

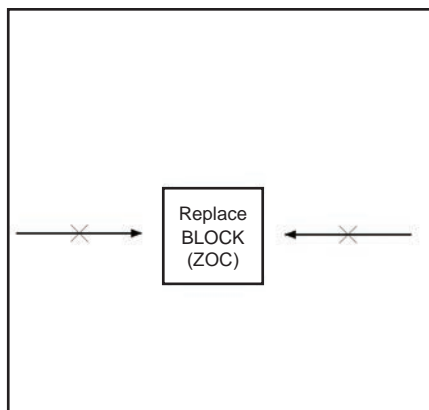




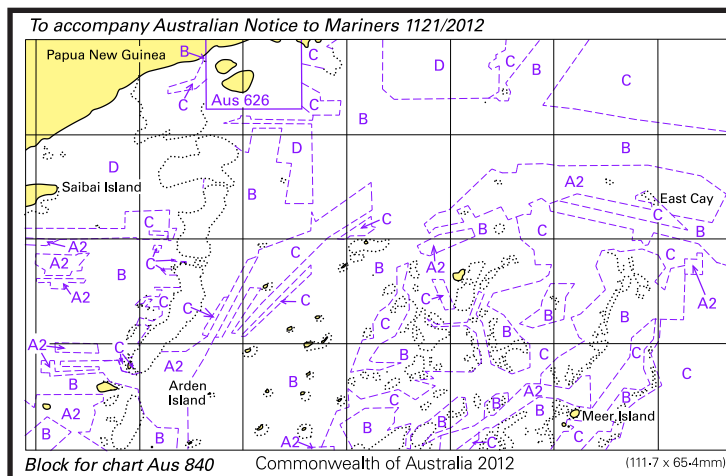
## Replace

10. Replace is used when a feature replaces an existing feature and position hasn't been altered.
11. Tracing Symbol: The word "replace" is written inside a box with insert arrows indicating the position on the chart. In the example below, simply align the position of the block on the chart and paste directly onto the chart.

Tracing example



Correction on a chart



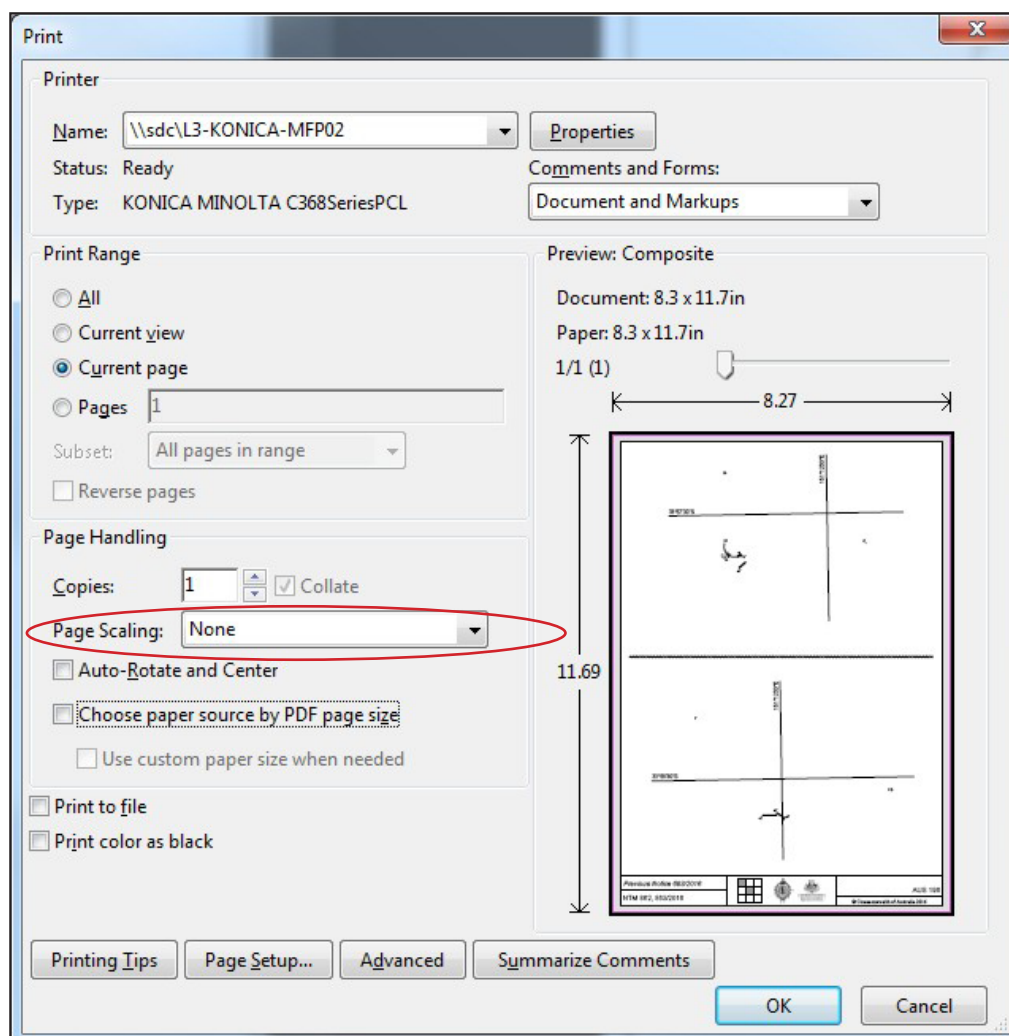
### 4.4.3 Temporary and Preliminary notices

1. Temporary and Preliminary notices are plotted using a 2B pencil in the general area affected with a cross to indicate the position of the object. If an area is given, the boundary may be plotted using a dashed line. A box containing the notice number and brief details of the notice is to be plotted in a convenient place clear of any other information and this is connected to the position or area by an arrow.
2. When a Temporary or Preliminary correction is completed the number of the correction is to be inserted at the top left hand corner of the chart indicating its completion on the chart.
3. It is recommended that a Temporary and Preliminary Log be maintained. See Chapter 6 for details.
4. Details of Temporary and Preliminary notices applied to the current edition of each chart can be identified and obtained via the [Australian Chart Index](#) (ACI) on the AHS website.
5. Download and print Section IV "Temporary and Preliminary Notices in Force". This should be accessible by navigation staff for those occasions when the brief details marked on the chart may not be sufficient. Replace this printed copy with the latest edition each fortnight.

### 4.4.4 Important points to remember when applying a correction to a paper chart

- check NtM every fortnight
- by subscribing to eNotices, updates for your portfolio of AUS and SLB paper charts will be sent automatically via email
- all notices are considered critical for safe navigation, corrections must be completed as soon as possible to a high standard
- if several charts are affected by a NtM, the largest scale charts should be corrected first
- positions must be plotted precisely and corrections must be written clearly and away from other features on a chart

- do not use red pen to correct charts, red light could be used on the bridge of a ship at night, rendering any red text or linework invisible
- do not solely rely on tracings to update charts; tracings should be used in conjunction with NtM
- always remove the black border from the block before pasting it onto the chart
- if glue is used it should be applied to the chart not to the block; this reduces the possibility of distortion on the block
- charts that are not maintained are to be clearly marked "NOT TO BE USED FOR NAVIGATION"
- always hold the current edition - archive or destroy old editions to avoid confusion
- the NtM number is to be inserted at the bottom left hand corner on completion of correction - first correction for the year, the year is to be recorded before the number
- it is recommended that a chart correction log is maintained to record the corrections applied to charts
- always check your corrections
- check Temporary and Preliminary Notices in Force and Cumulative Lists on a regular basis
- complete an audit of corrections every six months
- when printing NtM accompanying blocks / pages always select 'no page scaling', see diagram on page below
- Temporary and Preliminary Notices are included in the eNotice service



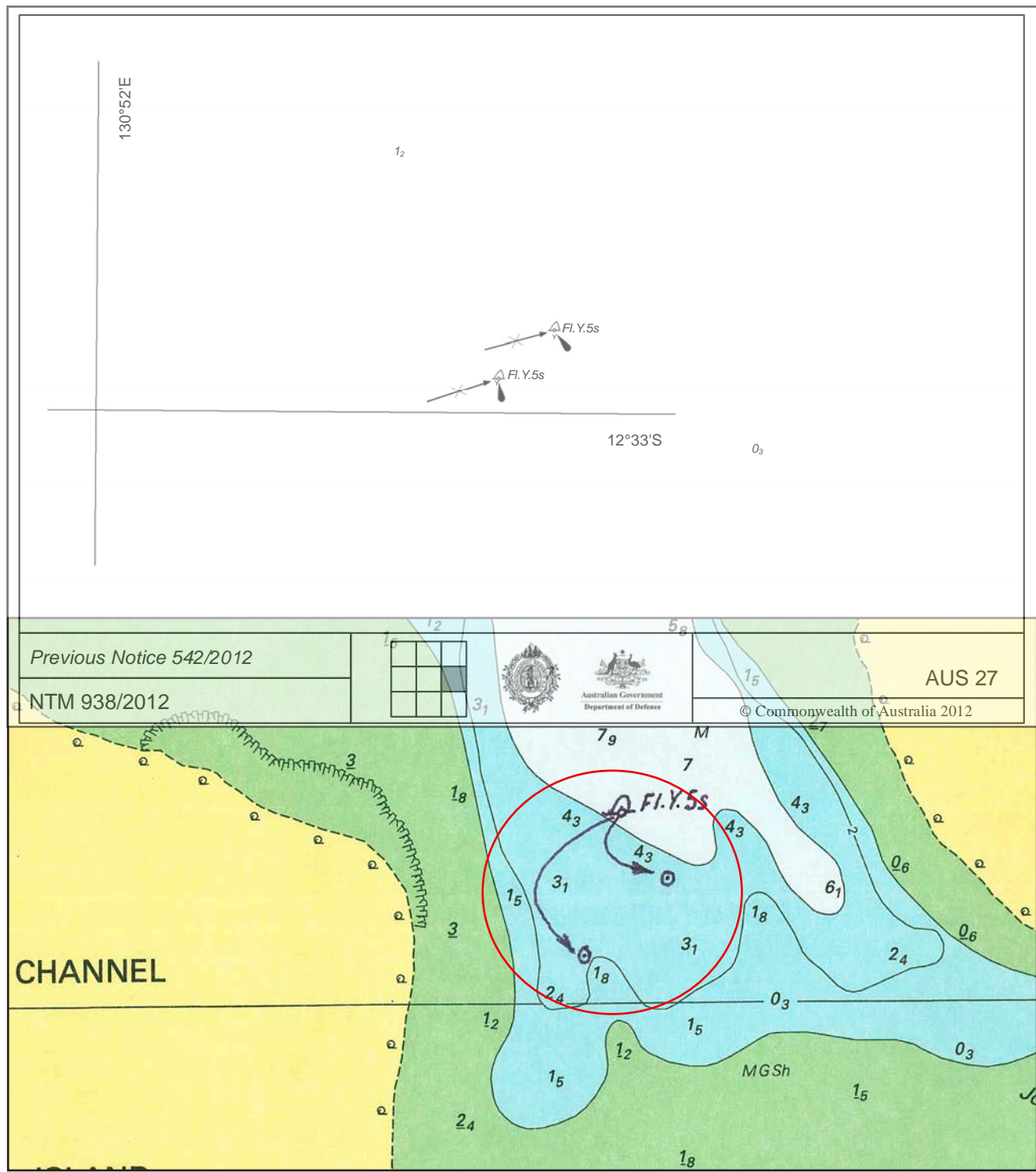
## 4.5 Chart Correction Examples

### 4.5.1 Inserting a navigation aid

938\* AUSTRALIA - NORTHERN TERRITORY - Darwin - Lee Point to Channel Island - Light buoys (continued)

Aus 27 [542/2012]

Insert	special conical light buoy, <i>Fl. Y. 5s</i> , without topmark	12° 32'.962 S	130° 52'.442 E
	special conical light buoy, <i>Fl. Y. 5s</i> , without topmark	12° 32'.910 S	130° 52'.503 E





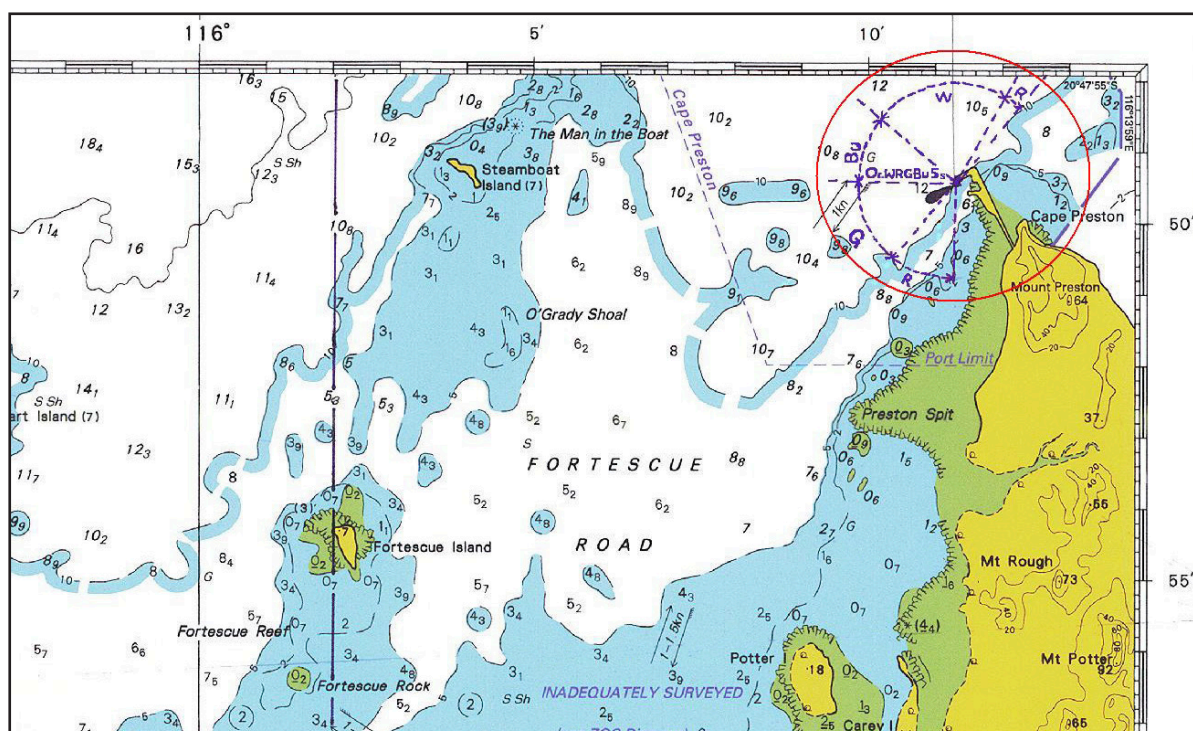
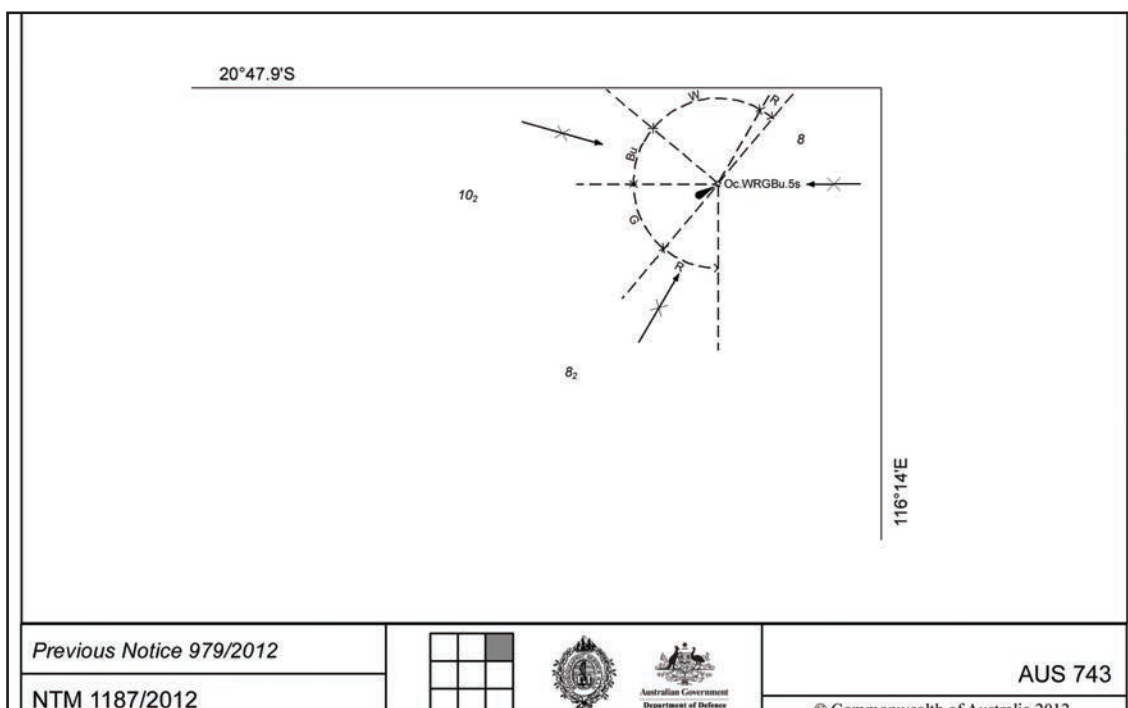
## 4.5.2 Inserting light sectors

**1187\* AUSTRALIA - WESTERN AUSTRALIA - Cape Preston - Light**  
Mineralogy Pty Ltd (AA630294 - AA630296)

**Aus 743 [979/2012]**

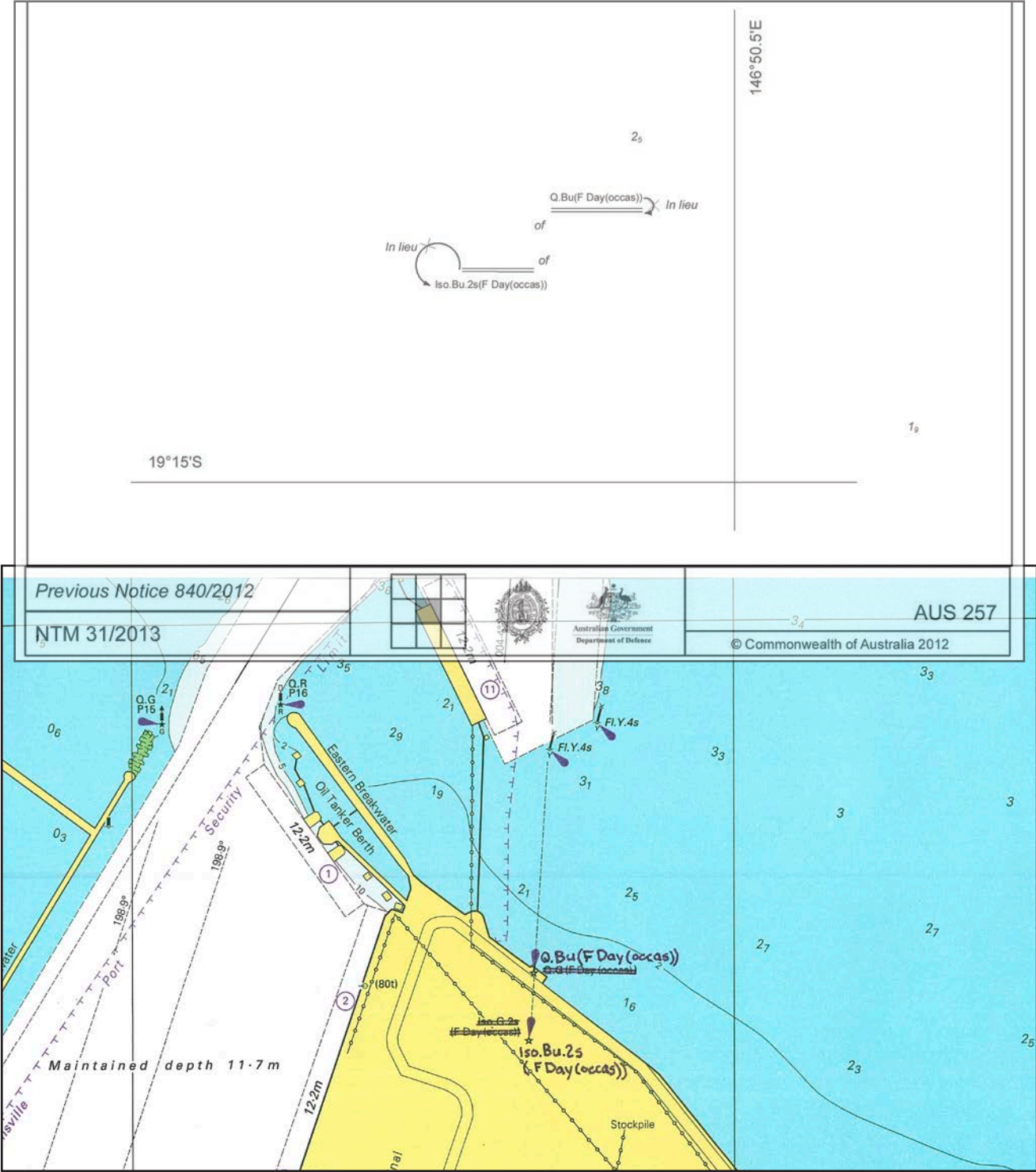
Insert light, Oc.WRGBu.5s with sectors:  
red 000° - 040° (40°)  
green 040° - 090° (50°)  
blue 090° - 130° (40°)  
white 130° - 210° (80°)  
red 210° - 220° (10°)

20° 49'.40 S 116° 11'.32 E



4.5.3 Amend a light characteristic

<b>31* AUSTRALIA - QUEENSLAND - Townsville - Lights</b> Maritime Safety Queensland Notice 1306/2012 (AA642641)			
<b>Aus 256</b> [1119/2012]			
Amend	light to <i>Ldg Iso.Bu</i> & <i>Q.Bu</i> ( <i>F Day</i> ( <i>occas</i> ))	19° 14'.8 S	146° 50'.3 E
<b>Aus 257</b> [840/2012]			
Amend	light to <i>Q.Bu</i> ( <i>F Day</i> ( <i>occas</i> ))	19° 14'.78 S	146° 50'.33 E
	light to <i>Iso.Bu.2s</i> ( <i>F Day</i> ( <i>occas</i> ))	19° 14'.83 S	146° 50'.33 E





## 4.5.4 Substitutions

### 377\* AUSTRALIA - QUEENSLAND - Fahey Reef - Light; beacon

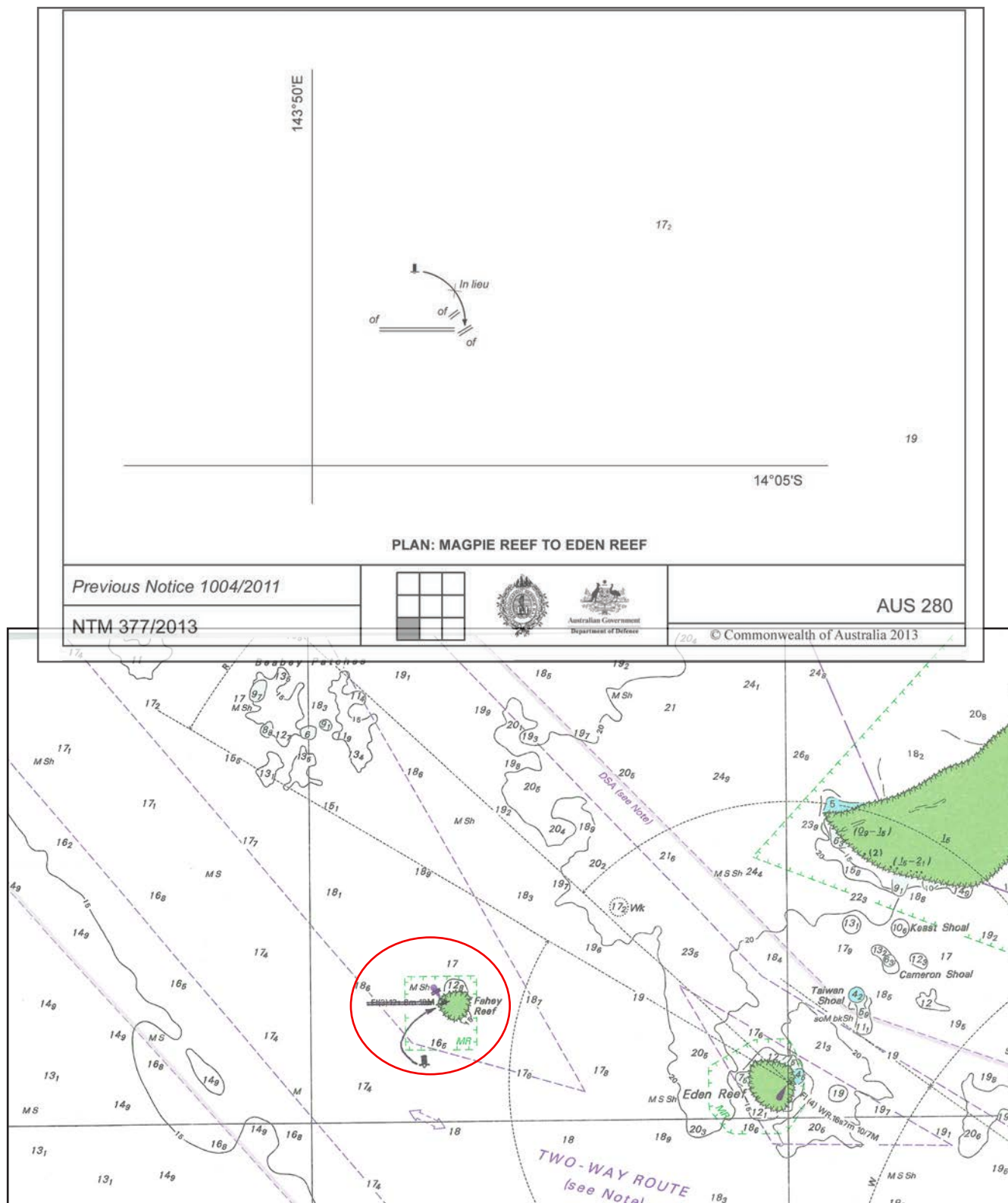
Australian Maritime Safety Authority ATH 4/2013 (AA664615), Australian Maritime Safety Authority Auscoast Warning 98/2013 (AA664321)

### Aus 280 (plan, Magpie Reef to Eden Reef) [1004/2011]

Substitute beacon for light

14° 03'.8 S

143° 51'.4 E



## 4.6 Symbols Used on Paper Nautical Charts

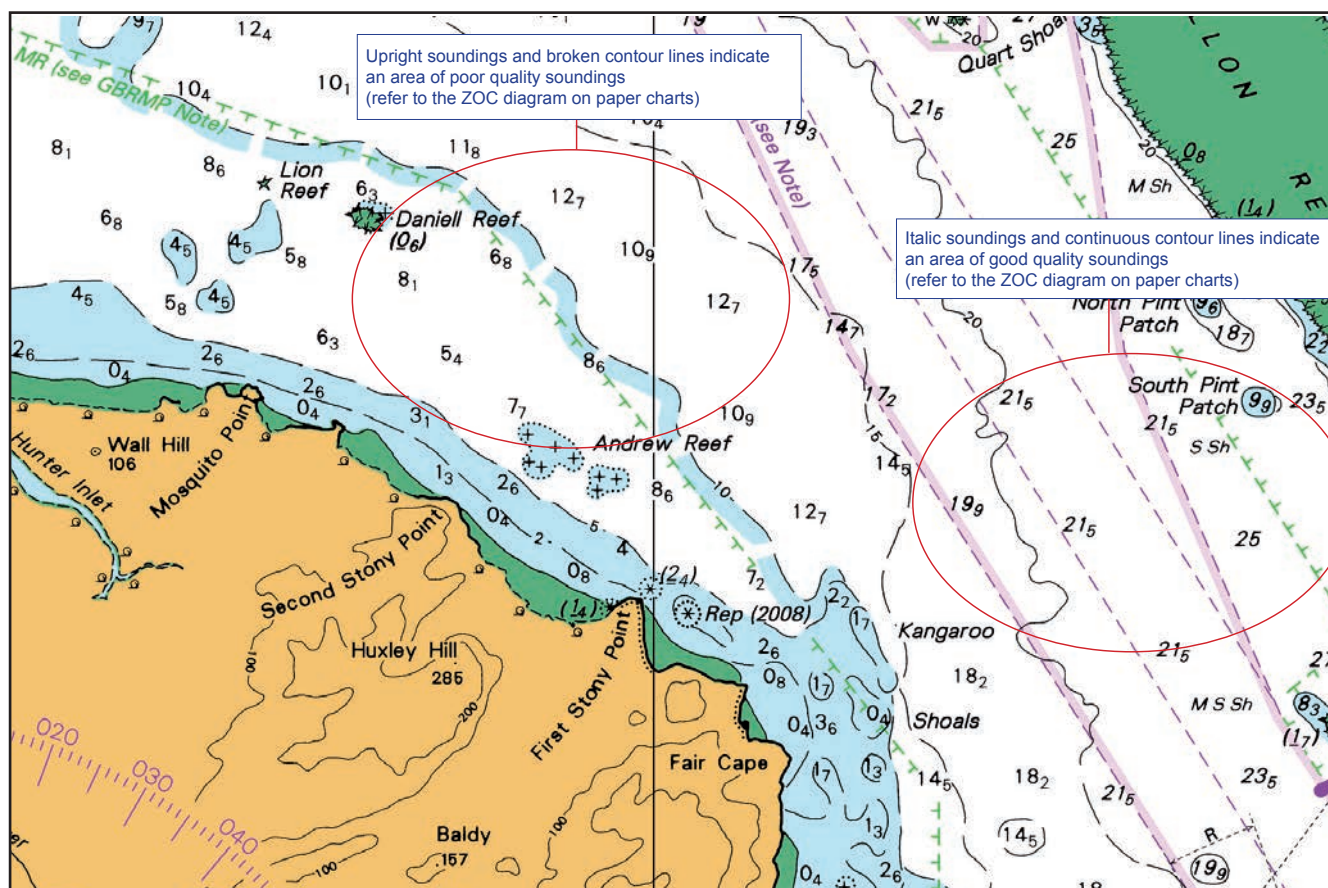
- The standard symbols used on paper charts can be found in the following publication:
  - British Admiralty Publication - NP5011 Symbols and Abbreviations used on Admiralty Charts
- The following symbology may still exist in AUS and SLB paper nautical charts but has been removed from NP5011:

INT 1 Reference	Description	Symbol
D 17b	Helicopter Landing Site	
J 21	Approximate Rock Reef	
J 21	Rock Symbol	
J 22	Approximate Coral Reef	
J 22	Areas Considered to be Coral Reef	
J 22	Areas of possible shoaling	
J 22	Coral Pinnacle	
L 17	Moored Storage Tanker	
M	Preferred Route	
M 28.2	Two-way Route direction arrow	
U 3	Visitors Mooring	
N	Ship Reporting System	
	Virtual Aids to Navigation	

- The following maritime boundaries have been adopted into NP5011. Their depiction on Australian Paper Nautical Charts is shown below:

NP 5011 Reference	Description	Depicted on Chart
N 22	Particularly Sensitive Sea Area	<i>PSSA (see GBRMP Note)</i> 
N 22	Great Barrier Reef Marine Park High Restriction Areas	<i>MR (see GBRMP Note)</i> 
N 22	Great Barrier Reef Marine Park	<i>GBRMP (see Note)</i> 
N 22	Environmentally Sensitive Sea Area	<i>ESSA (see Note)</i> 
N	Designated Shipping Area	<i>DSA (see Note)</i> 

## Common Survey Accuracy Indicators



ZOC diagram from paper chart

ZOC CATEGORIES			
(For details see Seafarers Handbook for Australian Waters AHP 20)			
ZOC	POSITION ACCURACY	DEPTH ACCURACY	SEAFLOOR COVERAGE
A1	±5m	=0.50m + 1%d	Significant seafloor features detected
A2	±20m	=1.00m + 2%d	Significant seafloor features detected
B	±50m	=1.00m + 2%d	Uncharted features hazardous to surface navigation are not expected but may exist
C	±500m	=2.00m + 5%d	Depth anomalies may be expected
D	Worse than ZOC C	Worse than ZOC C	Large depth anomalies may be expected
U	Unassessed - The quality of the bathymetric data has yet to be assessed.		



**Chart Annotations:**

- Radio reporting point showing direction of vessel movement (see Note)
- Compulsory Pilotage (see Note)
- Rock that covers and uncovers
- Underwater rock - depth unknown
- Flood tide stream with a rate of 1 knot
- Height of island is 33 metres - brackets indicate off position
- Overfalls tide rips
- Ebb tide stream with a rate of 2 knots
- Rock bottom
- Submarine power cable
- Unsurveyed area - depths unknown
- Height of the peak - 256 metres and position of summit
- Isolated danger beacon with light - flashing 2 every 6 seconds
- Mud and shell bottom
- Anchorage Area
- Beacon with light - single green flash every 2 seconds
- Mangroves
- Eddies - (swirling water)
- Designated Shipping Area certain commercial vessel must navigate within these limits
- Marine Reserve - legislative restrictions apply to access
- Depth at chart datum is 30.5 metres
- 10, 15 and 20 metre depth contours

Heights in metres above datum	
HAT	MLWS
4-3	1-9
5-3	2-4
6-0	2-8
5-6	1-6

Not to be used for navigation

Height	Heights in metres above datum				
	HAT	MHWs	MHWN	MSL	MLWN
47'	4.3	3.3	2.5	1.9	1.2
33	5.3	4.2	3.3	2.4	1.6
27	6.0	5.0	3.7	2.8	1.9
14	5.6	4.6	3.5	2.6	1.6

Not to be used for navigation







## Chapter 5) NAUTICAL PUBLICATIONS

### 5.1 Introduction

1. Hydrographic services under the *International Convention for the Safety of Life at Sea* (SOLAS) Chapter V have an obligation to provide adequate up to date nautical publications for the purpose of safe navigation. Corrections to nautical publications are promulgated in Notices to Mariners (NtM).
2. New editions of nautical publications are also advised in NtM. The old edition and any subsequent corrections to the new edition should be held until the replacement volume is received and corrected.

### 5.2 Carriage Requirements

3. Mariners are to refer to [SOLAS](#) Chapter V - Regulation 27 and Australian Maritime Safety Authority (AMSA) [Marine Order 27](#). Marine Order 21 paragraph 26 states:

*"In accordance with Regulation 27 of Chapter V of SOLAS, 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, must be adequate and up to date. Electronic versions of nautical publications, such as the above can be carried as an alternative to hard copy nautical publications, however, such electronic nautical publications must be adequate for the intended voyage and up to date.*

*Note: Electronic versions of nautical publications should be:*

- (a) officially issued by an administration, authorised hydrographic office, or other relevant approved organization; and*
- (b) accessible using a dedicated computer located on the bridge which is available at all times to the Officer of the Watch, and which is connected to the ship's main and emergency power supplies; and*
- (c) available either:*
  - (i) on at least one other back up computer that can be made available to the Officer of the Watch within 5 minutes; or*
  - (ii) as up to date paper printouts of relevant nautical publications.*

*In addition, all digital software and hardware used for accessing official electronic versions of nautical publications shall comply with the recommendations of MSC/Circ.891 Guidelines for the onboard use and application of computers."*

4. Additionally, Marine Notice 17/2014 (Sound navigational practices), states:

*"In addition to onboard 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 AHP20 is considered necessary for safe navigation in Australian waters."*
5. AHP20, otherwise known as the 'Seafarers Handbook for Australian Waters', includes relevant information required by foreign flagged and Australian ships operating in Australian waters to comply with requirements of SOLAS, International Convention for the Prevention of Pollution from Ships (MARPOL) and National Standard for Commercial Vessels (NSCV) regulations.

### 5.2.1 Recommended Nautical Publications

- The following list of publications is strongly recommended for the Australian Charting Area:

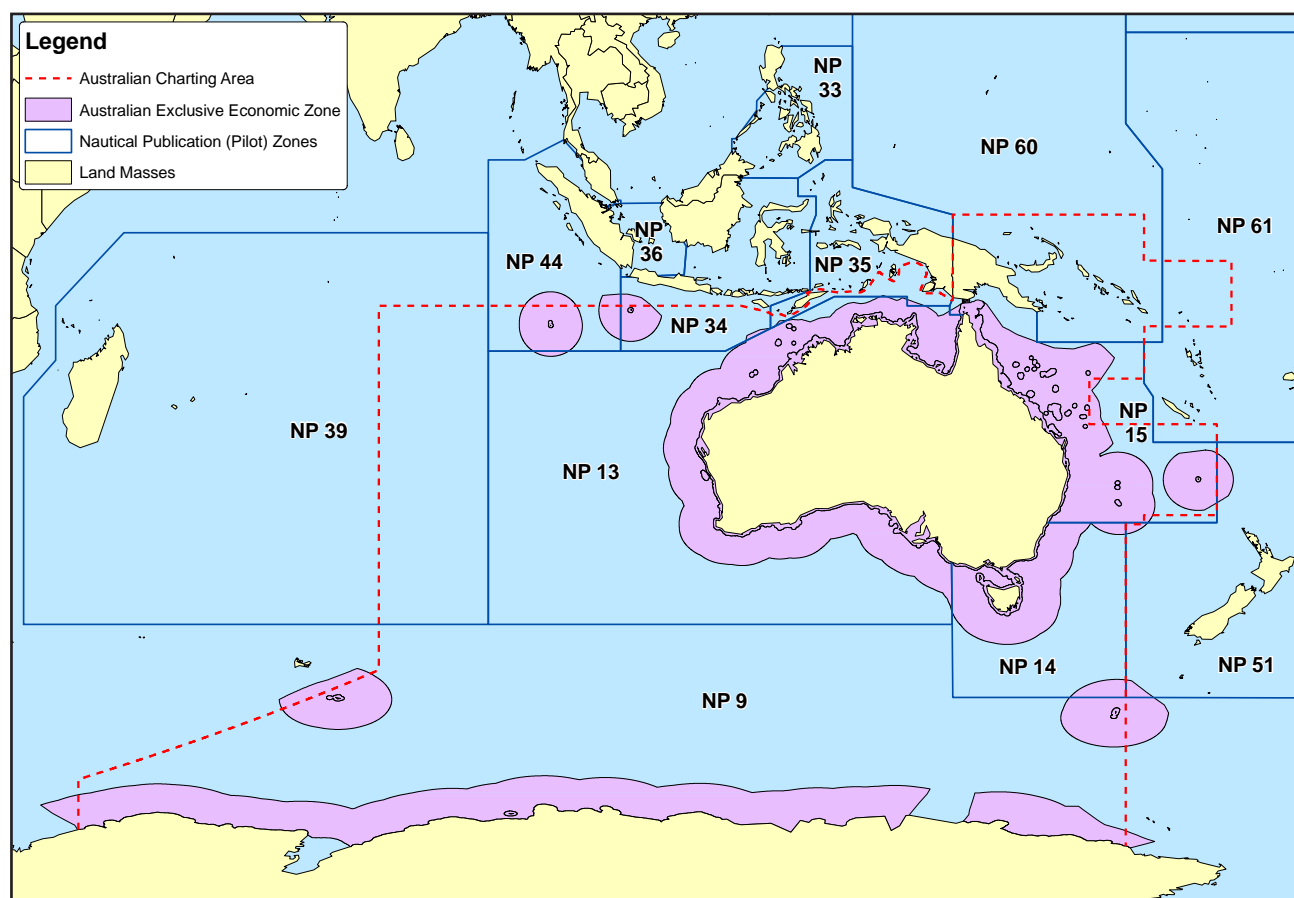
Australian Nautical Publications		
Publication Number	Publication Title	
AHP11	Australian National Tide Tables or AusTides (AHP114)	Printed only (Aus Tides CD-ROM)
AHP18	Australian Fortnightly Notices to Mariners	AHS download
AHP20	Seafarers Handbook for Australian Waters	Printed only
AHP24	Australian Chart and Publication Maintenance Handbook	AHS download

- Australian information is incorporated into a number of publications within the Admiralty World-Wide series.

British Admiralty Publications		
Admiralty Sailing Directions		
NP9	Antarctic Pilot	Printed, e-NP
NP13	Australia Pilot Volume I	Printed, e-NP
NP14	Australia Pilot Volume II	Printed, e-NP
NP15	Australia Pilot Volume III	Printed, e-NP
NP60	Pacific Islands Pilot Volume I	Printed, e-NP
NP61	Pacific Islands Pilot Volume 2	Printed, e-NP
Admiralty List of Lights and Fog Signals		
NP83	Admiralty List of Lights Volume K	Printed, ADP
Admiralty List of Radio Signals		
NP281 (2)	Maritime Radio Stations	Printed, ADP
NP282	Radio Aids to Navigation, Satellite Navigation Systems, Legal Time, Radio Time Signals and Electronic Position Fixing Systems	Printed, ADP
NP283 (2)	Maritime Safety Information Services	Printed, ADP
NP285	Global Maritime Distress and Safety System (GMDSS)	Printed, ADP
NP286 (4)	Pilot Services, Vessel Traffic Services and Port Operations	Printed, ADP
Miscellaneous Admiralty Publications		
NP231	Admiralty Guide to the Practical Use of ENCs	Printed, e-NP
NP314	The Nautical Almanac	Printed, e-NP
NP401 (1 - 4)	Sight Reduction Tables for Marine Navigation	Printed
NP735	IALA Maritime Buoyage System	Printed, e-NP
NP5011	Admiralty Symbols and Abbreviations - List of Symbols, Abbreviations and Terms used on Charts	Printed, e-NP
NP5012	Admiralty Guide to ENC Symbols used in ECDIS	Printed, e-NP

- Note: Admiralty Digital Publications (ADP), Admiralty electronic Nautical Publications (e-NP).

Admiralty Sailing Directions boundaries / Australian Charting Area



## 5.3 Australian Nautical Publications

### 5.3.1 Australian Fortnightly Notices to Mariners (AHP18)

1. Australian Notices to Mariners (NtM) are published fortnightly. This publication is described in more detail in Chapter 3. NtM are free to download in PDF and printed copies are available from Australian Hydrographic Service (AHS) distribution agents offering a 'Paper Notices to Mariners' service.

### 5.3.2 Australian National Tide Tables (AHP11)

1. [The Australian National Tide Tables](#) (ANTT, otherwise known as AHP11) contains information for over 80 Primary (Standard) ports and over 680 Secondary ports in Australia, Papua New Guinea (PNG), Solomon Islands, Antarctica and Timor-Leste. This information includes but is not limited to:
  - predictions for high and low water for each day of the year for over 80 Standard Ports
  - predictions of maximum rates of tidal streams for Torres Strait and Port Phillip Heads
  - tidal stream diagrams for Sydney, Broome and Darwin
  - list of the main 22 harmonic constituents for all Standard and Secondary Ports
  - tidal levels and time difference for all Secondary Ports in relation to the relevant Standard Port
2. The ANTT is printed annually. The planned release date is October each year for the following year. The ANTT can be purchased from your local [AHS Chart Distribution Agent](#).
3. The ANTT is updated via NtM. The relevant notices can be found in Section I of NtM or accessed automatically, via eNotices.

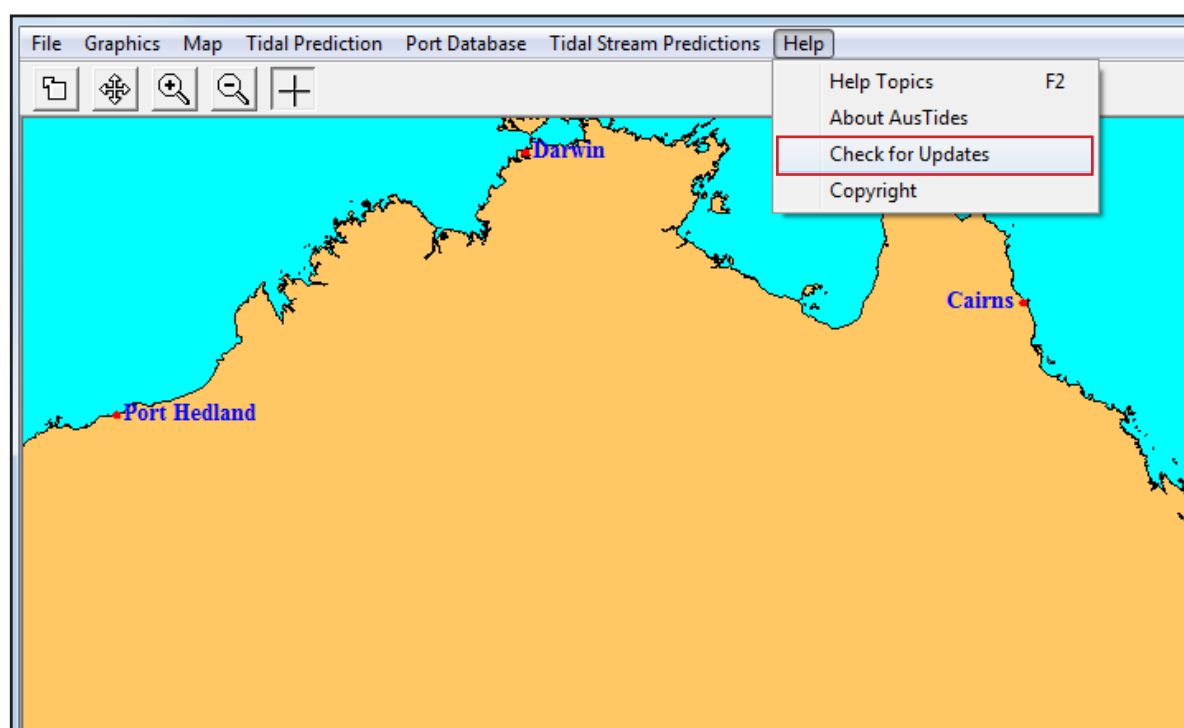
### 5.3.3 AusTides (AHP114)

1. AusTides is an official electronic product that is equivalent to the ANTT but has the following benefits over paper tide tables:
  - predictions for secondary ports are calculated for you giving you immediate access to predictions for over 680 ports within Australia, PNG, Solomon Islands, Antarctica and Timor-Leste
  - predictions for high and low water and intermediate heights and times are presented graphically as a tidal curve at 10, 20, 30 and 60 minute intervals for each port for every day in the year
  - calculated predictions are more accurate because they use harmonic constants
  - updates are applied automatically saving you time
  - they sell at a lower recommended retail price and site licences are also available
2. AusTides is available on CD. They are released annually in October and provide tidal predictions for the year of release and the following calendar year. They can be purchased from AHS Distribution Agents.

#### Updating AusTides

3. NtM will be issued when an update is available for AusTides. AusTides updates are cumulative, that is, each sequential update will contain all previous updates released for the AusTides edition.
4. Updates and instructions for their installation can be found at in the help menu of AusTides as shown in the following image.

AusTides



5. The updates and instructions can also be downloaded directly from the AHS website via the link below.

Website:	<a href="http://www.hydro.gov.au/prodserve/publications/ausTides/tides-patches.htm">www.hydro.gov.au/prodserve/publications/ausTides/tides-patches.htm</a>
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AusTides Updates page

## AusTides Updates

### AUSTIDES 2016

AusTides 2016 version 1.11.2 – no update required

AusTides 2016 version 1.11.1  
Update 1, 11 October 2016

For Windows XP or earlier:  
Please download [AusTides\\_2016\\_update\\_1XP.zip](#), unzip it, run update installer and follow on screen prompt to complete the installation.

For Windows Vista, 7, 8, 8.1, 10  
Please download [AusTides\\_2016\\_update\\_1W7.zip](#), unzip it, run update installer and follow on screen prompt to complete the installation.

Update 1 includes all updates of ANTT announced via Notices to Mariners up to edition 17 (published on 26 Aug 2016).

Major changes in this update:

(1) Updated "LAT to chart datum corrections" for some standard and secondary ports.

#### 5.3.4 Seafarers Handbook for Australian Waters (AHP20)

1. [The Seafarers Handbook for Australian Waters](#) provides mariners with a description of the Australian physical and jurisdictional environment including Australian regulations and responsible agencies, meteorological broadcasts, ship reporting systems, maritime security, biosecurity, Border Force and immigration information. It combines information from various government agencies under the cover of one nautical publication maintained up to date by NtM. It contains most of the textual information which cannot be shown on nautical charts. The AHS releases a new edition every three years.
2. The Seafarers Handbook for Australian Waters can be purchased from your local [AHS Chart Distribution Agent](#). See [AHS website](#) for further details.

### 5.4 Updating Australian Paper Nautical Publications

#### 5.4.1 Is your Australian nautical publication up to date?

1. All paper publications dispatched from the AHS are uncorrected. This means that your publication at time of purchase may not be up to date. Note: AHS Correcting agents may supply the relevant NtM but this is not guaranteed.
2. NtM for all Australian nautical publications (current editions only) can be found at the following website link:

Website:	<a href="http://www.hydro.gov.au/n2m/notices.htm">www.hydro.gov.au/n2m/notices.htm</a>
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3. To find out if your paper nautical publication is up to date the following steps should be taken:
- Check the record of amendments at the front of the book for any corrections that have been applied manually. The NtM number, year and page number should be recorded. The last notice applied in the example below is 534/16, the last notice listed on the AHS website is 534/16. This publication is current.

Record of Amendments			
2016	2017	2018	2019
534/16			

Australian Hydrographic Service - Australian Noti...

### NOTICES FOR AUSTRALIAN PUBLICATIONS

- Annual Notices to Mariners
  - nil
- Australian National Tide Tables (AHP 11)
  - ANTT 2015:
    - NM Year 2015: ntm 160, ntm 461, ntm 662, ntm 1134
    - NM Year 2014: ntm 947, ntm 1105, ntm 1207
  - ANTT 2014: ntm 28, ntm 438, ntm 671, ntm 717, ntm 806, ntm 843, ntm 947, ntm 1105
- Australian Chart & Publication Maintenance Handbook (AHP 24) (3rd Edition) - Free Download
- Seafarers Handbook for Australian Waters (AHP 20) (4th Edition)
  - 2016 Notices: ntm 534
- AusTides Updates
  - Update 1, Update 2

This notice has already been added to the book

#### 5.4.2 How to apply Notices to Mariners to an Australian nautical publication

- The NtM layout will vary between publications. For example the Seafarers Handbook for Australian Waters notice will reference the page and paragraph numbers. The ANTT notices will only reference page numbers.
- Below are examples of NtM for publications.

Example 1:

<b>193</b>	<b>AUSTRALIA - Product - Amendment to Seafarers Handbook for Australian Waters AHP20</b>
Australian Maritime Safety Authority , Marine and Safety Tasmania , Mid West Ports , Quadrant Energy	
Chapter 9 - pages 173 to 174	
Replace	pages with accompanying block
Chapter 12 – Burnie Pilot Boarding Ground - page 248	
Delete	41° 01.62'S, 145° 57.19'E
Insert	41° 00.0'S, 145° 58.7'E

Example 2:

<b>662</b>	<b>AUSTRALIA - Product - Amendment to Australian National Tide Tables 2015</b>
	Australian Hydrographic Service (AA815365)
ANTT 2015	
Page xxxi	
<i>Amend</i>	Bundaberg To Chart Datum AUS 817 NEC 5 Jun 2015 0.0
Page xxxii	
<i>Amend</i>	Darwin To Chart Datum AUS 26 NE 8 May 2015 SUBTRACT 0.1
	Darwin To Chart Datum AUS 24 NE 8 May 2015 0.0
	Darwin To Chart Datum AUS 27 NE 8 May 2015 0.0
	Darwin To Chart Datum AUS 28 NE 8 May 2015 0.0

3. There are three commands used to update publications:

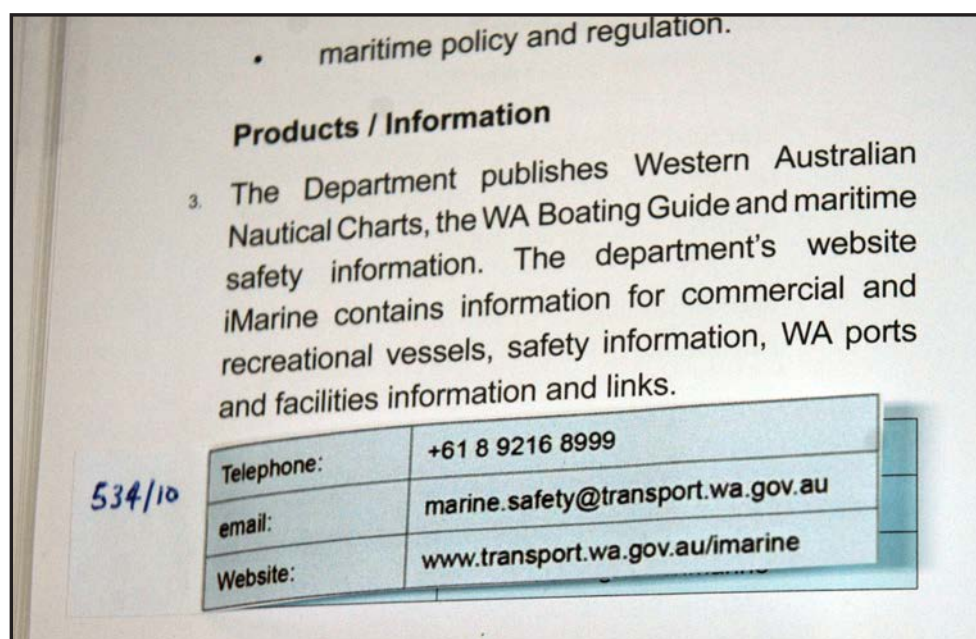
### Insert

4. Insert is used to add new data. It could vary from a small addition or a whole page. Small insertions are indicated with an arrow adjacent to the paragraph / line where the text needs to be added (see example on following page).
5. The insert may be large enough to create a new page. In this case, the page can be glued along the spine of the publication. The notes pages at the end of each chapter can also be utilised.

### Amend / Substitute / Replace

6. These three commands can be used when data needs to change. The amendment can vary from a small correction to a block correction.
7. Small correction: one line is to be used to cross out the text. Neatly add in new text near the deleted text.
8. Block correction: if the correction is too large, a block correction is used. If a whole page is substituted a black line may be placed on the left hand side of the text (where practical) indicating the corrected text - see below.

Example of a Block Correction



## Small correction examples

Black line on the replacement page indicates location of amendment

### 2.4.8 Department of Sustainability, Environment, Water, Population and Communities

1. The Department of Sustainability, Environment, Water Population and Communities (DSEWP&C) advises on, and implements policies and programs for, the protection and conservation of the environment. It encourages conservation and appreciation of natural and cultural heritage and ecologically sustainable management of coastal and marine resources. DSEWP&C is also responsible for administering environmental laws, which provide regulatory arrangements to ensure

147/10  
Page 243 Paragraph 13.9 (1) lines 1 - 4  
Substitute Accompanying block

**Note:** The arrow indicates an insert if the block is too large to paste over the existing text.

### 13.9 Nautical Publications

1. ~~In addition to the Australian Seafarers Handbook,~~ the AHO produces two tide products; the paper Australian National Tide Tables and the Seafarer Tides digital tide tables on CD.

#### 13.9.1 Australian National Tide Tables

1. The Australian National Tide Tables (ANTT) contains information for over 500 ports in Australia, Papua New Guinea, Solomon Islands, Antarctica and East Timor. This information includes, but is not limited to:
  - predictions for high and low water for each day of the year for over 80 Standard Ports
  - predictions of maximum rates of tidal streams for Torres Strait and Port Phillip Heads
  - tidal stream diagrams for Sydney, Broome and Darwin

752/10  
Page 243 Paragraph 13.9.1 (1) line 7  
Delete over 80  
Insert 82

#### 13.9.1 Australian National Tide Tables

1. The Australian National Tide Tables (ANTT) contains information for over 500 ports in Australia, Papua New Guinea, Solomon Islands, Antarctica and East Timor. This information includes, but is not limited to:
  - predictions for high and low water for each day of the year for over 80 Standard Ports
  - predictions of maximum rates of tidal streams for Torres Strait and Port Phillip Heads
  - tidal stream diagrams for Sydney, Broome and Darwin

953/09  
Page 243 Paragraph 13.9.1 (1) after line 10  
Insert Accompanying block

#### 13.9.1 Australian National Tide Tables

1. The Australian National Tide Tables (ANTT) contains information for over 500 ports in Australia, Papua New Guinea, Solomon Islands, Antarctica and East Timor. This information includes, but is not limited to:
  - predictions for high and low water for each day of the year for over 80 Standard Ports
  - predictions of maximum rates of tidal streams for Torres Strait and Port Phillip Heads
  - tidal stream diagrams for Sydney, Broome and Darwin

9. In some circumstances it may not be practical to paste the block onto the page in question. It may not fit over the original text or there may be a requirement to see the old text as well as the new. If this is the case follow the steps in sub-section 5.4.2 (Insert).

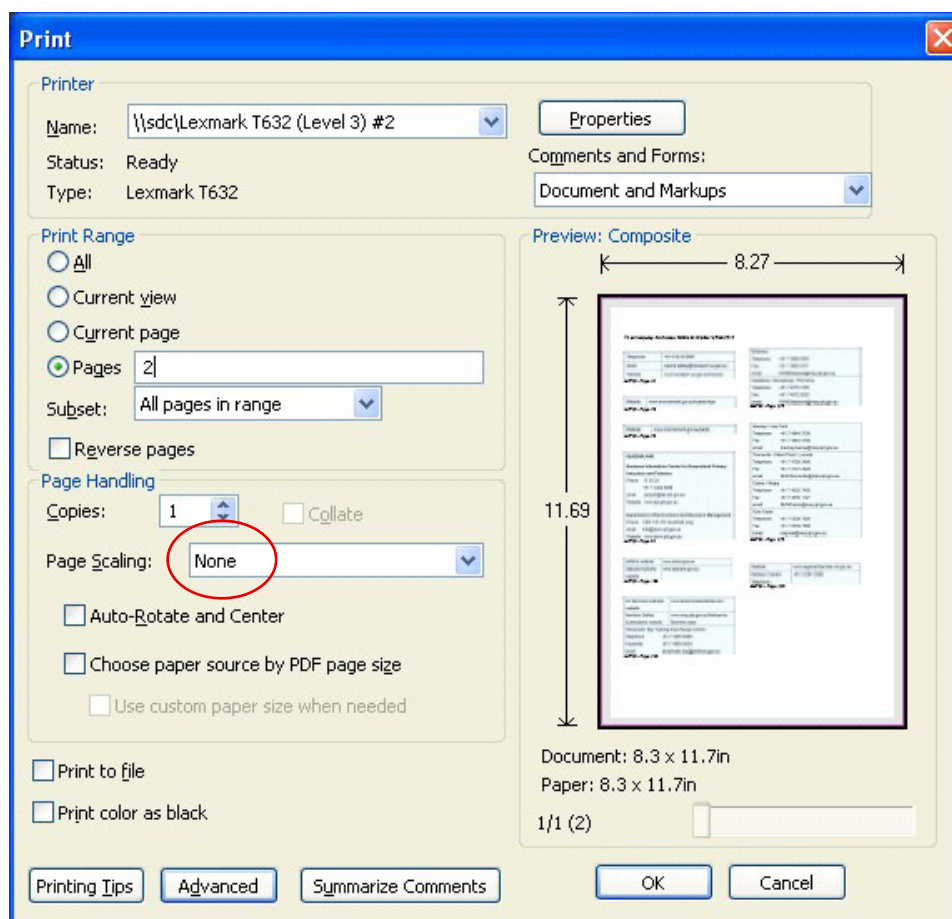
### Delete

10. Delete is often used with the insert command. A strike though indicates a deletion.

### 5.4.3 Important points to remember

1. It is important to keep good records when updating publications. The following steps will ensure your publications are up to date:
  - record the notice number and year adjacent to the correction
  - record the notice number and year in the Record of Amendment Table at the front of the publication
  - check NtM every fortnight
  - always hold the current edition, archive or destroy old editions to avoid confusion
  - complete an audit of corrections every six months. A list of NtM are listed on the AHS website
  - by subscribing to eNotices, updates will be sent automatically via email
2. When printing NtM accompanying blocks / pages always select 'no page scaling' - see diagram below.

Print setup for accompanying blocks





## 5.5 Admiralty Nautical Paper Publications

1. The United Kingdom Hydrographic Office (UKHO) provides a comprehensive range of publications covering all aspects of maritime information. All Admiralty Publications listed in sub-section 5.2.1 are kept up to date by NtM.
2. The update process for paper Admiralty publications is the same process as updating paper Australian publications referred to at section 5.4.
3. Admiralty NM can be downloaded from the UKHO website.

Website:	<a href="http://www.admiralty.co.uk/maritime-safety-information/admiralty-notice-to-mariners">www.admiralty.co.uk/maritime-safety-information/admiralty-notice-to-mariners</a>
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## 5.6 Admiralty Digital Publications

### 5.6.1 e-Nautical Publications

1. Admiralty e-NPs are updateable electronic versions of paper Nautical Publications. e-NPs are encrypted PDF versions of paper Admiralty Nautical Publications. Viewed through the e-NP Reader they look identical to their paper equivalents.
2. e-NPs currently include 86 electronic versions of Admiralty Nautical Publications including all 75 Sailing Directions, The Mariners Handbook (NP100), Ocean passages from the world (NP136), the Nautical Almanac (NP314) and other Admiralty guides. The e-NPs are updated and sold as a data service on an annual subscription rather than per edition. See the UKHO website for further information.

### 5.6.2 Admiralty Digital Publications

1. Admiralty Digital Publications (ADP) are computer-based versions of the UKHO's paper based Admiralty Nautical Publications. ADP's contain the same information as their paper equivalents, and are widely accepted as meeting SOLAS carriage requirements. The service includes:
  - Admiralty Digital List of Lights (ADLL) - provides light and fog signal information for more than 70,000 light structures worldwide. The ADLL application is the digital equivalent to Admiralty Nautical Publications NP74 to NP87 inclusive.
  - Admiralty Total Tide (ATT) - provides a tidal prediction program which uses the same prediction algorithms and Harmonic Constants as the Admiralty Tide Tables. ATT contains tidal information for over 7,000 ports and more than 3,000 tidal stream stations worldwide. The ATT application is the digital equivalent of Admiralty Tide Tables NP201 to NP208 inclusive. Note that, for all ports included within AusTides, AusTides should be used because ATT contains simplified information, including some standard ports being relegated to secondary port prediction methods.
  - Admiralty Digital Radio Signals Volumes 1,3,4,5 (ADRS 1,3,4,5) - provides details for the relay of information on weather, safety, pollution, quarantines, Tele-medical Assistance Services (TMAS) and Global Maritime Distress and Safety System (GMDSS). The ADRS 1,3,4,5 applications are the digital equivalent of Admiralty Nautical Publications NP281 (1&2), NP283 (1&2), NP284 and NP285.
  - Admiralty Digital Radio Signals Volume 2 (ADRS 2) - provides a range of regularly updated and compliant, digital positional and timekeeping references. The ADRS 2 application is the digital equivalent of Admiralty nautical publication NP282.
  - Admiralty Digital Radio Signals Volume 6 (ADRS6) - provides maritime radio communications information for pilot services, vessel traffic services and port operations worldwide. The ADRS 6 application is the digital equivalent of Admiralty nautical publications NP286 (1 to 8) inclusive.



## Chapter 6) LOG SHEETS

### 6.1 Introduction

1. The purpose of this chapter is to inform the mariner of AHP24 Part 2, Chart Correction Log (CCL). AHP24 part 2 is available as a separate document from the AHS website. The CCL provides the mariner with a simple way to record and demonstrate regular updating of ENC's, printed charts, publication corrections, navigational warnings and temporary and preliminary notices.
2. All nautical charts and publications carried by a vessel are subject to maritime legislation and regulation which states that all nautical charts and publications must be kept up to date.
3. The CCL is available to assist the mariner with good record keeping and help the maritime authorities conduct routine audits. However, they are not mandatory - the mariner can design their own logging system.

### 6.2 Downloading Log Sheets

1. The CCL is available for download from the AHS website as both PDF and a Microsoft Word table. From the AHS website select the *Products and Services* tab, then select Publications, followed by *Chart and Publications Maintenance Handbook (AHP24)*. Alternatively the link found below can be used.

Website:	<a href="http://www.hydro.gov.au/prodserv/publications/cpmh.htm">www.hydro.gov.au/prodserv/publications/cpmh.htm</a>
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<b>Australian National Tide Tables .....</b>	<b><a href="#">60</a></b>	<b>Electronic Chart Display and Information System .....</b>	<b><a href="#">15</a></b>
<b>Admiralty Notice to Mariners.....</b>	<b><a href="#">39</a></b>	<b>Electronic Charts.....</b>	<b><a href="#">14</a></b>
<b>Admiralty Digital Publications .....</b>	<b><a href="#">67</a></b>	<b>Electronic Chart Systems (ECS) .....</b>	<b><a href="#">16</a></b>
Admiralty Digital List of Lights .....	<a href="#">67</a>	<b>Electronic Navigational Charts (ENC) .....</b>	<b><a href="#">16</a></b>
Admiralty Digital Radio Signals Vol 6 .....	<a href="#">67</a>	AusENC Coverage .....	<a href="#">17</a>
<b>Admiralty Nautical Paper Publications .....</b>	<b><a href="#">67</a></b>	AusENC Naming Convention .....	<a href="#">19</a>
<b>Annual Notices to Mariners.....</b>	<b><a href="#">29</a></b>	How to Check Updates have been applied .....	<a href="#">26</a>
<b>Applying Corrections to a Paper Chart .....</b>	<b><a href="#">41, 48</a></b>	Installing an AusENC Service.....	<a href="#">23</a>
Substitutions.....	<a href="#">53</a>	Navigation Purpose Code .....	<a href="#">19</a>
Amend a Light Characteristic .....	<a href="#">52</a>	Permits and Certificates .....	<a href="#">21</a>
Inserting Light Sectors.....	<a href="#">51</a>	Purchasing AusENC.....	<a href="#">21</a>
Inserting and Moving a Navigation Aid .....	<a href="#">50</a>	Renewing an AusENC service .....	<a href="#">24</a>
<b>AUSCOAST Warnings .....</b>	<b><a href="#">35</a></b>	S-63 Scheme Administrator .....	<a href="#">23</a>
<b>AusENC .....</b>	<b><a href="#">14</a></b>	<b>eNotices.....</b>	<b><a href="#">39</a></b>
<b>AusTides .....</b>	<b><a href="#">61</a></b>	<b>Feedback (AHS).....</b>	<b><a href="#">12</a></b>
<b>Australian Charting Area .....</b>	<b><a href="#">10</a></b>	<b>Fortnightly Notices to Mariners .....</b>	<b><a href="#">29, 60</a></b>
<b>Australian Chart Series.....</b>	<b><a href="#">10</a></b>	Section I - Notices to Mariners, Notes and Blocks .....	<a href="#">31</a>
Australian Chart Index.....	<a href="#">10</a>	Section II - Hydrographic Reports .....	<a href="#">35</a>
Australian Nautical Publication List .....	<a href="#">12</a>	Section III - Navigational Warnings .....	<a href="#">35</a>
Distributors .....	<a href="#">12</a>	<b>Hydrographic Reports .....</b>	<b><a href="#">12, 35</a></b>
<b>Australian Nautical Publications.....</b>	<b><a href="#">60</a></b>	<b>International Convention for the Safety Life at Sea .....</b>	<b><a href="#">7</a></b>
Annual Notices to Mariners .....	<a href="#">29</a>	<b>Light Characteristic - Amend .....</b>	<b><a href="#">52</a></b>
AusTides.....	<a href="#">61</a>	<b>Light Sectors - Inserting .....</b>	<b><a href="#">51</a></b>
Australian National Tide Tables .....	<a href="#">60</a>	<b>Log Sheets .....</b>	<b><a href="#">68</a></b>
Fortnightly Notices to Mariners.....	<a href="#">60</a>	Downloading.....	<a href="#">68</a>
Seafarers Handbook for Australian Waters .....	<a href="#">62</a>	Introduction.....	<a href="#">68</a>
Updating Australian Nautical Publications .....	<a href="#">62</a>	<b>Marine Orders and Notices.....</b>	<b><a href="#">8</a></b>
<b>Australian Hydrographic Service.....</b>	<b><a href="#">6</a></b>	<b>Measurement Conversion Table .....</b>	<b><a href="#">46</a></b>
<b>Australian National Tide Tables .....</b>	<b><a href="#">60</a></b>	<b>National Legislation .....</b>	<b><a href="#">8</a></b>
<b>Blocks.....</b>	<b><a href="#">33</a></b>	<b>Navigation Act 2012 .....</b>	<b><a href="#">8</a></b>
<b>Chart Agents .....</b>	<b><a href="#">12</a></b>	<b>Navigational Warnings.....</b>	<b><a href="#">35</a></b>
<b>Chart Display and Information Systems .....</b>	<b><a href="#">14</a></b>	AUSCOAST Warnings.....	<a href="#">36</a>
Electronic Chart Display and Information System .....	<a href="#">15</a>	NAVAREA X Warnings.....	<a href="#">36</a>
Electronic Chart System.....	<a href="#">16</a>	<b>New Charts (Paper Chart).....</b>	<b><a href="#">40</a></b>
<b>Carriage Requirements .....</b>	<b><a href="#">7, 58</a></b>	<b>New Editions (Paper Chart) .....</b>	<b><a href="#">40</a></b>
Recreational Vessels.....	<a href="#">10</a>	<b>Notices to Mariners .....</b>	<b><a href="#">28</a></b>
<b>Chart Indexes.....</b>	<b><a href="#">10</a></b>	<b>Nautical Publications .....</b>	<b><a href="#">58</a></b>
<b>Chart Notes and Blocks .....</b>	<b><a href="#">33</a></b>	<b>Navigation Aids – Inserting and Moving (NtM) .....</b>	<b><a href="#">46, 50</a></b>
<b>Chart Symbols .....</b>	<b><a href="#">54</a></b>	<b>Official Nautical Charts and Publications .....</b>	<b><a href="#">7</a></b>
<b>Cumulative List.....</b>	<b><a href="#">39</a></b>	Reproductions and Copies of Paper Charts.....	<a href="#">7</a>
<b>Discrepancies on Charts and Publications.....</b>	<b><a href="#">12</a></b>	<b>Paper Nautical Charts .....</b>	<b><a href="#">40</a></b>
<b>Distributors - Chart Agents .....</b>	<b><a href="#">12</a></b>	<b>Permanent Notices.....</b>	<b><a href="#">32</a></b>

<b>Permanently Withdrawn Charts .....</b>	<b><a href="#">31</a></b>
<b>Permits and Certificates .....</b>	<b><a href="#">21</a></b>
<b>Preliminary Notices .....</b>	<b><a href="#">33</a></b>
<b>Publications (see Nautical Publications)</b>	
<b>Recreational Vessels .....</b>	<b><a href="#">10</a></b>
<b>Sailing Directions .....</b>	<b><a href="#">67</a></b>
<b>Seafarers Handbook for Australian Waters .....</b>	<b><a href="#">62</a></b>
<b>Stationery .....</b>	<b><a href="#">45</a></b>
<b>Supplements .....</b>	<b><a href="#">36</a></b>
Cumulative Lists .....	<a href="#">38</a>
Temporary and Preliminary Notices in Force .....	<a href="#">38</a>
Tracings .....	<a href="#">37</a> , <a href="#">46</a>
<b>Symbols Used on a Paper Chart .....</b>	<b><a href="#">54</a></b>
<b>Temporary Notices .....</b>	<b><a href="#">38</a>, <a href="#">48</a></b>
<b>Tide Tables .....</b>	<b><a href="#">60</a></b>
<b>Tracings .....</b>	<b><a href="#">37</a>, <a href="#">46</a></b>
Symbols .....	<a href="#">46</a>
Terms used in Notices to Mariners .....	<a href="#">46</a>
Tracing Examples .....	<a href="#">46</a>
<b>Training (ENC/ECDIS) .....</b>	<b><a href="#">27</a></b>
<b>Updating Electronic Charts .....</b>	<b><a href="#">25</a></b>
Checking ENC Updates .....	<a href="#">26</a>
<b>Updating Paper Charts .....</b>	<b><a href="#">41</a></b>
Applying Corrections to a Paper Chart .....	<a href="#">46</a>
Are Charts up to date when Purchased? .....	<a href="#">41</a>
Correction Examples .....	<a href="#">50</a>
Determining how up to date a Chart is .....	<a href="#">42</a>
Equipment Required to Update Paper Charts .....	<a href="#">45</a>
<b>Vector Charts .....</b>	<b><a href="#">16</a></b>
<b>Withdrawn Charts .....</b>	<b><a href="#">31</a></b>