

ANNUAL AUSTRALIAN NOTICES TO MARINERS

IN FORCE ON 1 JANUARY 2013

(Former Annual Australian Notices to Mariners dated 1 January 2012
is cancelled and should be destroyed)

Containing Notices Numbers 1-27
and
Temporary and Preliminary Notices in force

The last Australian Notice to Mariners issued in 2012 was No 1305

IMPORTANT NOTICE

This publication includes all significant and relevant information obtained by the Australian Hydrographic Service (AHS) at date of publication. Significant information is updated by fortnightly Australian Notices to Mariners. All reasonable efforts have been made to ensure the accuracy and completeness of the information, including third party information, incorporated in this product. The AHS regards third parties from which it receives information as reliable, however the AHS cannot verify all such information and errors may therefore exist. The AHS does not accept liability for errors in third party information or the inappropriate use of this publication.

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ISSN 1035-6878

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1. AUSTRALIAN CHARTING AND NOTICES TO MARINERS

General Information

1. In accordance with agreements between Australia (Aus), the British Admiralty (BA) and New Zealand (NZ) for reducing duplication in charting activities Australia has a Charting Area (the Australian Area). The extent of the Australian Area and the New Zealand Area are shown on the accompanying diagram.

2. *Australian Notices to Mariners*, which are originated by the Australian Hydrographic Service (AHS), are numbered from 1 onward and are published as an Annual document together with 25 fortnightly editions each year. For more detail on the content of this service see *About Australian Notices to Mariners* section on the AHS website www.hydro.gov.au.

3. *Australian Notices to Mariners* are published on the AHS website and can be emailed direct to customers via the eNotices service. For more information see *View Australian Notices to Mariners* and *eNotices* sections on the AHS website.

4. Paper copies of *Australian Notices to Mariners* may be obtained from Chart Agents listed on the AHS website as providing a "Paper Notices to Mariners" service. For more information see the Chart Agents section on the AHS website. At the time of publishing this Notice, ChartCo (www.chartco.co.uk) and Marine Press of Canada (Digitrace – www.marinepress.com) offer electronic subscription services which include Australian Notices to Mariners.

5. Mariners are particularly requested to notify the AHS (Fax 61 (0)2 4221 8599) or AusSAR (Fax 61 (0)2 6230 6868) immediately on the discovery of new dangers or suspected dangers to navigation, and of changes or defects in aids to navigation.

International Chart Series

6. National Hydrographic Services publish International Charts at scales of 1:1 500 000, 1:3 500 000 and 1:10 000 000. These international charts provide mariners with world wide coverage to a uniform specification. As part of this series Australia has twenty-two charts covering its adjacent oceans and seas.

7. Charts in these series are available for reprinting by member States of the International Hydrographic Organization (IHO), with a minimum of modification. Each chart has an international number with the prefix INT, but may also bear a national number allocated by the producer or printer nation to facilitate identification in the national series.

8. International charts are maintained by *Notices to Mariners* and IHO Member States have undertaken to repeat notices affecting their international charts. Mariners can therefore correct charts from the *Notices to Mariners* of the producer or printer nation concerned.

Index of Australian Charts

9. The index of Australian and International charts of the Australian Area is contained in two sheets as follows:
Aus 5000 - Australia - Index of Nautical Charts and Publications Northern Portion, 2013.
Aus 5001 - Australia - Index of Nautical Charts and Publications Southern Portion, 2013.

10. An interactive chart catalogue (*Australian Chart Index*) is also available on the AHS website www.hydro.gov.au (see *para 27*) and supplied with the AusRNC update disk.

Australian Nautical Publications

11. ***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:

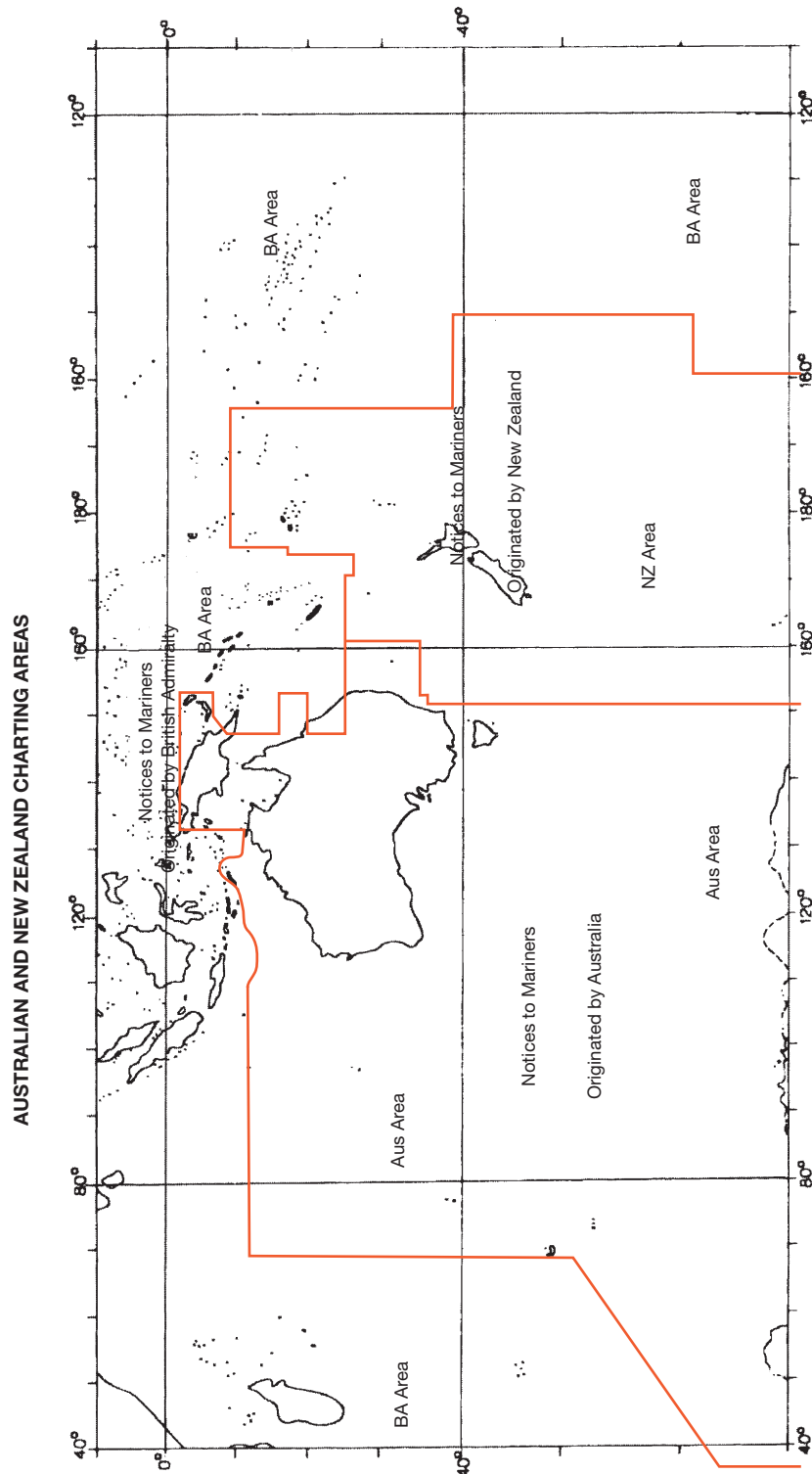
- a) Predications for high and low water for each day of the year for over 80 Standard Ports referenced to Lowest Astronomical Tide (LAT).
- b) Predications of maximum rates of tidal streams for Torres Strait and Port Phillip Heads.
- c) Tidal stream diagrams for Sydney, Broome and Darwin.
- d) Harmonic constituents for all Standard and Secondary Ports.
- e) Tidal levels and time difference for all Secondary Ports in relation to the relevant Standard Port.
- f) Correction from LAT to Chart Datum where required.

12. The ANTT is released annually in October and provides tidal predications for the following calendar year. It is maintained by *Notices to Mariners*, including *eNotices*.

13. ***The Seafarers Handbook for Australian Waters***, helps mariners to navigate with confidence through Australia's maritime rules and regulations.

14. It is a publication combining information from various government agencies under the cover of one official nautical publication maintained by *Notices to Mariners*, including *eNotices*.

15. It contains textual information which cannot be shown on navigational charts including but not limited to:
- Maritime safety information, Meteorological broadcasts, Warnings, Search and Rescue
 - Marine protected areas and responsible agencies
 - Major Australian maritime legislation and regulations and responsible agencies,
 - AUSREP and REEFREP ship reporting systems and requirements,
 - Coastal pilotage, Torres Strait and GBR shipping routes, Accident and incident reporting
 - Maritime security, Customs, Quarantine, Immigration and Military information,
 - Contact details for:
 - Australian Maritime Safety Authority
 - Key Commonwealth agencies
 - Commercial ports and Harbour masters



Official Electronic Product Status

16. When used in an International Maritime Organization (IMO) compliant Electronic Chart Display and Information Systems (ECDIS), Australian *ENCs* (Electronic Navigational Chart), *AusRNCs* (Raster Navigational Chart) (for those areas not yet covered by Australian *ENCs*) and *AusTides* will allow vessels navigating in Australia to meet the strict electronic chart carriage requirements of *SOLAS Chapter V* as ratified under *AMSA Marine Notice 01/2002*. Australian *ENCs*, *AusRNCs* and *AusTides* also meet carriage requirements under Australia's National Standards for Commercial Vessels.

17. The Australian Hydrographic Service is progressively changing to new branding for electronic products. Products formerly known under the banner of 'Seafarer' will be branded 'Aus'.

Australian ENC

18. Australian *ENCs* are official Electronic Charts produced in International Hydrographic Organization (IHO) S57 Edition 3.1 vector format and protected using the IHO S63 data protection standard. They are authorised for use in IMO compliant ECDIS and can also be used in compatible Electronic Chart Systems (ECS). Australian *ENCs* are available through the International Centre for ENC (IC-ENC) and PRIMAR global distribution network. For more information see the AHS website, the IC-ENC website www.ic-enc.org or PRIMAR website www.primar.org.

19. Limited local distribution of Australian *ENCs* is available direct from the AHS to maritime safety authorities, port authorities and pilot authorities operating within the Australian Charting Area. Australian *ENCs* supplied direct from the AHS, are released under the banner of *AusENCs*. Port authorities (and maritime safety authorities) may acquire *AusENCs* within their port limits, or areas of vessel management responsibility, whichever is the greater, at nil cost in exchange for feedback. Pilots may purchase Australian *ENCs* of their area of operation. Beyond these limits, it is considered the IC-ENC and PRIMAR networks should be used. For more information contact hydro.licensing@defence.gov.au.

AusRNC

20. *AusRNC* is a digital coloured facsimile of Australian navigational charts on a single CDROM for use with ECDIS and certain compatible ECS. *AusRNC* digital charts maintain the same standards of accuracy, reliability and clarity as the paper versions.

Product Compatibility

21. The *AusRNC* format is Hydrographic Chart Raster Format (HCRF) and is the same as that employed in the Admiralty Raster Chart Service (ARCS). This compatibility enables the mariner with *AusRNC* and ARCS compatible systems to take full advantage of the global service offered by ARCS outside Australian waters.

AusRNC Packaging

22. *AusRNC* is packaged specifically to support the needs of the Australian mariner and is sold as follows:

- (a) **Australia Pack:** this pack includes all Australian navigational charts.
 (b) **Regional Packs:** these packs (approximately 60 charts) will enable mariners to traverse major regional areas such as the Queensland coast. There are ten packs:

REG001	Southport to Booby Island	REG002	Brisbane to Melbourne
REG003	Sydney to Hobart	REG004	Spencer Gulf to Hobart
REG005	Perth to Melbourne	REG006	Broome to Esperance
REG007	Broome to Torres Strait	REG008	Papua New Guinea
REG009	Gulf of Carpentaria to Gladstone	REG010	Sydney to Whitsundays

- (c) **Day Mariner Packs:** these packs (approximately 10 charts) have been designed to cater for the *day mariner* and provide coverage for specific areas of interest. There are 29 packs:

DAY001	Sydney	DAY002	Whitsundays
DAY003	Brisbane	DAY004	Melbourne East
DAY005	Melbourne West	DAY006	South West Coast
DAY007	Darwin	DAY008	Gulf of Carpentaria
DAY009	Gladstone/Rockhampton	DAY010	Townsville
DAY011	Cairns	DAY012	Tasmania South
DAY013	Spencer/Thevenard	DAY014	Hedland/Dampier
DAY015	Tasmania North	DAY016	Newcastle
DAY017	South East Coast	DAY018	Albany/Esperance
DAY019	Geraldton	DAY020	Hervey Bay
DAY021	Gippsland	DAY022	St Vincent/Spencer
DAY023	Broome/King Island	DAY024	Coffs Harbour
DAY025	Torres Strait	DAY026	North West Cape
DAY027	Shark Bay	DAY028	Arnhem Land
DAY029	Joseph Bonaparte		

23. *AusChartviewer* is a desktop software package suitable for viewing a range of international chart formats including:

- a) IHO S63 Protected ENC (including Australian ENC)
- b) S57 ENC
- c) HCRF Raster (AusRNC, Admiralty ARCS and New Zealand Mariner)
- d) Australian HCRF Aligned Products (WA DPI RNC and GBRMPA RNC)

24. *AusChartviewer* is designed for anyone who needs to store and view nautical charts but does not need to navigate with them.

25. *AusTides* is an official electronic product that is equivalent to the ANTT. It has the benefit of producing a graphical representation of the tidal curves and predictions at 10, 20, 30 and 60 minute intervals for each location represented in ANTT. *AusTides* is released annually in October and provides tidal predictions for the following calendar year. As required update patches are available from the AHS website ([/www.hydro.gov.au/seafarer/tides/tides-patches.htm](http://www.hydro.gov.au/seafarer/tides/tides-patches.htm)).

26. *AusGeoTIFF* provides electronic images of Australia's official paper charts in a geo-referenced Tagged Image File Format (TIFF) for use in geographical information systems (GIS) and similar image viewing platforms. *AusGeoTIFF* is not intended to be used for navigation. This product is only available under licence from the AHS. For more information see the AHS website or contact hydro.licensing@defence.gov.au.

27. ® Seafarer is a registered trademark of the Commonwealth of Australia.

Web Services

28. A comprehensive range of information and services are also available from the AHS website at www.hydro.gov.au and include:

- (a) **Australian Notices to Mariners**, including block corrections and tracings.
- (b) **eNotices** a free electronic service that allows the customer to receive Notices to Mariners, by email, customised for their chart and publication holdings.
- (c) **Australian Maritime Gazetteer** a searchable database containing all of the place names published on Australian navigation charts. This database can be searched by name, feature code or chart number and provides details of the charted position and the chart on which it appears.
- (d) **Australian Chart Index (ACI)** an interactive catalogue of official electronic (ENC and RNC) and paper charts produced by the Australian Hydrographic Service. It enables mariners to find a wealth of information about each chart in a few easy steps, including all the information required to update each paper chart to the latest edition of Australian Notices to Mariners.

29. The ACI is available in two graphic versions (Advanced and GoogleEarth™). The Advanced ACI displays paper chart, RNC and ENC limits on a zoom-in/zoom-out map. The GoogleEarth™ ACI displays chart images and ENC limits overlaid on GoogleEarth™ satellite maps.

30. The standard ACI is a text based list and provides a fast reference tool when the ENC cell or paper chart number is known.

Australian Hydrographic Service.

(AA375255, AA375264)

2. DISTRIBUTORS FOR THE SALE OF AUSTRALIAN NAVIGATIONAL PRODUCTS

This list is correct at the time of publication. Further updates can be found on the AHS web site www.hydro.gov.au.

Legend

- | | |
|------------|---|
| C | Correcting Agent - indicates agents who supply Australian nautical publications and supply Australian nautical charts that have been corrected for the latest <i>Australian Notices to Mariners</i> . |
| N | Non-Correcting Agent - indicates agents who supply Australian nautical publications and supply uncorrected Australian nautical charts <u>but</u> provide information concerning the <i>Notices to Mariners</i> in force at time of sale. |
| NtM | Paper Notices to Mariners Service - indicates agents who reproduce paper Notices to Mariners for supply to customers on a cost recovery basis. |
| S | Seafarer Product Distributors - indicates distributors of Seafarer electronic products.
(Note: <i>AusTides</i> is also distributed through both Correcting and Non-Correcting Agencies) |

Australian ENCs are distributed through the IC-ENC and PRIMAR global distribution network. For more information see the AHS website, the IC-ENC www.ic-enc.org or the PRIMAR website www.primar.org.

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TMQ Electronics 1/18 Alexandra Place Murarrie 4172	Telephone Fax Freecall (Aust) Email Website	+61 (0)7 3890 7788 +61 (0)7 3890 7799 1800 777 835 tmq@tmq.com.au www.tmq.com.au	S
Whitworth's Supermarket 55 Balaclava Street Woollongabba 4102	Telephone Fax Email Website	+61 (0)7 3895 8300 +61 (0)7 3895 8028 sales@whitworths.com.au www.whitworths.com.au	N

BUNDABERG

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Tackle World Bundaberg 22 Quay Street Bundaberg 4670	Telephone Fax Freecall (Aust) Email Website	+61 (0)7 4153 4747 +61 (0)7 4152 6707 1800 822 553 info@saltys.net www.saltys.com.au	C

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Absells Chart & Map Centre Main Street Arcade, 85 Lake Street Cairns 4870	Telephone Fax Email	+61 (0)7 4041 2699 +61 (0)7 4051 2699 absells@iig.com.au	N
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Markwell Marine 86-90 Mulgrave Road Cairns 4870	Telephone Fax Email Website	+61 (0)7 4030 0100 +61 (0)7 4031 4114 grant@markwellmarine.com.au www.markwellmarine.com.au	N

GLADSTONE

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N

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N

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N

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C, S,
NTM

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NtM**Map Works**

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N

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Fax +61 (0)3 9569 8000
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Australian Hydrographic Service.

(AA302908)

3. LASER AIRBORNE DEPTH SOUNDER

1. The Australian Hydrographic Service operates a Hawker de Havilland Dash 8 aircraft fitted with a laser bathymetry system over Australia's coastal waters, predominantly in the Great Barrier Reef region.
2. The aircraft operates between an altitude of 400 to 700 metres; using green and infra red laser beams to measure sea depth down to 70 metres.
3. The laser meets the requirement of the Australian Laser Safety Standard AS 2211(1991) and is eye safe to the unaided eye at the normal operating altitude. System interlocks automatically inhibit the laser if the aircraft flies below a safe altitude.
4. Mariners are advised that under certain conditions a green light may be seen under the aircraft.

Australian Hydrographic Service.

(AA374264)

4. SEARCH AND RESCUE (SAR)

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General Arrangements for Search and Rescue (SAR)

1. RCC Australia is a part of the Australian Maritime Safety Authority and has assumed responsibility for both aviation and maritime search and rescue.
2. When a ship or an aircraft is in distress in the Australian Search and Rescue Region (SRR) (*see page 24*, the SRR covers the same area as the AUSREP area depicted), assistance may be given by ships in the vicinity and/or the following authorities:
 - (a) *Australian Maritime Safety Authority (AMSA)* specifically the Rescue Co-ordination Centre Australia (RCC Australia), is responsible for SAR for all civil aircraft, for merchant ships outside port limits and small craft beyond the capacity of local SAR resources. RCC Australia is located in Canberra and co-ordinates aircraft and surface vessels involved in SAR operations within the Australian SRR. RCC Australia is also the Australian Mission Control Centre (AUMCC) for the Cospas-Sarsat International Satellite System used for the detection of distress beacons. RCC Australia, which is manned continuously, may be contacted via the AMSA HF DSC network or Inmarsat.
 - (b) *The AMSA HF DSC Network* which has stations located at Wiluna (Western Australia) and Charleville (Queensland) is controlled from RCC Australia. This network will respond to initial calls on HF DSC. Vessels wishing to communicate with the HF DSC network (Station Identifier *RCC Australia*, callsign VIC, – MMSI Number 005030001) will be required to initiate a DSC call on the International Distress alerting frequencies 4207.5, 6312.0, 8414.5, 12577.0 -or 16804.5 kHz. The Inmarsat Land Earth Stations (LES) at Perth (Western Australia) and Burum (Netherlands) provide communications through both the Indian Ocean Region (IOR) and Pacific Ocean Region (POR) satellites. Details of Australian Maritime Communications Stations (MCS) can be found in relevant Admiralty List of Radio Signals and International Telecommunication Union publications.
 - (c) The *Royal Australian Air Force (RAAF)* is responsible for SAR operations involving Australian and foreign military land-based aircraft; but, may provide assistance to other SAR authorities.
 - (d) The *Royal Australian Navy (RAN)* is responsible for SAR in respect of naval ships and ship borne aircraft, but may provide assistance to other SAR authorities.
 - (e) The *Australian Army* is the SAR authority for Australian Defence Force (ADF) and visiting military forces in a land environment but may provide assistance to other SAR authorities.
 - (f) *State and Territory Police Forces* are responsible for SAR operations involving fishing vessels, pleasure craft and commercial vessels administered by their jurisdiction within the limitations of their SAR resources.

3. Communications is the very heart of search and rescue co-ordination activities and RCC Australia is well equipped with systems enabling access to communications worldwide including:

- (a) Telephone,
- (b) X.400 data communications,
- (c) Facsimile,
- (d) Aeronautical fixed telecommunications network (AFTN),
- (e) Inmarsat B/C/M/F77/F55/F33 and
- (f) Email.

4. In addition to RCC Australia's functions in the SAR role it is also responsible for:

- (a) Co-ordination and promulgation of Maritime Safety Information (MSI) in the form of Navarea X warnings, Australian Coastal Navigation warnings (Auscoast) and Sea Safety Messages (SSM).
- (b) Operation of the Australian component of the Cospas-Sarsat International Satellite System for Search and Rescue. This system is equipped to receive and evaluate information transmitted by Emergency Position Indicating Radio Beacons (EPIRBs).
- (c) Acting as AMSA's 24 hour point of contact for matters relating to AMSA's other areas of responsibility eg. Maritime Emergency Response Commander (MERCOCM).
- (d) Operation of the Australian Ship Reporting System (AUSREP), which will be replaced by MASTREP by late 2014.

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 Email rccausa@amsa.gov.au
 Radio via AMSA HF DSC network

Telex ceased to be used in Australia in March 2008. In addition to the normal two digit codes used for Inmarsat messaging, SAC 1250 can be used via LES 212 and 312 to send routine traffic to RCC Australia.

5. Ships fitted with suitable radio equipment can make a significant contribution to safety by guarding an appropriate International distress frequency for as long as practicable, whether or not required to do so by regulations.

Merchant Ship Search and Rescue

6. Guidance for Masters involved in SAR operations is contained in the *International Aeronautical and Maritime Search and Rescue Manual (IAMSAR) Volume III*, which is published jointly by the International Maritime Organization (IMO) and International Civil Aviation Organization (ICAO). It is a SOLAS requirement that mariners carry a copy of *IAMSAR Vol III* which has replaced the MERSAR Manual.

Obligation to Render Assistance

7. Under the *International Convention for the Safety of Life at Sea, 1974* and *Sections 265 and 317A of the Australian Navigation Act*, the Master of a ship at sea is bound to render assistance in distress situations unless in the special circumstances of the case, he considers it unreasonable or unnecessary to do so. In such cases the Master must enter in the ship's log the reason and advise the appropriate SAR authority, accordingly.

Assistance by SAR Aircraft (see also IAMSAR Vol III page 2-18)

8. Aircraft (other than helicopters) employed on search and rescue duties may carry droppable survival equipment and marine markers. These aircraft may be able to assist a ship in distress by confirming location, marking position, dropping survival equipment or directing rescue vessels to the area.

9. Droppable equipment may consist of liferafts with bright yellow or orange buoyant rope attached or heliboxes or other marine containers containing survival equipment, radios, water etc.

10. Australia maintains dedicated SAR aircraft at five locations (Darwin, Cairns, Brisbane, Melbourne and Perth) and a mixture of semi-dedicated aircraft and helicopters around the Australian coast that may be available at short notice. Where possible, aircraft will be equipped with VHF DF equipment for the location of EPIRB transmissions.

11. To assist in recognition by aircraft, the position of the vessel should be given as accurately as possible. When time permits, a description of the vessel, including any unusual features, colour of hull, funnel and superstructure should be given.

Use of Helicopters (see also IAMSAR Vol III page 2-19)

12. Helicopter assistance in the Australian SRR is generally limited by relatively short ranges (out to 120NM from land) and low operating speeds. Helicopters may be used to supply equipment and/or rescue or evacuate personnel. Advice concerning helicopter-ship operations is contained in *IAMSAR* or may be sought from RCC Australia.

13. On no account should the stop or winch wire, when lowered to the vessel, be secured to any part of the vessel or allowed to become entangled with any rigging or fixtures.

14. Where a helicopter is unable to safely operate over the deck of a vessel, the helicopter may be able to lift a man from a boat or raft towed astern on a long painter. In bad weather, survivors are sometimes more easily recovered from the sea than the vessel itself, particularly if it is a yacht.

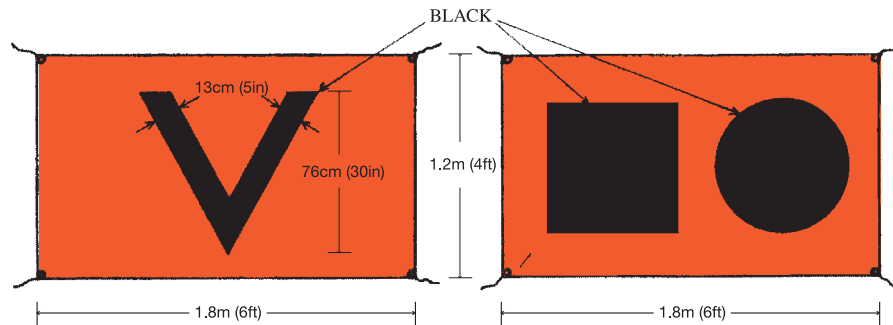
15. If a ship wishes to contact a helicopter during a SAR operation it may do so by visual signals, direct radio

communication (if the correct type of radio is carried), through another SAR asset or RCC Australia.

Distress Signals for SAR

16. Searching aircraft frequently experience difficulty in the identification of a distressed vessel, especially when close to a number of other small vessels. To help overcome this problem in the Australian SRR either of the two signals illustrated (see *below*) may be used to indicate a vessel in distress requiring assistance. These signals are not meant to replace pyrotechnic signals already carried by small craft, but should be carried in addition to those signals.

17. These signals are supplementary to the international distress signals and if possible, the international signal NC (ie flag N over flag C) should be hoisted.



Use of Ships in Assisting Aircraft

18. Aircraft that ditch in the sea generally remain afloat for only a short time. In view of this, Masters of vessels proceeding to assist should do so with the greatest possible speed.

19. Merchant ships may receive information of distress on any of the internationally recognized distress frequencies for DSC, radiotelephony or Inmarsat. Additionally, information may be received by visual signals from a distress aircraft, by an aircraft directing a ship to the location of a distress or by signals emanating from survivors. Further advice concerning action to be taken in any of these eventualities can be found in *IAMSAR*.

20. All information concerning an aircraft in distress at sea is to be passed to RCC Australia by the most expedient method; further action will then be initiated by shore authorities. Where possible, if DF equipment is fitted, bearings of any radio signal should be obtained.

Communications with Aircraft Searching for Survivors

21. An aircraft engaged on SAR operations will be briefed to listen on a specified marine frequency and merchant ships will be advised by RCC Australia of the frequency adopted.

22. In the absence of specific advice, the primary air/sea communications frequency is 156.8 MHz (Ch 16). If aircraft are not fitted with Ch 16, the secondary frequency 4125 kHz may be used.

23. When it is necessary for an aircraft to direct a surface craft to the place of distress the aircraft may do so by transmitting precise instructions by any means at its disposal. If such instructions cannot be transmitted, or if considered desirable for any other reasons the following manoeuvres performed in sequence mean that the aircraft wishes to direct a surface craft towards a distress position:

- (a) Circling the surface craft at least once.
- (b) Crossing the projected course of the surface craft close ahead at low altitude and:
 - (i) rocking the wings or
 - (ii) opening and closing the throttle, or
 - (iii) changing the propeller pitch.

Note: Due to high noise level on board surface craft, the sound signals in (ii) and (iii) may be less effective than the visual signal in (i) and are regarded as alternative means of attracting attention. Repetition of such manoeuvres has the same meaning.

- (c) Heading in the direction in which the surface craft is to be directed.

24. A ship receiving the above signals should reply in the following manner:

- (a) When acknowledging receipt of the signals:
 - (i) hoist the "ANSWERING" pennant close up, or
 - (ii) flash the Morse Code procedure signal "T" by light, or
 - (iii) change heading onto the indicated direction
- (b) When indicating inability to comply:
 - (i) hoist the international flag "N" (NOVEMBER), or
 - (ii) flash the Morse Code procedure signal "N" by light.

25. The following manoeuvre by an aircraft means that the assistance of the surface craft to which the signal is directed is no longer required, crossing the wake of the surface craft close astern at low altitude, and:

- (a) rocking the wings or
- (b) opening and closing the throttle, or

- (c) changing the propeller pitch.

Night Search by Aircraft

26. An aircraft searching at night for pyrotechnic equipped survivors or small craft will either fire a green flare or, in the case of non military aircraft, switch on landing lights at three to five minute intervals and at each turning point in the search pattern (see page 20). Survivors in the area should see at least two successive signals. Aircraft crew will acknowledge the sighting of distress flares by firing a succession of green flares and/or switching on the aircraft's landing lights.

Response Action by Survivors

27. Survivors can assist in their detection by a searching aircraft if optimum use is made of what ever pyrotechnics they have available. A flare should not be fired until after the aircraft's signal has ended. A second flare should not be fired until a full minute after the first flare. When the aircraft is about a mile away a further flare should be fired.

28. To increase the chances of being located, survivors should always attempt to maintain a continuous all-round visual lookout at night, as well as by day.

Use of Emergency Position Indicating Radio Beacons (EPIRBs)

29. The Australian Mission Control Centre (AUMCC) is the regional Nodal Mission Control Centre for the Cospas-Sarsat International Satellite System for Search and Rescue.

30. The Cospas-Sarsat system detects EPIRBs operating on 406 MHz:

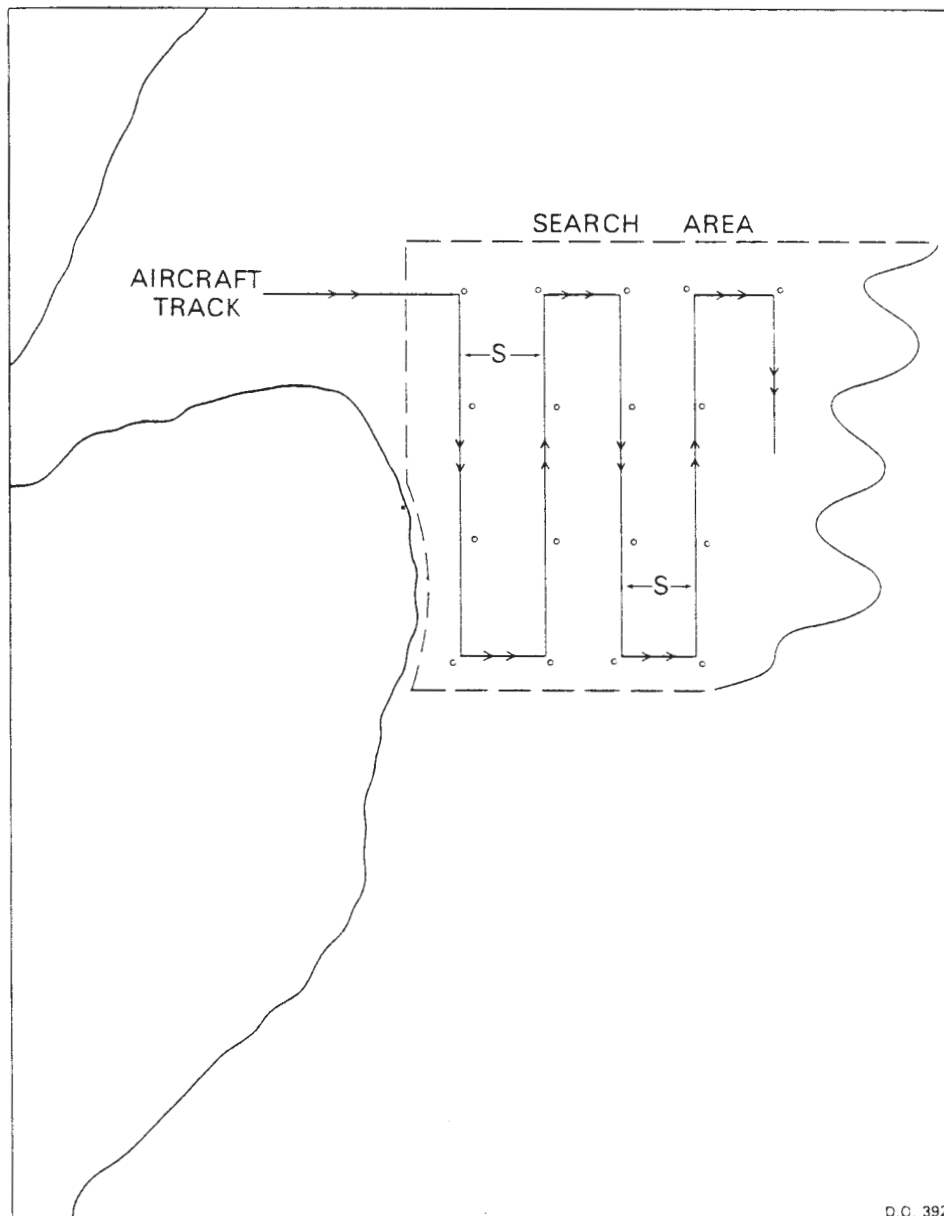
- (a) EPIRBs operating on 406 MHz are detectable throughout the whole of the Australian SRR with a high degree of accuracy. These EPIRBs can also be detected almost instantaneously via the geostationary satellite system. GPS capable EPIRBs are recommended.
- (b) 406 MHz beacons have global coverage because the satellites have a store and save capability that stores information from a 406 MHz beacon and sends the information to a ground station when it comes into view. Ground antennas are at Albany (Western Australia), Bundaberg (Queensland) and Wellington (New Zealand) giving excellent coverage around the coast of Australia and in the Coral and Tasman Seas. The average detection time increases towards the mid-Indian Ocean region. **Mariners should note that Cospas-Sarsat ceased to process the 121.5/243.0 MHz frequencies on 1 February 2009. All mariners now require 406 MHz beacons.** All Australian coded 406 MHz beacons must be registered with AMSA. Beacons can be registered on-line at <https://www.beacons.amsa.gov.au/> or by contacting the Beacon Registration Cell on 1800 406 406. Beacons must be re-registered biennially and the battery expiry date should be noted to plan for replacement.
- (c) The coverage area of the COSPAS-SARSAT GEOSAR satellites and the location of the GEOSAR Local User Terminals (GEOLUTs) are shown in Figure 1 (see page 21).

31. EPIRBs should be switched on as soon as a distress situation occurs and **MUST REMAIN SWITCHED ON** until the rescue is concluded or until otherwise instructed by the rescue unit or rescue authority.

32. Should inadvertent or accidental activation of an EPIRB occur, the beacon must be switched off and every effort made immediately to inform RCC Australia through the HF DSC network, a limited coast radio station, Inmarsat, relay via another vessel or by any other means of communication. The report should include the position, and if known, the time of activation.

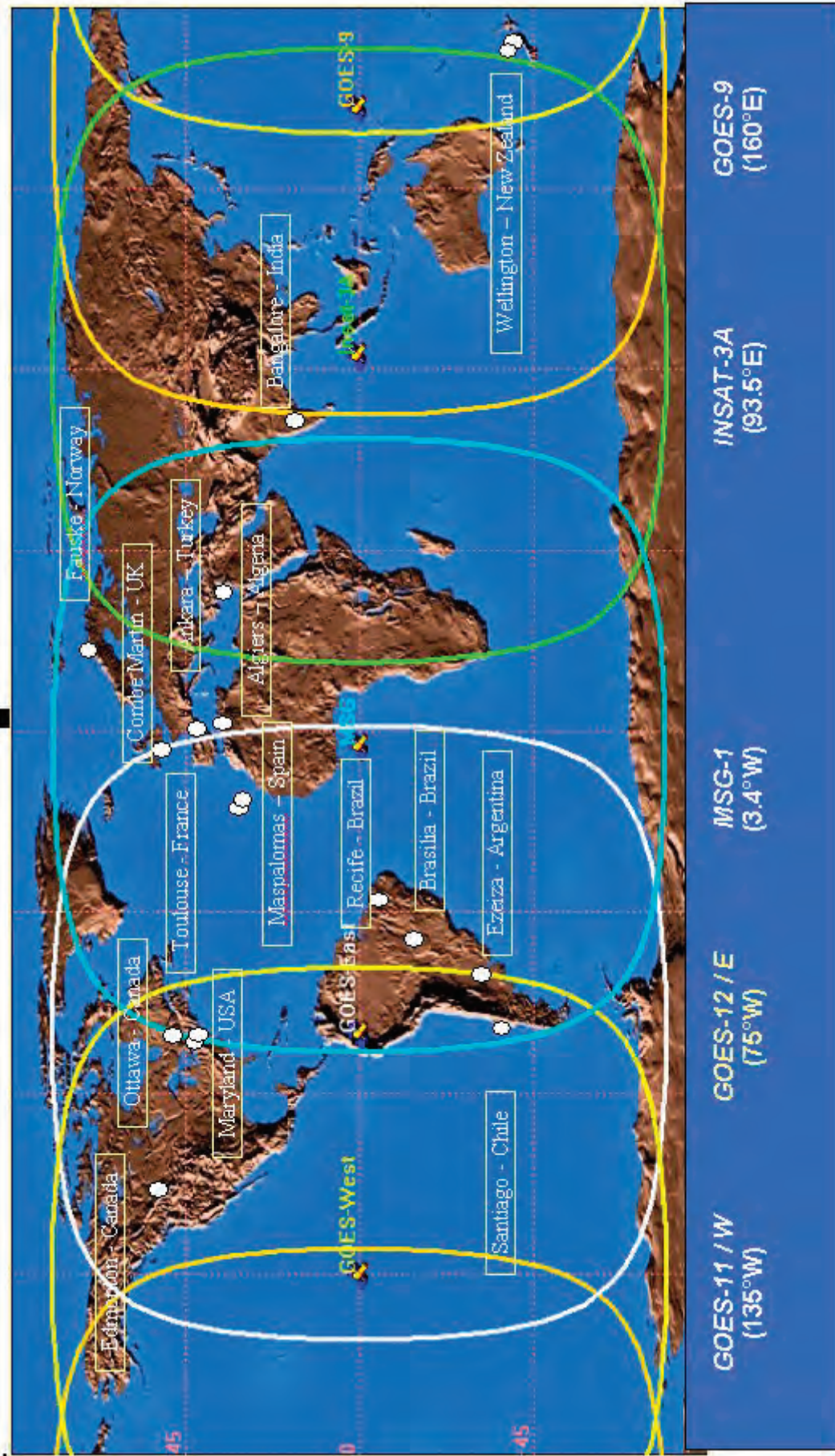
No action will be taken against any person reporting the inadvertent or accidental operation of an EPIRB.

DIAGRAM SHOWING NIGHT SEARCH TECHNIQUE



1. The aircraft will fly through the search area between three and five thousand feet, or below cloud if the base is lower, and fire a green Very cartridge every 3 to 5 minutes and at each turning point, as indicated by small circles.
2. The spacing (S) between adjacent tracks depends upon the visibility from the aircraft.

Figure 1. Cospas-Sarsat GEOSTATIONARY SATELLITES



Medical Advice

33. Vessels at sea can request medical advice via HF DSC radio or Inmarsat satellite services. The service has been put into place for SOLAS vessels but other craft may use the service in emergencies. This service is free and is available via Inmarsat-C fitted vessels using Special Access Code (SAC 32), HF DSC fitted vessels through RCC Australia/VIC using the Urgency priority DSC Call or, for non-SOLAS vessels, by contacting RCC Australia on +61 (0)2-62306811 (phone), +61 (0)2 6230 6868 (fax) who will put the vessel in contact with the Duty Medical Officer at Australia's Telemedical Advice Service (TMAS) provider, Careflight Group Queensland..

Medical Assistance

34. Requests for medical assistance by vessels using Inmarsat-C (Special Access Code 38) (medical assistance) will be delivered directly to an RCC.

35. When possible, pleasure craft and fishing vessels should seek medical assistance from the relevant State police.

36. Search and rescue services will normally only consider a medical evacuation after advice has been received from medical authorities recommending medical evacuation. Medical advice is required to determine the best course of action. A vessel may need to divert to port, conduct a boat transfer or make ground towards the coast to permit a helicopter transfer.

Medical Evacuations

37. Responsibility for the final decision on a medical evacuation lies with the master of the vessel, however, it should be based on medical advice from either the TMAS or other recognized medical authority. RCC Australia will seek medical advice concerning the evacuation method from the TMAS if not already provided to the master. Not all patients can be evacuated by helicopter. RCC Australia will advise the master of the evacuation method and other requirements. Medical complications resulting from diving operations may be exacerbated during any medical evacuation by air. For diving emergencies special medical advice will be sought before an evacuation by air is conducted. For a helicopter evacuation the following information is normally sought.

38. Questions for Masters requesting helicopter MEDEVAC

- (a) Description, colour and distinguishing features of vessel.
- (b) Position of landing area and dimension of clear zone or position of winching area and dimension of manoeuvring zone.
- (c) Maximum load deck can support at landing area.
- (d) Weather report including sea state, barometric pressure and cloud base.
- (e) Accuracy of your position and how obtained.
- (f) Is crew experienced in helo operations, date of last helicopter transfer.
- (g) Is a copy of IAMSAR Manual Vol III carried.
- (h) Agents name, postal address and contact number.
- (i) Personal details of patient (ensure personal papers carried)
 - (i) Name
 - (ii) Age
 - (iii) Sex
 - (iv) Nationality
 - (v) Passport or Seaman's book number
 - (vi) Vessel's last port of call
- (j) Air to Ground frequency for communications with helicopter, VHF CH 6 and/or 16

Note: Once assistance has been requested by a vessel's Master, RCC Australia will request the vessel to commence regular position reporting to RCC Australia. The Master of the vessel is required to ensure position reports, regular contact with RCC Australia and serviceability of the vessel's communications system is maintained.

4A. THE AUSTRALIAN SHIP REPORTING SYSTEM (AUSREP)

AUSREP (see AUSREP ship reporting instructions for the Australian Area dated 2012)

1. Masters should note that recent changes have been implemented to AUSREP including the use of shipboard AIS equipment to provide position reports:
 - (a) The preferred mode of communication for all reports (Sailing Plans, Position Reports, Deviation Reports and Final Reports) is Inmarsat-C. A master must make their ship available to be polled by AMSA using Inmarsat-C to obtain position reports. When Inmarsat-C polling cannot be used or when RCC Australia directs a Master, the Master must report positions using Inmarsat-C or HF DSC.
 - (b) When reporting via Inmarsat-C, terminals should be logged into LES 212 for Pacific Ocean Region and LES 312 for Indian Ocean Region using Special Access Code (SAC) 1243.
Note: If AUSREP reports are sent through other LES using (SAC) 1243, there is no guarantee that the message will be received by AMSA.
 - (c) If required to report manually, Masters are requested to send a Position Report each day at a convenient time nominated by the ship between 2200 UTC and 0800 UTC. The maximum time between any two reports is not to exceed 24 hours.
 - (d) Position reports obtained via the ship's AIS must be transmitted in accordance with SOLAS, Chapter 5, Regulation 19.2.4.

For information on REEFREP see *Notice to Mariners No 22*.

Purpose of the AUSREP System

2. AUSREP is a ship reporting system designed to contribute to safety of life at sea and is operated by the Australian Maritime Safety Authority (AMSA) through the Australian Rescue Coordination Centre (RCC Australia) in Canberra. Participation in AUSREP is mandatory for certain ships but other commercial ships visiting Australia or transiting Australian waters are encouraged to participate voluntarily. For further details on RCC Australia, see *Notice to Mariners No 4*.

3. AUSREP provides positional data on ships transiting Australia's region and allows the Rescue Coordination Centre to determine which ships could render assistance in the vicinity of SAR incidents. The search and rescue officers conducting such operations in the Australian region routinely use this facet of AUSREP. Given the expanse of Australia's search and rescue region, merchant ships are often the only resource available that can quickly respond to an incident.

Which ships should report to AUSREP

4. *The Commonwealth of Australia Navigation Act 1912 (Division 14 Part IV)* makes participation in AUSREP mandatory for certain ships. Under this *Act*, the following ships must report:
- (a) All Australian registered ships engaged in interstate or overseas trade and commerce, while in the AUSREP area.
 - (b) Ships not registered in Australia, but engaged in the coasting trade between Australia and an external territory, or between external territories, while in the AUSREP area.
 - (c) Ships not registered in Australia, but demised or as arranged under charter parties to charterers whose residences or principal places of business are in Australia, while in the AUSREP area.
 - (d) Foreign ships, other than the above mentioned ships, from their arrival at their first Australian port until their departure from their final Australian port. However, they are encouraged to participate from their entry into and final departure from the AUSREP area.
 - (e) Australian fishing vessels which are GMDSS compatible, fitted with SOLAS compliant AIS and proceeding on overseas voyages, while in the AUSREP area, but not including those ships operating from Queensland ports, which may call at ports in Papua New Guinea as an incidental part of their fishing operations. A definition of 'overseas voyage' is given in *Section 6(1) of the Navigation Act 1912*.

Voluntary Participation

5. Ships participating in AUSREP will have their positions plotted for search and rescue reasons. Not only does this enable the RCC to maintain a positive SAR watch on the ship but also allows for ships in the vicinity of search and rescue incidents to be determined. To assist AMSA in achieving its purpose Masters are strongly encouraged to report to AUSREP voluntarily even where it is not mandated. Such participation will enhance the safety of reporting ships and that of others operating in the Australian SRR.

Concept of the AUSREP System

6. Ships participating in AUSREP are provided with a positive SAR watch within the Australian Search and Rescue Region (SRR). This means that if a position report or final report is not received, within 24 hours of the last report, RCC Australia will initiate communication checks to establish the safety of the ship. These checks are aimed solely at establishing whether a ship and its crew are safe. The checks include direct communications with the ship, broadcasts to shipping and communications with owners, agents and/or charterers as necessary. If these checks are unsuccessful, then an air search may be started. As a positive system, it is vital that Masters comply with the defined procedures as closely as circumstances permit. The general sequence of actions is:
- (a) On sailing from an Australian port or on entering the AUSREP area from overseas a ship sends a Sailing Plan (SP).
 - (b) A computerised plot will be maintained of the ships position.
 - (c) Position Reports are obtained through the ship's automatic identification system (AIS) transmitter which must be operated in accordance with SOLAS V, Regulation 19.2.4.
 - (d) A Final Report (FR) is to be sent on arrival at the destination or on departure from the AUSREP area.

Primary Communications with RCC Australia

7. Ships participating in AUSREP are required to be GMDSS compliant and transmit position reports with fitted AIS as required by SOLAS Chapter 5, Regulation 19.2.4.

- (a) The primary means of communication with AUSREP for reporting of *Sailing Plans*, *Deviation Reports* and *Final Reports* is Inmarsat-C. Messages sent to AUSREP using special access code (SAC 1243) via the Perth LES (Pacific 212 or Indian 312 Ocean Region satellites) will be reverse charged to RCC Australia and are free of charge to the ship. When reporting to AUSREP, Masters should ensure that the ship's Inmarsat-C equipment remains active in the 'LOGIN' mode at all times.

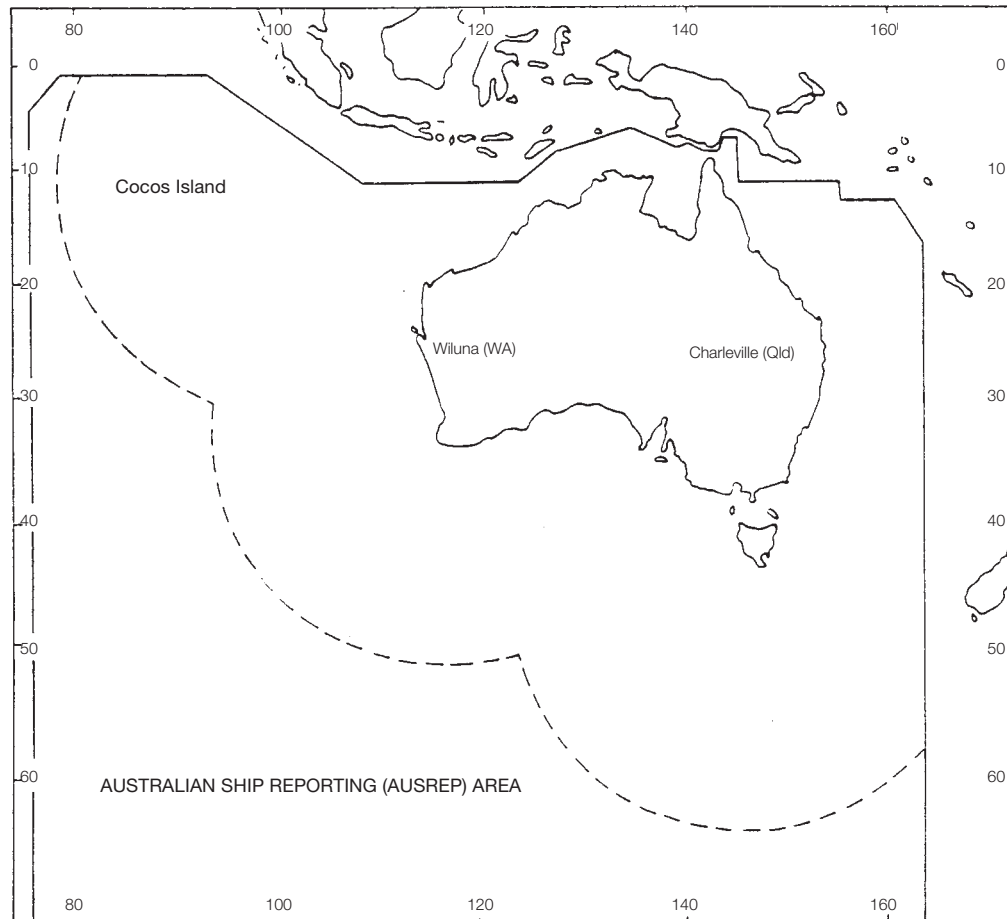
Note: If AUSREP reports are sent through other LES using (SAC) 1243, it is likely that the messages will not be received by RCC Australia and charges WILL apply to the ship.

- (b) *Position Reports* will be obtained via the ship's AIS which must be operated in accordance with SOLAS, Chapter 5, Regulation 19.2.4.

Alternative Communications for Sail Plan, Deviation Reports, Final Reports and Special Report Types

8. If for any reason communications are not possible via Inmarsat-C, the required information must be passed by alternative means to RCC Australia using one of the following:

- (a) HF DSC. Messages sent via the AMSA HF DSC network will be free of charge. Initial contact through the AMSA HF DSC station is made by using a DSC safety priority call to MMSI 005030001. The AUSREP message can then be passed on an appropriate RT frequency. All reports sent by voice should include the mandatory format fields including the identifying letter. Calls received by stations at Wiluna and Charleville are answered from the network control centre at RCC Australia. The Maritime Communications Station RCC Australia's callsign is VIC.
- (b) Email; rccaus@amsa.gov.au (ships are advised that email is a non - confirmed delivery communication mechanism and as such positive receipt cannot be guaranteed)



— — Depicts approximate radius of action for Australian based long range search aircraft

Types of AUSREP reports

9. Main Report Types

- (a) SP Sailing Plan
 (b) PR Position Report (these will be obtained automatically from the ship's AIS transmitter)
 (c) DR Deviation Report, where applicable
 (d) FR Final Report

10. These reports are sent using the IMO message format (see *para 37* for numbering and description of fields).

11. Special Report Types

11. Special Report Types

- (a) DG Dangerous Goods report
- (b) HS Harmful Substances report
- (c) MP Marine Pollutants report

See *Appendix A of AUSREP Booklet* for format of special reports.

12. Masters should advise RCC Australia, or the REEF CENTRE (if in the REEFVTS area) by using the special report types when:

- (a) damage, defects, deficiencies, or other limitations to the ship or its equipment will affect its operation and or seaworthiness; or
- (b) damage, defects, deficiencies, or other limitations to the ship or its equipment means that a loss of cargo or pollution from the ship is about to or likely to happen.

(Examples of such incidents include but are not limited to the following: failure or breakdown of steering gear, propulsion plant, electrical generating system, essential shipboard navigational aids, collision, grounding, fire, explosion, structural failure, flooding, cargo shifting.)

13. When making reports about the likelihood of a discharge, Masters should take into account the sea and wind state, and also traffic density in the area at the time and place of the incident.

REEFVTS Interaction

14. The following applies to ships transiting through the Great Barrier Reef and the Torres Strait:

- (a) Ships must report to the REEFVTS.
- (b) Ships participating in AUSREP will continue to transmit their AIS positions while transiting the REEFVTS area.
- (c) When a ship departs a port within the REEFVTS area and intends to report to AUSREP upon exiting the REEFVTS area, a Sailing Plan should be sent to RCC Australia within two hours of departure from the port.
- (d) When a ship departs the REEFVTS Area and is reporting to AUSREP, the ship's AIS will continue transmitting and be processed by AUSREP until the ship departs from the AUSREP Area, where the master must submit a FR.
- (e) Procedures for reporting to REEFVTS are provided in the Great Barrier Reef and Torres Strait Vessel Traffic Services (REEFVTS) User Guide available from AMSA and Maritime Safety Queensland offices. An electronic copy of the user manual is also located on the AMSA and MSQ websites.

Non Reporting to AUSREP (NOREP)

15. If the Master of a foreign ship departing on an overseas voyage from an Australian port does not intend sending AUSREP position reports, he must send a SP to RCC Australia and include the word NOREP in place of the "Date/Time of next report" in format field "N". Amplifying remarks may be included in field "X" if required.

16. Under this option RCC Australia will not undertake any "positive checks" regarding the ships safety. A NOREP ship must comply with the mandatory AIS transmission requirements as specified in SOLAS regulation 19.2.4. A NOREP ship must comply with the mandatory requirement to report to REEFREP when the ship enters the REEFREP area.

AUSREP Sailing Plan (SP)

17. When to send an AUSREP SP

The Sailing Plan (SP) contains information necessary for RCC Australia to initiate a vessel plot and gives an outline of the intended passage. You may send your AUSREP SP up to 24 hours prior to joining the system; but:

- (a) at ports within the REEFREP area the SP must be sent prior to departure; and at other Australian ports the SP may be sent up to 2 hours after departure,
- (b) when joining AUSREP at the ocean boundary the SP may be sent 24 hours prior to entering the area or up to 2 hours after crossing the boundary.

18. If the ship does not sail or crosses the boundary more than 2 hours after the time specified in the Sailing Plan, the Sailing Plan is deemed to be cancelled and another sent within 2 hours of the revised time.

19. A list of Australian Ports with the correct spelling can be found at Appendix D to the *AUSREP Handbook*

20. Format fields for your AUSREP SP

Mandatory fields: A, F, H, K, L, M, U, V

*

* Where polling is selected as the method of position reporting, Masters should include the word "POLL" in section N.

Additional fields: G, I, N, Q, R, X, (include if appropriate)

AUSREP Position Report (PR)

21. Position reports will be obtained using fitted automatic identification system (AIS) transmissions in accordance with SOLAS V, Regulation 19.2.4. Masters are required to ensure an operational AIS transmitter.

22. If a ship's AIS is not operational, then the deficiency must be reported. **A vessel with a faulty AIS will NOT be provided with a SAR watch.**

23. A Position Report transmitted by AIS should include the following information about the ship:

(a) Static information:

- (i) Identity, including IMO number, Call sign & name
- (ii) Length and beam
- (iii) Type of ship

(b) Dynamic:

- (i) Ship's position
- (ii) Time in UTC
- (iii) Course over ground
- (iv) Speed over ground
- (v) Navigational status (e.g. NUC, at anchor, etc. - manual input)

(c) Voyage related:

- (i) Ship's draught
- (ii) Destination and ETA

Note: Apart from having the ship's static data (such as ship name, MMSI, callsign, IMO number, length, breadth) correct, which assists in positive identification and safety of navigation, voyage-related data such as the destination port and ETA can also be very useful.

24. **UN/LOCODE:** IMO AIS guidance is to use the UN/LOCODE system to indicate the destination port. These UN/LOCODEs are listed in the Admiralty List of Radio Signals Volume 6 for each port. The country abbreviation is first, followed by the recognised abbreviation for the port. Examples include: AU SYD (Sydney), AU MEL (Melbourne), AU NTL (Newcastle), BD CGP (Chittagong), IN BOM (Bombay), NZ AKL (Auckland) and JP YOK (Yokohama). Using these codes allows systems ashore to filter destinations correctly, avoids confusion, and may assist authorities involved in search and rescue.

AUSREP Deviation Report (DR)

25. **When to send an AUSREP DR**

You must send a DR when you realise that your ship is more than two hours steaming from the position that would be predicted from the ship's voyage plan. A DR can also be sent when any other voyage details are altered (see additional fields in the *AUSREP Booklet*).

26. **Mandatory format fields for your AUSREP DR**

Mandatory fields: A, B, C, N, X

Additional fields: E, F, I, K, L, M should be included where appropriate. The reason for deviation should be included in Field X.

AUSREP Final report (FR)

27. The Final Report (FR) is used by RCC Australia to remove a ship from the plot.

(a) for ships enroute overseas and **departing the AUSREP area** send your AUSREP FR **at the AUSREP boundary**.

(b) for ships ending a voyage at an Australian port within the REEFREP area, at the last REEFVTS reporting point; for ships ending a voyage at any other Australian port, when within 2 hours steaming of the port or pilot station.

28. For ships **ending a voyage at any other Australian ports** send your AUSREP FR when your ship is within two hours steaming of the port or pilot station (see *Note* below).

Note: When the ship approaches an Australian destination and arrives at a position where VHF contact is made with the local harbour authority or pilot station, which under normal conditions is within two hours steaming of the pilotage, an FR is to be sent to RCC Australia.

29. **Format fields for your AUSREP FR.**

Mandatory fields: A, K.

Masters must ensure that an FR is always sent to RCC Australia to prevent unnecessary SAR action and a waste of valuable resources.

Overdue AUSREP reports

30. **Why you must send your PR and FR.** As AUSREP is a positive reporting system; if a PR (where polling not being used) or FR is not received by RCC Australia within two hours of the expected time, action is taken to ascertain the ship's whereabouts and confirm the safety of its crew. Masters should note that in some parts of the AUSREP area the ability to conduct an air search may be restricted by aircraft range limitations.

What if you cannot send your report?

31. If, for any reason, a Master is unable to transmit a PR due to a deficiency in the shipboard AIS, the master must report the deficiency. A failure of the ships AIS will result in termination of the SAR Watch.

32. If, for any reason, a Master is unable to send a FR they should attempt to pass a message through available communications, another ship or harbour or other shore authority as appropriate.

Action taken by RCC Australia

33. The action taken by RCC Australia if your report is not received as expected will depend on prevailing circumstances, but will generally include:

- (a) Internal checks to establish if your report has been received by RCC Australia.
- (b) For Inmarsat equipped ships, attempts to contact the ship directly.
- (c) Electronic communications, including email, Inmarsat and LRIT polling

- (d) Attempt to contact ship directly by calling on HF DSC to ship's MMSI.
- (e) An all station broadcast indicating concern for the safety of the ship due to non-receipt of the PR or FR
- (f) Extensive communication checks with overseas Coast Radio Stations, owners, agents and other ships are carried out to trace the last sighting or contact with the ship.
- (g) At twenty-one hours overdue an Urgency Signal PAN PAN will be broadcast.

34. By the time the report is twenty-four hours overdue, positive SAR action will have been started to locate the ship. This action may include the launching of search aircraft. *Note:* the resources available for an air search decrease with distance from an Australian base.

Reports to other reporting systems

35. Reports from ships to other reporting systems (AMVER, JASREP etc) will not be forwarded by RCC Australia. Ships are requested to pass these reports direct.

36. Masters of ships outside the AUSREP area are encouraged to make reports to AMVER by email addressed to amvermsg@amver.org or transmit Inmarsat-C message through TELENOR using Aussaguel LES (321) when in the Indian Ocean Region and Santa Paula LES (201) when in the Pacific Ocean Region to ensure the reports are received by AMVER.

Small Craft AUSREP

37. Eligibility

Small craft may use AUSREP provided:

- (a) The voyage is 200NM or more.
- (b) The voyage will take longer than 24 hours.
- (c) The appropriate communications equipment is carried.

36. Position reports must be transmitted via the vessel's AIS operated in accordance with SOLAS V, Regulation 19.2.4.

Further Information or Advice on AUSREP Procedures

38. Further information or advice on AUSREP procedures is available in the AUSREP (Ship reporting instructions for the Australian Region) handbook and copies of these instructions maybe obtained free of charge from:

AMSA – RCC Australia

Telephone +61 (0)2 6230 6880

Facsimile +61 (0)2 6230 6868

Postal Address GPO Box 2181

Canberra ACT 2601

Australia

Web site <http://www.amsa.gov.au/>

AMSA Offices in major ports

Regional Harbour Master Offices in Queensland Ports

IMO Message Format Field for AUSREP Reports

39. The message format fields listed below comply with *IMO Resolution A648(16) of 19 October 1989* and are described in a manner suitable for them to be used by AUSREP ship reporting systems.

A	(1) Ship name; (2) callsign; and (3) IMO number.
B	Date/Time of event (UTC).
C	Position (latitude and longitude in degrees and minutes) or when within a 2nm radius of a REEFREP reporting point, the name of that reporting point.
D	(Not to be used in AUSREP messages).
E	Course.
F	Speed (ship's anticipated average speed until next report in knots & tenths of knots).
G	Name of last non-Australian port of call.
H	Date/Time (UTC) and point of joining the AUSREP system. The point of joining must be either the Australian port the ship is departing from, or if joining from overseas, the latitude/longitude of crossing the AUSREP boundary.
I	Next non-Australian port of destination and estimated time of arrival at that port.
J	Coastal pilotage details: (1) Yes/No; (2) last name of Pilot; and (3) license number of pilot.
K	Date/Time (UTC) and point of exit from the AUSREP system (point of exit is either the latitude/longitude of crossing the AUSREP boundary or the Australian port to which the ship is bound).
L	Route information.
M	Radio communications arrangements. State in full: names of stations/frequencies guarded including MMSI and Inmarsat numbers (B,C,F77 etc.).
N	Use word "POLL" if the ship is to be polled by Inmarsat-C. If not, enter nominated Date/Time of next report (UTC) and reason why ship cannot be polled. Indicated in accordance with section 19.
O	Draught (fore and aft in metres and tenths of metres).
P*	Cargo information may be passed by non-voice means if required. (1) Normal name of the Cargo; and (2) indicate Yes or No if cargo is classified as hazardous.
Q*	Defects or other limitations such as damage, failure or breakdown affecting the safety of the ship, including any AIS malfunction
R*	Brief details of type of pollution lost overboard (oil, chemicals, etc) and also report if any pollution sighted.
S	Weather conditions in area.
T	Ship's agents.
U	(1) Ship type; (2) ship length (metres); and (3) gross tonnage.
V	Medical personnel carried.
W	Number of persons on board.
X	Remarks.

Note: *RCC Australia will only on-pass reports to AMVER whilst ship is reporting to AUSREP.*

Australian Maritime Safety Authority, Canberra.

(AA637472)

4B. Modernised Australian Ship Tracking and Reporting System (MASTREP)

1. In 2009, work commenced on identifying AMSA and Australia's vessel tracking and reporting needs for the future while considering the International Maritime Organization (IMO) published mandates of ship reporting requirements and the need for reduced reporting obligations on ships. The working groups determined that although AUSREP had served the needs of both the mariner and AMSA well, it was no longer as effective or efficient as it should be and a better system for today and the future was required. This was the catalyst for the design and subsequent development of what is to become the Modernised Australian Ship Tracking and Reporting System (MASTREP).

2. The transition to MASTREP will occur in three phases, with the first two phases focusing on maximising the use of new technology and minimising manual reporting requirements. Position reporting will be automated using the Automatic Identification System (AIS). This will alleviate the obligation for ships to provide 24 hourly position reports. In addition, the data in the system will be more accurate, as data will be fed into the system using AIS – either collected terrestrially or by satellite. Positional data will be updated at time intervals between five minutes and five hours depending on the location and source.

3. Greater visibility of vessels in Australia's Search and Rescue region will enhance the ability to prosecute a SAR incident, ensuring the most appropriate vessels will be tasked to respond.

4. The proposed third phase of the project will work towards the realisation of a single window reporting concept to streamline the current reporting processes used by ships to communicate relevant information to AMSA and other Australian authorities. This is in line with the principles contained in IMO FAL.5/Circular 36.

5. The transition from AUSREP to MASTREP has commenced with Phase 1 implemented in July 2012; Phase 2 in July 2013 and the proposed Phase 3 from late 2014. Further details are available at www.amsa.gov.au.

Australian Maritime Safety Authority, Canberra.

(AA637473)

4C. HF AND VHF MARINE RADIO SERVICES FOR SMALL CRAFT

1. HF distress and safety services are provided for non-SOLAS vessels through Limited Coast Radio Stations (LCRS) and Maritime Rescue Stations (MRS) in the Inshore Boating Radio Service. Navigation warnings will be broadcast twice daily and at other times if of an urgent nature. For broadcast areas see Auscoast Sea Area (ASA) Map (see page 31).

LIMITED COAST RADIO STATION FACILITIES AND FREQUENCIES

<i>Coast Radio Station</i>	<i>Callsign</i>	<i>Radiotelephone frequencies monitored</i>	<i>Navigation Warnings</i>	<i>Broadcast Times</i>	<i>AUSCOAST Sea Area</i>
Charleville ¹	Charleville Radio	4125, 6215, 8291 kHz and VHF Ch.16	8176 kHz and VHF Ch.67	1057 2357 EST (0057 1357 UTC)	B, C, D
Gladstone	Coast Radio Gladstone	4125, 6215, 8291 kHz and VHF Ch.16	8176 kHz and VHF Ch.67	0857 2157 EST (2257 1157 UTC)	A, B, C
Cairns	Coast Radio Cairns	4125, 6215, 8291 kHz and VHF Ch.16	8176 kHz and VHF Ch.67	0957 2257 EST (2357 1257 UTC)	H, A, B
Darwin	Coast Radio Darwin	4125, 6215, 8291 kHz and VHF Ch.16	8176 kHz and VHF Ch.67	1127 1927 CST (0157 0957 UTC)	G, H, A
Port Hedland	Coast Radio Port Hedland	4125, 6215, 8291 kHz and VHF Ch.16	8176 kHz and VHF Ch.67	1257 1657 WST (0457 0857 UTC)	F, G, H
Perth	Coast Radio Perth	4125, 6215, 8291 kHz and VHF Ch.16	8176 kHz and VHF Ch.67	1457 1857 WST (0657 1057 UTC)	E, F, G
Adelaide ³	Coast Radio Adelaide	4125, 6215, 8291 kHz and VHF Ch.16	8176 kHz and VHF Ch.67	1327 1727 CST (0357 1257 UTC)	D, E, F
Charleville ²	Charleville Radio	4125, 6215, 8291 kHz and VHF Ch.16	8176 kHz and VHF Ch.67	0757 1257 EST (0257 2157 UTC)	C, D, E
Hobart ³	Coast Radio Hobart	4125, 6215, 8291 kHz and VHF Ch.16	8176 kHz and VHF Ch.67	1557 EST (0557 UTC)	C, D, E

¹ Formerly Coast Radio Sydney HF services for New South Wales waters now provided from Charleville, Queensland, using callsign 'Charleville Radio'.

² Formerly Coast Radio Melbourne HF services for Victorian waters now provided from Charleville, Queensland, using callsign 'Charleville Radio'.

³ It is possible that changes may occur during 2012 regarding the provision of services for these stations, which will be notified via Notices to Mariners as they occur.

2. Certain areas will be monitored for VHF Ch 16 from 0600 to 1800 LT by AVCG/VMR/RVCP groups. In Queensland, Brisbane Harbour Control and Hay Point Reef Centre will monitor this frequency from 1800 to 0600. This night time service is an emergency watch only.

Australian Maritime Safety Authority, Canberra.

(AA571459, AA571460)

5. THE AMVER ORGANIZATION
(Automated Mutual-Assistance Vessel Rescue System)

1. As an aid to SAR efforts in offshore areas of the world, vessels of all nations are encouraged to send movement reports to the United States Coast Guard ship reporting system (AMVER). Appropriate positional information is made available to recognized SAR agencies of any nation for the assistance of persons in distress.

2. In the Australian SAR Area, AMVER does not supersede the AUSREP system. AMVER communications stations and message formats are described in *ALRS Vol 1 (Ship Reporting Systems)* and these should be used when outside the AUSREP area.

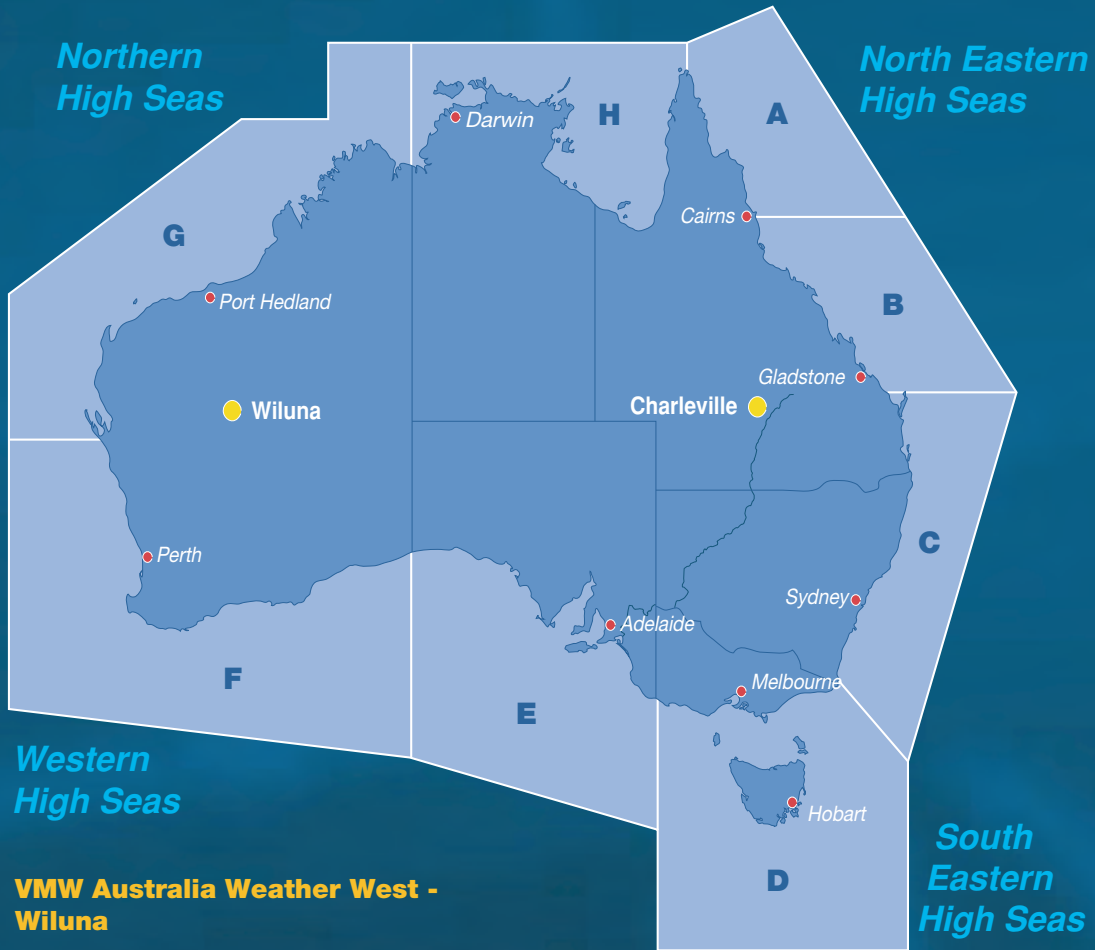
3. Further information may be obtained direct from:

AMVER Maritime Relations
Commandant (G-OPR)
USCG Battery Park Building
New York
New York 10004 - 1499
Telephone +1 212 6887764
Facsimile +1 212 6687684

Australian Maritime Safety Authority, Canberra.

(AA637472)

Austcoast Sea Areas



VMW Australia Weather West - Wiluna

Coastal Waters:

VMW Broadcasts coastal weather services for Australian coastal areas between the South Australia – Victoria border and Torres Strait in Queensland including all South Australia, Western Australia and Northern Territory zones

High Seas:

VMW broadcasts services for the Northern, Western and South Eastern high seas areas

VMW broadcasts on frequencies (kHz)

- 2056
- 4149
- 6230
- 8113
- 12356
- 16528

VMC Australia Weather East - Charleville

Coastal Waters:

VMC Broadcasts coastal weather services for Australian coastal areas between Cape Don in the Northern Territory and Eucla in Western Australia, including all Queensland, New South Wales, Victoria, Tasmania and South Australia zones

High Seas:

VMC broadcasts services for the Northern, North Eastern and South Eastern high seas areas

VMC broadcasts on frequencies (kHz)

- 2201
- 4426
- 6507
- 8176
- 12365
- 16546

6. GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS).

1. Australia's maritime area (search and rescue region, and Navarea X) has been declared GMDSS Sea Area A3, that is for distress and safety purposes, the area will be supported by both satellite and HF terrestrial radio services. The AMSA GMDSS HF DSC network employing stations at Wiluna and Charleville, and a network control site at RCC Australia provides HF DSC and follow-on communications for distress and safety communications.

2. Non-SOLAS vessels may choose to use safety services through Limited Coast Radio Stations (LCRS) and Maritime Rescue Stations (MRS) in the Inshore Boating Radio Service.

Overview of GMDSS Services in Australia

3. Australia operates an Inmarsat Land Earth Station (LES), located in Perth and linked to both the Pacific Ocean Region (POR) and Indian Ocean Region (IOR) satellites. Associated with the Perth LES, is the Burum LES in the Netherlands. Communications via these satellites include distress priority channels and a SafetyNET service for Maritime Safety Information (MSI) using enhanced group calling (EGC). The SafetyNET service enables vessels to automatically receive MSI appropriate to their area of operation. Details of MSI promulgation are specified in the next section. Further information on GMDSS can be obtained from the Australian GMDSS Handbook.

4. Australia is associated with the Cospas-Sarsat system as a Ground Segment Provider. This satellite system is designed to assist search and rescue operations using EPIRBs operating on 406 MHz, and providing alert and location data to rescue co-ordination centres (RCCs). The regional ground segment includes satellite data receiving antennas and processing equipment located at Albany (Western Australia), Bundaberg (Queensland) and Wellington (New Zealand). These provide data to the Mission Control Centre located at the RCC in Canberra.

5. HF DSC distress and safety services are provided by the AMSA network with stations at Wiluna (WA) 26° 20'.45 S 120° 33'.40 E and Charleville (QLD) 26° 19'.83 S 146° 15'.85 E. The station/network identifier is *RCC Australia* using the callsign VIC and MMSI number 005030001. See the AUSREP Map *page 24* for station locations.

6. The network provides continuous watch on HF Digital Selective Calling (DSC). The following HF DSC distress and safety channels are guarded: 4207.5, 6312.0, 8414.5, 12577.0 and 16804.5 kHz.

7. It should be noted that the AMSA HF DSC network can only be accessed by a DSC call. HF voice and NBDP are available in the 4, 6, 8, 12 and 16 MHz bands for follow-on communications after an initial DSC call. **No aural watch** is kept on HF radio telephony distress and safety frequencies. Broadcast of MSI for SOLAS vessels is via Inmarsat SafetyNET.

8. RCC Australia will continue to make HF radiotelephone distress and safety broadcasts for search and rescue coordination purposes. Vessels fitted with MF/HF DSC watchkeeping receivers are required to continually maintain a DSC watch whilst at sea on 2187.5 kHz for ship to ship alerting and 8414.5 kHz as well as at least one of the distress and safety DSC frequencies 4207.5, 6312, 12577 and 16804.5 kHz appropriate to the time of day and the geographic position of the ship. This watch may be kept by means of a scanning receiver. Broadcasts on radiotelephone frequencies will be preceded by a DSC announcement.

9. Queries on any aspect of GMDSS may be addressed to:
 General Manager
 Emergency Response Division, AMSA
 GPO Box 2181
 Canberra
 ACT 2601.

Australian Maritime Safety Authority, Canberra.

(AA571460)

7. MARITIME SAFETY INFORMATION

1. Maritime Safety Information (MSI) such as navigational warnings are issued by the Rescue Coordination Centre Australia (RCC Australia), part of the Australian Maritime Safety Authority (AMSA). Warnings are broadcast on the Inmarsat-C Enhanced Group Call (EGC) system. State Limited Coast Radio Stations may broadcast navigation warnings for their areas on 8176 kHz (check with local State/Territory authorities for schedules http://www.dpi.wa.gov.au/mediaFiles/mar_changes_to_radios.pdf). Current MSI can also be obtained from the AMSA Internet web site located at www.amsa.gov.au. Warnings are designed to give the mariner information relating to dangers and aids to navigation. Many warnings are of a temporary nature, but others may remain in force for several weeks and may be superseded by *Notices to Mariners*.

2. Information contained in radio warnings is primarily to assist mariners up to the entrance of ports. Information of a less urgent nature, and matters within harbour limits will be promulgated initially as VHF broadcasts from port authorities and/or *Notices to Mariners*. Local warnings of a more important nature, such as port closures, leading light failures or warnings which are considered by a port authority as requiring wider promulgation than the port broadcast, may be issued by RCC Australia as an AUSCOAST warning through the Inmarsat-C EGC system.

3. Vessels reporting malfunctions of navigational aids to RCC Australia are requested to provide the following information, where applicable:

- (a) Distance from aid and time.
- (b) Visibility at time and general weather.
- (c) Radar band in use (for reports concerning RACONS).

4. RCC Australia issues two main types of warnings, coastal warnings and long range warnings, within a system intended to align, as closely as possible with World Wide Navigational Warning Service and Inmarsat recommendations.

Coastal Warnings

5. Two types of coastal warnings are issued by RCC Australia:

- (a) Coastal Navigational Warnings (AUSCOAST series).
- (b) Sea Safety Messages (SSM series).

6. Warnings on the Inmarsat-C EGC system are broadcast to defined geographical areas as indicated in *Notice to Mariners No 8*.

7. Inmarsat-C equipped vessels are advised to ensure that they log into either the Pacific Ocean Region (POR) or the Indian Ocean Region (IOR) satellite and that positional information is regularly updated to ensure warnings are received in good time. For further EGC information and guidance see *Notice to Mariners No 8*. Warnings will be broadcast in English and where possible will use terminology based on the standard marine vocabulary. International abbreviations are used when necessary.

Auscoast Warnings

8. These are important navigational warnings, prefixed AUSCOAST and numbered consecutively on an annual basis. They are broadcast for as long as the information is valid, or until it is made available by other means, such as a *Notice to Mariners*. Warnings concerning navigational aids inside the area depicted in the accompanying diagram, except Global Navigation Satellite Systems (GNSS), will be issued as AUSCOAST warnings. AUSCOAST warnings transmitted via Inmarsat-C EGC are available via the POR and IOR satellites.

9. Cancellations of AUSCOAST warnings will be broadcast once only on voice frequencies at the first scheduled broadcast time. Cancellation under the Inmarsat-C system will be once only on receipt.

Sea Safety Messages

10. These are issued to cover dangers such as floating objects etc, and are normally broadcast for a defined period (unless updated positions are received). Messages are prefixed SSM with an annual sequential number. Sea Safety Messages transmitted via Inmarsat-C EGC are available via the POR satellite for Auscoast Areas A-D and via POR and IOR for Auscoast Areas E-H as indicated in *Notice to Mariners No 8*.

Weapons Practice Warnings

11. As clear range procedures are followed no broadcast warnings will be issued in respect of weapons firing practices in those areas depicted in *Notice to Mariners No 9*. Major exercises will be the subject of special warnings. Vessels approaching weapons practice areas are requested to maintain a radio listening watch.

Long Range Navigational Warnings (NAVAREA X)

12. Under the World Wide Navigational Warnings Service, Australia is the area Coordinator for NAVAREA X. NAVAREA X warnings are promulgated on Inmarsat-C on both the POR and IOR satellites.

13. NAVAREA X is depicted on the chartlet (see *page 35*) titled Areas Covered by Long Range Navigational Warnings.

Subject matter for NAVAREA X warnings

14. NAVAREA X warnings will only be issued in respect of navigational aids or dangers outside the Australian coastal areas depicted in the diagram; except that aids such as GNSS are also issued as NAVAREA X warnings.

15. NAVAREA X warnings are broadcast on the POR and IOR Inmarsat-C EGC satellite systems. NAVAREA X warnings transmitted under the Inmarsat-C EGC system will continue to be broadcast in brief text form for as long as the information is valid (or promulgated by other means).

16. Cancellations of warnings on the Inmarsat-C EGC system will be broadcast once only on receipt.

Definitions of Terms Used in Navigation Warnings

- (a) **Station** - The authorised and exact location of a navigational aid.
- (b) **Established in position** - Any type of aid placed in operation for the first time at a given station.
- (c) **Re-established in position** - Any type of aid placed in operation at a station at which a similar type of aid with identical characteristics had been previously established, but subsequently destroyed, withdrawn or discontinued.
- (d) **Unlit** - When a light is out because of defective equipment, or any other unintentional or deliberate occurrence, and it is intended to restore it to normal as soon as practicable.
- (e) **Unreliable** - When an aid of any type is not exhibiting its correct characteristic and it is intended to restore it to normal as soon as practicable.
- (f) **Reduced power** - When an aid of any type is not operating at its correct power, but is exhibiting its correct characteristic, and it is intended to restore it to normal as soon as practicable.

- (g) **Off station** - When a floating aid is adrift, missing or out of position and it is intended to replace it as soon as practicable.
- (h) **Altered** - When the characteristics or structure of any aid have been altered, without changing the type of aid or its station.
- (i) **Altered in position** - When a change is made to the station of an aid, ie. its location, without changing the type of aid, character or structure.
- (j) **Destroyed** - Any type of aid damaged so as to no longer be of use as a navigational aid, but remnants of the structure may remain.
- (k) **Restored to normal** - Any type of aid which had been previously "unlit", "irregular", "reduced power" or "inoperative" which has been serviced and now exhibits its correct characteristic or power.
- (l) **Replaced in position** - A floating aid previously described as "off station" or "temporarily withdrawn" is returned to its correct station.
- (m) **Temporarily replaced by** - When any aid is discontinued, withdrawn or off station and another aid of a different type or characteristic is immediately established at the same station.
- (n) **Temporarily removed** - When a floating aid has been entirely removed from its station and no similar aid left in its place, but intended to re-establish the aid in the near future.
- (o) **Inoperative** - When a sound signal or radio beacon service is silent because of defective equipment or maintenance or any other unintentional or deliberate occurrence, and it is intended to restore it to normal as soon as practicable.
- (p) **Permanently withdrawn** - When a floating aid has been entirely removed from its station, with no similar aid left in its place and it is not intended to re-establish that aid at that station in the future.
- (q) **Permanently discontinued** - When any aid, including a sound signal or radio beacon service, but excluding a floating aid, is removed from a station because it is no longer required.

Reprints of Radio Navigational Warnings

17. AUSCOAST and NAVAREA X are published in *Section III of Notices to Mariners* and those warnings which may remain in force for more than four weeks are promulgated in *Section I of Notices to Mariners*.

18. NAVAREA XIV warnings are also included in *Section III of Notices to Mariners*.

19. Warnings on the positions of mobile drilling rigs are summarised in *Section III of Notices to Mariners*. This summary is updated weekly by RCC Australia but mariners are reminded that drill rig positions given in this summary may have been superseded by an updated warning. Rigs in transit are not subject to radio navigation warnings.

20. If the information is still valid, AUSCOAST and NAVAREA X warnings are cancelled on receipt of *Notices to Mariners*.

21. For mariners who have access to e-mail or the Internet, a list of current navigation warnings is available from the following address:

ausmsi@amsa.gov.au

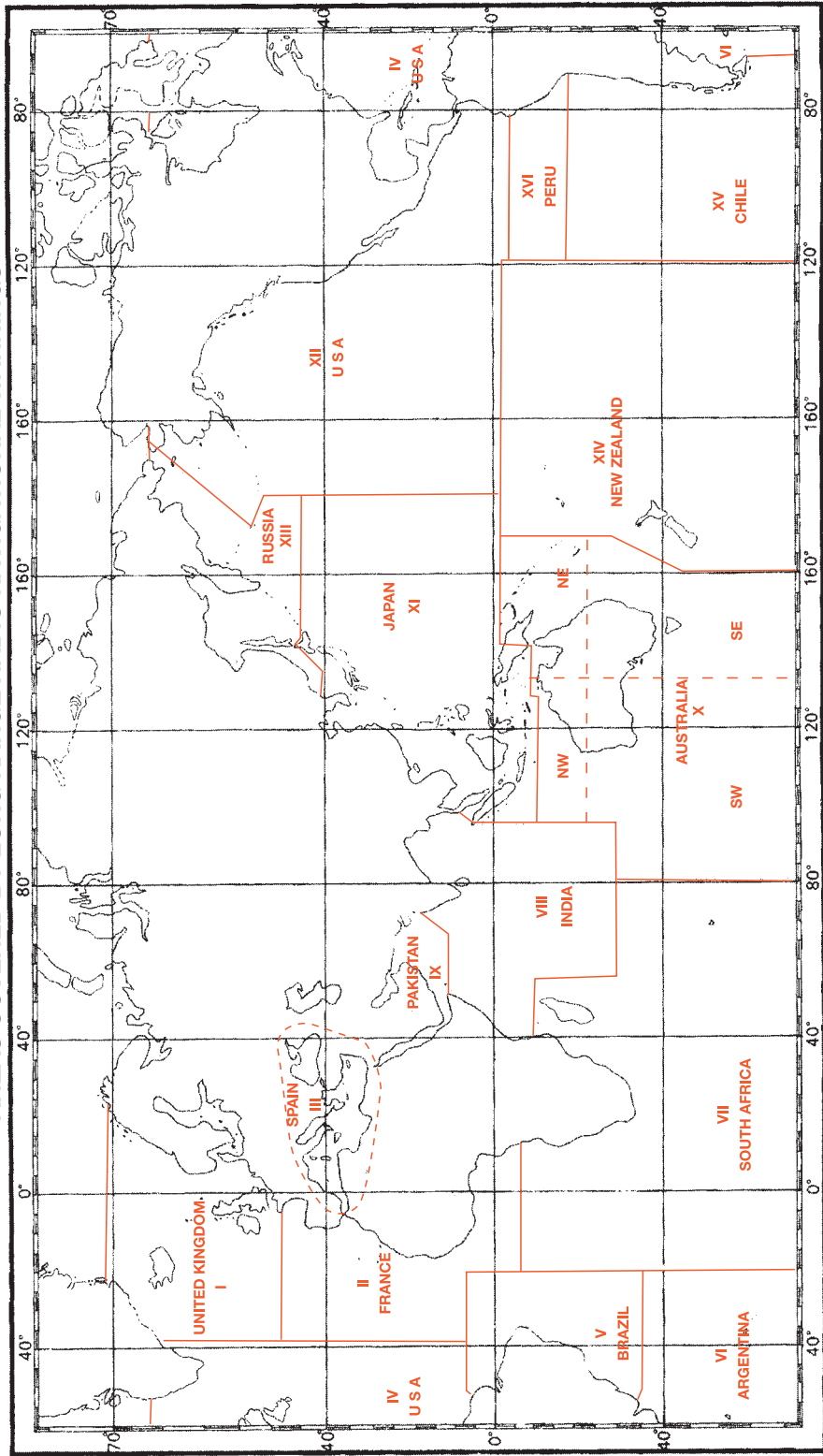
and over the Internet from the AMSA web site at:

http://www.amsa.gov.au/Search_and_Rescue/Distress_and_Safety_Communications/Maritime_Safety_Information.asp

Australian Maritime Safety Authority, Canberra.

(AA637472)

AREAS COVERED BY LONG RANGE RADIO NAVIGATIONAL WARNINGS



DO 390

8. INMARSAT-C EGC SYSTEM

1. Navigational Warnings and MSI issued by RCC Australia and the Bureau of Meteorology are promulgated using the Inmarsat-C SafetyNET system. To ensure reception of MSI Inmarsat-C Ship Earth Stations (SES) must be correctly set-up and it is recommended that SES remain in operation whilst in port. It is also recommended that the latest version of SES software is installed. All users are invited to provide feedback on any aspect of the system with a view to improving the MSI services.
2. All Australian coastal navigation warnings will be promulgated via the POR and IOR satellites. Positional information should be regularly updated if the SES is not provided with automatic position information by an interface with navigational equipment. When a position has not been updated for more than 12 hours the SES will print all messages with priorities higher than routine for the entire ocean region.
3. Under the SafetyNET EGC system warnings are directed to specific geographical areas. Mariners must ensure that their SES is correctly configured to receive Navarea X and the alphabetical Coastal Warning Areas which are depicted in the accompanying diagram (see *page 37*).
4. NAVAREA X and AUSCOAST warnings are issued by RCC Australia immediately on receipt of the information, and then repeated at the scheduled times of 0700 and 1900 UTC. A scheduled broadcast may not occur at precisely 0700 UTC or 1900 UTC, so it is recommended that the SES remains correctly configured until at least 40 minutes after the scheduled time. An SES will not display a navigation warning again, if it was previously received error free. However, if RCC Australia has to resubmit a message to the LES for any reason, the SES will treat it as a new message and display it on receipt.
5. When configuring the SES it should be noted that RCC Australia and the Bureau of Meteorology will utilise the following:
 - (a) Coastal Warning Areas as per the figure.
 - (b) Navigational Warnings for Coastal (AUSCOAST) Warnings.
 - (c) Additional Navigational Warnings for local (SSM) warnings.
 - (d) SAR for search and rescue messages.
 - (e) Meteorology Forecasts for Bass Strait weather.

Australian Maritime Safety Authority, Canberra.

(AA571460)

9. FIRING PRACTICE AND EXERCISE AREAS

General

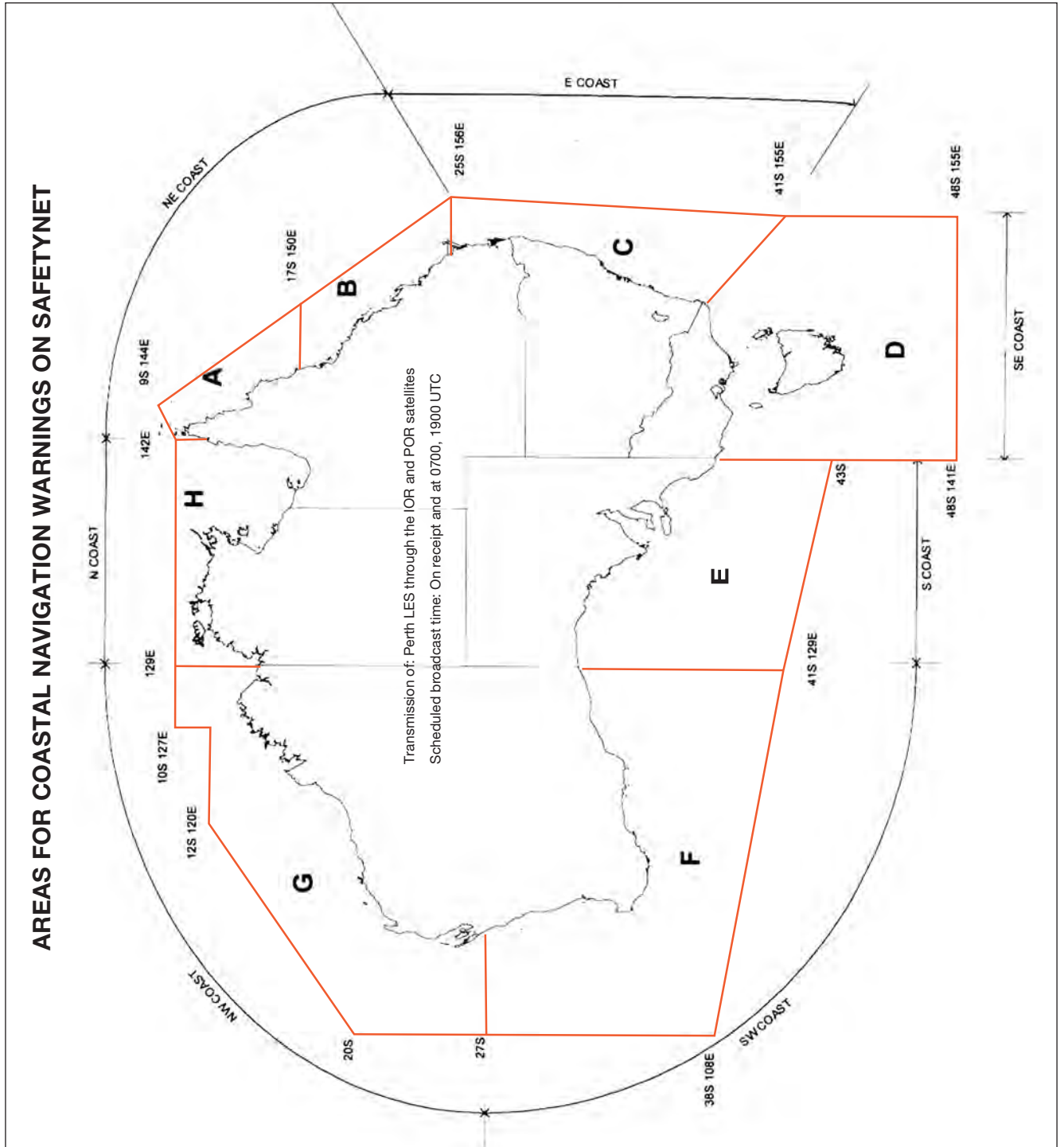
1. This *Notice* contains the firing practice areas controlled by the Royal Australian Navy and declared under *Sub-Regulation 49(1) of Defence Force Regulations*, together with the appropriate Army and Air Force firing practice areas over the sea.
2. Firing practice areas may be selected anywhere and details are published in the *Australian Government Gazette* and the *Designated Airspace Handbook*.
3. The areas are listed in numerical order by States using standard reference numbers.
4. In view of the responsibility of range authorities to avoid accidents, limits of practice areas are not shown on charts and descriptions of areas will not appear in the *Sailing Directions*. However, beacons, lights and marking buoys, which may be of assistance to the mariner or targets which might be a danger to navigation, will appear on charts and, when appropriate, will be mentioned in the *Sailing Directions*.
5. Lights will be mentioned in the *Admiralty List of Lights and Fog Signals Vol K*.

Definitions

6. **Restricted Area (R-)**. An area of defined dimensions within which certain restrictions are applied to aircraft operations. When shown as an *R area* in *Notices to Mariners*, the air activity extends to sea level and the nature of the activity is such that dangers to maritime traffic may exist at specified times within the area defined in *Notices to Mariners*.
7. **Prohibited Area (P-)**. An area of defined dimensions within which ships are not permitted at any time under any circumstances.
8. **Surface Restricted Area (SR-)**. A surface area of defined dimensions within which activities dangerous to maritime traffic may exist at specified times. The restriction is applicable to maritime traffic only.

Areas

9. The limits of all areas in this *Notice* are laid down in writing, numerically and graphically on chartlets by States.
10. Naval firings outside the areas listed in this publication are approved by the Department of Defence (Navy Office) from time to time.



Notification of Warnings

11. Warnings are promulgated as *Notices to Airmen (NOTAM)* originated by the RAN and RAAF.
12. Visual warnings will be used as follows:
- (a) *Ships* - ships engaged in firing practice fly a red flag by day.
 - (b) *Range Craft* - all safety craft, target towers or control launches for radio controlled targets will display for identification the following:
 - (i) A large red flag at the masthead.
 - (ii) A painted canvas strip 1.8m x 0.9m (6 x 3 feet) with red and white or red and yellow checks in 0.3m (1 ft) squares on the foredeck or cabin roof.
 - (iii) Vessels should comply with requests made by Range Safety Craft.
13. Ships and aircraft carrying out night exercises may illuminate with bright white flares.

Vertical limits and Hours of Operations.

14. Lower and upper vertical limits are promulgated as above mean sea level when at or below the transition altitude or as a flight level when above the transition altitude. SFC means the surface of the ground or water. NOTAM indicates that the vertical limits will be notified by NOTAM. The following code applies for hours of operation:

D	Daily
H24	Continuously
W	Monday to Friday
Mo,Tu,We,Th,Fr,Sa,Su	Days of the week
JO	Monday to Friday (except public holidays)
HJ	During daylight hours
Z	Universal co-ordinated time
L	Local time
OT	Other times.

Types of Firing Practices.

15. The principal types of practices carried out are:
- (a) *Bombing practice from aircraft* - warning signals usually shown.
 - (b) *Air to air, and air to sea or ground firing* - the former is carried out by aircraft at a large white or red sleeve, a winged target, or flag towed by another aircraft moving on a steady course. The latter is carried out from aircraft at towed or stationary targets on sea or land, the firing taking place to seaward in the case of those on land.
 - (c) *Anti-aircraft firing* - this may be from AA guns or machine guns at a target towed by an aircraft as in *para 15(b)*, a pilotless target aircraft or, at balloons or kites. Practice may take place from shore batteries or ships
 - (d) *Firing from shore batteries or ships* - at fixed or floating targets.
 - (e) *Remote controlled craft* - these are 6.4 metre surface craft, orange in colour and carry no distinctive shapes or lights. They are however, fitted with navigation lights appropriate to their size in accordance with the *Regulations for Preventing Collisions at Sea, 1972*. Such craft are remotely controlled from helicopters, ships and occasionally from the shore.
 - (f) *Rocket and guided weapons firing* - these may take the form of *paras 15 (b), (c) or (d)*. All such firings are conducted under Clear (*Air and Sea*) *Range Procedure*. Devices are generally incorporated whereby the missiles may be destroyed should their flight be erratic.

Cautions

16. The absence of warning signals cannot be accepted as evidence that a practice does not exist.
17. The range authorities are responsible for ensuring that there should be no risk of damage from falling shell-splinters, bullets, etc, to any vessel which may be in the practice area.
18. If, however, a vessel finds herself in an area where practice is in progress she should maintain her course and speed, but, if she is prevented from doing this by the exigencies of navigation, it would assist the range authority if she would endeavour to clear the area at the earliest possible moment. Furthermore, if projectiles or splinters are observed to be falling near the vessel, all persons on board should take cover.
19. Fishermen operating in the vicinity of firing practice and exercise areas may occasionally bring unexploded missiles or portions of them to the surface in their nets or trawls. These objects may be dangerous and should be treated with great circumspection and jettisoned immediately, no attempt being made to tamper with them or bring them back for inspection by Navy authorities.

RESTRICTED AND DANGER AREAS WITH ASSOCIATED AIRSPACE (Note: positions are referred to WGS84)

NEW SOUTH WALES

SR050 Broken Bay

Nature of Activity Naval mine laying and sweeping

Vertical Limits Nil

Chart Aus 197

- (a) 33° 34' 38" S 151° 18' 30" E
- (d) 33° 31' 44" S 151° 24' 14" E
- (g) 33° 37' 35" S 151° 28' 00" E
- (j) 33° 34' 45" S 151° 19' 44" E.

Controlling Authority Navy Fleet HQ Potts Point

Times of Use H24

Chartlet 2

- (b) 33° 32' 54" S 151° 18' 39" E
- (e) 33° 31' 09" S 151° 25' 15" E
- (h) 33° 37' 35" S 151° 20' 30" E
- (c) 33° 32' 52" S 151° 20' 45" E
- (f) 33° 31' 09" S 151° 32' 24" E
- (i) 33° 35' 04" S 151° 20' 03" E

SR051 Jervis Bay*Nature of Activity* Naval mine laying and sweeping*Controlling Authority* Navy Fleet HQ Potts Point*Vertical Limits* Nil*Times of Use* H24*Chart* Aus 193*Chartlet* 1

(a) 35° 04' 24" S 150° 41' 50" E

(b) 35° 00' 32" S 150° 43' 27" E

(c) 35° 01' 05" S 150° 46' 00" E

(d) 35° 04' 52" S 150° 46' 26" E

(e) 35° 05' 38" S 150° 48' 00" E

(f) 35° 05' 45" S 150° 48' 26" E

(g) 35° 05' 45" S 150° 55' 09" E

(h) 35° 10' 02" S 150° 51' 32" E.

YMMM/R452 Beecroft Head*Nature of Activity* Military flying/non-flying*Controlling Authority* Navy Fleet HQ Potts Point*Vertical Limits* NOTAM*Times of Use* NOTAM*Chart* Aus 808*Chartlet* 1

(a) 34° 59' 00" S 151° 07' 00" E

(b) 35° 08' 54" S 151° 07' 00" E

(c) 35° 05' 27" S 150° 48' 56" E

(d) 35° 05' 27" S 150° 47' 12" E

(e) 35° 06' 06" S 150° 42' 48" E

(f) 35° 04' 20" S 150° 42' 15" E

(g) 35° 02' 18" S 150° 42' 09" E

(h) 35° 00' 00" S 150° 44' 00" E

(i) 35° 01' 24" S 150° 47' 15" E

(j) 35° 01' 24" S 150° 50' 24" E.

YMMM/R453A Tasman Sea*Nature of Activity* Military flying*Controlling Authority* Navy Fleet HQ Potts Point*Vertical Limits* NOTAM*Times of Use* NOTAM*Chart* Aus 4643*Chartlet* 1

34° 59' 59" S 150° 49' 53" E, thence the minor arc of a circle of 15NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 34° 57' 30" S 150° 50' 14" E, 34° 57' 24" S 150° 59' 58" E, thence the minor arc of a circle of 23NM radius centred on Nowra Tacan, to 35° 12' 02" S 150° 53' 14" E 35° 03' 04" S 150° 40' 06" E, thence the minor arc of a circle of 9NM radius centred on Nowra Tacan, to 34° 59' 11" S 150° 42' 37" E.

YMMM/R453B Tasman Sea*Nature of Activity* Military flying*Controlling Authority* Navy Fleet HQ Potts Point*Vertical Limits* NOTAM*Times of Use* NOTAM*Chart* Aus 4643*Chartlet* 1

35° 19' 57" S 150° 34' 29" E, thence the minor arc of a circle of 23NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 12' 02" S 150° 53' 14" E, 35° 03' 04" S 150° 40' 06" E, thence the minor arc of a circle of 9NM radius centred on Nowra Tacan, to 35° 05' 59" S 150° 33' 00" E.

YMMM/R453C Tasman Sea*Nature of Activity* Military flying/non-flying*Controlling Authority* Navy Fleet HQ Potts Point*Vertical Limits* NOTAM*Times of Use* NOTAM*Chart* Aus 4643*Chartlet* 1

34° 57' 02" S 151° 30' 23" E, thence the minor arc of a circle of 48NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 13' 27" S 151° 26' 58" E, 35° 05' 04" S 150° 58' 14" E, thence the minor arc of a circle of 23NM radius centred on Nowra Tacan, to 34° 57' 24" S 150° 59' 58" E.

YMMM/R453D Tasman Sea*Nature of Activity* Military flying/non-flying*Controlling Authority* Navy Fleet HQ Potts Point*Vertical Limits* NOTAM*Times of Use* NOTAM*Chart* Aus 4643*Chartlet* 1

35° 13' 27" S 151° 26' 58" E, thence the minor arc of a circle of 48NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 28' 00" S 151° 16' 47" E, 35° 12' 02" S 150° 53' 14" E, thence the minor arc of a circle of 23NM radius centred on Nowra Tacan, to 35° 05' 04" S 150° 58' 14" E.

YMMM/R453E Tasman Sea*Nature of Activity* Military flying/non-flying*Controlling Authority* Navy Fleet HQ Potts Point*Vertical Limits* NOTAM*Times of Use* NOTAM*Chart* Aus 4643*Chartlet* 1

35° 28' 00" S 151° 16' 47" E, thence the minor arc of a circle of 48NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 38' 38" S 151° 01' 20" E. 35° 16' 58" S 150° 45' 59" E, thence the minor arc of a circle of 23NM radius centred on Nowra Tacan, to 35° 12' 02" S 150° 53' 14" E.

YMMM/R453F Tasman Sea*Nature of Activity* Military flying/non-flying*Controlling Authority* Navy Fleet HQ Potts Point*Vertical Limits* NOTAM*Times of Use* NOTAM*Chart* Aus 4643*Chartlet* 1

35° 38' 38" S 151° 01' 20" E, thence the minor arc of a circle of 48NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 44' 53" S 150° 37' 10" E, 35° 19' 57" S 150° 34' 29" E, thence the minor arc of a circle of 23NM radius centred on Nowra Tacan, to 35° 16' 58" S 150° 45' 59" E.

YMMM/R453G Tasman Sea*Nature of Activity* Military flying/non-flying*Controlling Authority* Navy Fleet HQ Potts Point*Vertical Limits* NOTAM*Times of Use* NOTAM*Chart* Aus 4643*Chartlet* 1

34° 56' 32" S 151° 59' 35" E, thence the minor arc of a circle of 72NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 21' 23" S 151° 54' 38" E, 35° 13' 27" S 151° 26' 58" E, thence the minor arc of a circle of 48NM radius centred on Nowra Tacan, to 34° 57' 02" S 151° 30' 23" E.

YMMM/R453H Tasman Sea*Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 4643

35° 21' 23" S 151° 54' 38" E, thence the minor arc of a circle of 72NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 43' 14" S 151° 39' 32" E, 35° 28' 00" S 151° 16' 47" E, thence the minor arc of a circle of 48NM radius centred on Nowra Tacan, to 35° 13' 27" S 151° 26' 58" E.

Controlling Authority Navy Fleet HQ Potts Point*Times of Use* NOTAM*Chartlet* 1**YMMM/R453J Tasman Sea***Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 4643

35° 43' 14" S 151° 39' 32" E, thence the minor arc of a circle of 72NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 59' 23" S 151° 16' 13" E, 35° 38' 38" S 151° 01' 20" E, thence the minor arc of a circle of 48NM radius centred on Nowra Tacan, to 35° 28' 00" S 151° 16' 47" E.

Controlling Authority Navy Fleet HQ Potts Point*Times of Use* NOTAM*Chartlet* 1**YMMM/R453K Tasman Sea***Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 4643

35° 59' 23" S 151° 16' 13" E., thence the minor arc of a circle of 72NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 36° 08' 50" S 150° 39' 46" E, 35° 44' 53" S 150° 37' 10" E, thence the minor arc of a circle of 48NM radius centred on Nowra Tacan, to 35° 38' 38" S 151° 01' 20" E.

Controlling Authority Navy Fleet HQ Potts Point*Times of Use* NOTAM*Chartlet* 1**YBBBB-YMMM/R453L Tasman Sea***Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 4643

34° 56' 01" S 152° 25' 27" E, 35° 18' 59" S 152° 55' 50" E, thence the minor arc of a circle of 120NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 36' 56" S 152° 50' 15" E, 35° 21' 23" S 151° 54' 38" E, thence the minor arc of a circle of 72NM radius centred on Nowra Tacan, to 34° 56' 32" S 151° 59' 35" E.

Controlling Authority Navy Fleet HQ Potts Point*Times of Use* NOTAM*Chartlet* 1**YBBBB-YMMM/R453M Tasman Sea***Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 4643

35° 36' 56" S 152° 50' 15" E, thence the minor arc of a circle of 120NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 36° 13' 30" S 152° 25' 29" E, 35° 43' 14" S 151° 39' 32" E, thence the minor arc of a circle of 72NM radius centred on Nowra Tacan, to 35° 21' 23" S 151° 54' 38" E.

Controlling Authority Navy Fleet HQ Potts Point*Times of Use* NOTAM*Chartlet* 1**YBBBB-YMMM/R453N Tasman Sea***Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 4643

36° 13' 30" S 152° 25' 29" E, thence the minor arc of a circle of 120NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 36° 40' 48" S 151° 46' 21" E, 35° 59' 23" S 151° 16' 13" E, thence the minor arc of a circle of 72NM radius centred on Nowra Tacan, to 35° 43' 14" S 151° 39' 32" E.

Controlling Authority Navy Fleet HQ Potts Point*Times of Use* NOTAM*Chartlet* 1**YBBBB-YMMM/R453P Tasman Sea***Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 4643

36° 56' 43" S 150° 45' 03" E, thence the minor arc of a circle of 120NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 36° 40' 48" S 151° 46' 21" E, 35° 59' 23" S 151° 16' 13" E, thence the minor arc of a circle of 72NM radius centred on Nowra Tacan, to 36° 08' 50" S 150° 39' 46" E.

Controlling Authority Navy Fleet HQ Potts Point*Times of Use* NOTAM*Chartlet* 1**YMMM/R485A Tasman Sea***Nature of Activity* Military flying*Vertical Limits* SFC-1 500*Chart* Aus 4643

(a) 34° 26' 37" S 151° 09' 46" E (b) 34° 06' 00" S 151° 19' 43" E (c) 34° 06' 00" S 151° 45' 06" E
thence the minor arc of a circle of 30NM radius centred on Sydney DME (33° 56' 34" S 151° 10' 51" E) to (a).

Controlling Authority Navy Fleet HQ Potts Point*Times of Use* NOTAM*Chartlet* 1**YBBBB-YMMM/R485B Tasman Sea***Nature of Activity* Military flying*Vertical Limits* SFC-7 500*Chart* Aus 4643

(a) 34° 30' 00" S 151° 51' 35" E (b) 34° 30' 00" S 151° 08' 07" E (c) 34° 26' 37" S 151° 09' 46" E
thence the minor arc of a circle of 30NM radius centred on Sydney DME (33° 56' 34" S 151° 10' 51" E) to
(d) 34° 06' 00" S 151° 45' 06" E (e) 34° 06' 00" S 152° 03' 16" E.

Controlling Authority Navy Fleet HQ Potts Point*Times of Use* NOTAM*Chartlet* 1

YBBBB-YMMM/R485C Tasman Sea*Nature of Activity* Military flying*Vertical Limits* SFC-8 500*Chart* Aus 4643

(a) 34° 20' 29" S 151° 56' 14" E

(b) 34° 06' 00" S 152° 03' 16" E

(c) 34° 06' 00" S 152° 34' 17" E

thence the minor arc of a circle of 70NM radius centred on Sydney DME (33° 56' 34" S 151° 10' 51" E) to

(d) 34° 30' 53" S 152° 24' 28" E.

Controlling Authority Navy Fleet HQ Potts Point*Times of Use* NOTAM*Chartlet* 1**YBBBB/R485D Tasman Sea***Nature of Activity* Military flying*Vertical Limits* SFC-FL125*Chart* Aus 4643

(a) 34° 30' 53" S 152° 24' 28" E, thence the minor arc of a circle of 70NM radius centred on Sydney DME (33° 56' 34" S

(b) 34° 06' 00" S 152° 34' 17" E

(c) 34° 06' 00" S 153° 34' 46" E

151° 10' 51" E) to

thence the minor arc of a circle of 120NM radius centred on Sydney DME to 34° 50' 59" S 153° 20' 09" E.

Controlling Authority Navy Fleet HQ Potts Point*Times of Use* NOTAM*Chartlet* 1**YBBBB-YMMM/R485E Tasman Sea***Nature of Activity* Military flying*Vertical Limits* SFC-FL205*Chart* Aus 4643

(a) 34° 30' 00" S 151° 51' 35" E

(b) 34° 20' 29" S 151° 56' 14" E

(c) 34° 50' 59" S 153° 20' 09" E

thence the minor arc of a circle of 120NM radius centred on Sydney DME (33° 56' 34" S 151° 10' 51" E) to

(d) 35° 19' 20" S 152° 56' 18" E.

Controlling Authority Navy Fleet HQ Potts Point*Times of Use* NOTAM*Chartlet* 1**YBBB-YMMM/R489 Tasman Sea***Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 489

(a) 33° 38' 02" S 151° 51' 02" E

(b) 33° 26' 06" S 152° 00' 27" E

(c) 33° 25' 47" S 152° 22' 03" E

(d) 33° 44' 42" S 152° 22' 04" E

(e) 33° 47' 23" S 151° 51' 02" E.

Controlling Authority Navy Fleet HQ Potts Point*Times of Use* NOTAM*Chartlet* 2**YMMM/R495A Tasman Sea***Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 4643

(a) 34° 43' 56" S 151° 00' 00" E

(b) 34° 40' 30" S 151° 03' 00" E

(c) 34° 30' 00" S 151° 08' 07" E

(d) 34° 30' 00" S 151° 30' 00" E

(e) 34° 57' 02" S 151° 30' 18" E

(f) 34° 57' 24" S 150° 59' 58" E,

thence the minor arc of a circle of 23NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 34° 56' 07" S 150° 59' 57" E.

Controlling Authority Navy Fleet HQ Potts Point*Times of Use* NOTAM*Chartlet* 1**YMMM/R495B Tasman Sea***Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 4643

(a) 34° 30' 00" S 151° 30' 00" E

(b) 34° 30' 00" S 151° 51' 35" E

(c) 34° 36' 30" S 151° 59' 59" E

(d) 34° 56' 32" S 151° 59' 35" E

(e) 34° 57' 02" S 151° 30' 18" E.

Controlling Authority Navy Fleet HQ Potts Point*Times of Use* NOTAM*Chartlet* 1**YMMM/R495C Tasman Sea***Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 4643

(a) 34° 56' 32" S 151° 59' 35" E

(b) 34° 36' 30" S 151° 59' 59" E

(c) 34° 56' 01" S 152° 25' 27" E.

Controlling Authority Navy Fleet HQ Potts Point*Times of Use* NOTAM*Chartlet* 1**YBBB/R574 Williamtown***Nature of Activity* Military flying*Vertical Limits* SFC-FL600*Chart* Aus 209

(a) 31° 00' 21" S 153° 16' 04" E

(b) 30° 43' 33" S 153° 24' 27" E

(c) 31° 01' 44" S 155° 18' 14" E

(d) 32° 33' 37" S 154° 47' 57" E

(e) 33° 51' 30" S 154° 01' 56" E

(f) 33° 51' 30" S 152° 07' 57" E

(g) 33° 32' 50" S 151° 58' 52" E

(h) 33° 12' 21" S 151° 56' 02" E,

thence the minor arc of a circle of 25NM radius centred on 32° 47' 49" S 151° 50' 00" E (WLM/TAC) to

(i) 32° 44' 36" S 152° 19' 24" E

(j) 32° 25' 00" S 152° 33' 00" E

(k) 32° 00' 00" S 152° 45' 52" E

Controlling Authority FLTCDR 453SQN Williamtown Flt*Times of Use* NOTAM*Chartlet* 2**YBBB/R596 Williamtown***Nature of Activity* Military flying/non-flying*Vertical Limits* SFC-FL120*Chart* Aus 209

(a) 32° 42' 00" S 152° 04' 00" E

(b) 32° 46' 30" S 152° 04' 00" E

(c) 32° 49' 00" S 151° 55' 00" E

(d) 32° 46' 00" S 151° 51' 00" E

(e) 32° 39' 30" S 151° 51' 00" E

(f) 32° 39' 30" S 151° 57' 45" E.

Controlling Authority FLTCDR 453SQN Williamtown Flt*Times of Use* NOTAM*Chartlet* 2

YBBB/R609 Evans Head

Nature of Activity Military flying
Vertical Limits NOTAM
Chart Aus 813

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM
Chartlet 2

29° 14' 00" S 153° 24' 00" E, thence the major arc of a circle of 3 NM radius centred on 29° 11' 00" S 153° 24' 00" E, to 29° 10' 13" S 153° 27' 19" E.

YBBB/R638A Evans Head

Nature of Activity Military flying/non-flying
Vertical Limits 1 000-8 000
Chart Aus 813

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM
Chartlet 2

(a) 28° 57' 00" S 153° 27' 30" E (b) 28° 56' 21" S 153° 31' 28" E, thence along the coast to 29° 06' 55" S 153° 26' 11" E, thence along the N bank of the Evans and Richmond Rivers to 29° 01' 20" S 153° 17' 00" E.

Note: NOTAM may be requested to change activation hours with 2 hours notification

YBBB/R638B Evans Head

Nature of Activity Military flying/non-flying
Vertical Limits SFC-8 000
Chart Aus 813

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM
Chartlet 2

(a) 29° 15' 00" S 153° 03' 30" E (b) 29° 06' 00" S 153° 05' 40" E (c) 29° 01' 20" S 153° 17' 00" E, thence along the N bank of the Evans and Richmond Rivers to 29° 06' 55" S 153° 26' 11" E, thence along the coast to 29° 26' 28" S 153° 22' 12" E.

Note: NOTAM may be requested to change activation hours with 2 hours notification

YBBB/R638C Evans Head

Nature of Activity Military flying/non-flying
Vertical Limits 8 000-NOTAM
Chart Aus 813

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM
Chartlet 2

(a) 29° 15' 00" S 153° 03' 30" E (b) 29° 06' 00" S 153° 05' 40" E (c) 28° 57' 00" S 153° 27' 30" E
 (d) 28° 56' 21" S 153° 31' 28" E, thence along the coast to 29° 26' 28" S 153° 22' 12" E.

Note: NOTAM may be requested to change activation hours with 2 hours notification

YBBB/R638D Evans Head

Nature of Activity Military flying/non-flying
Vertical Limits SFC-NOTAM
Chart Aus 813

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM
Chartlet 2

28° 52' 13" S 153° 49' 39" E, thence the minor arc of a circle of 30 NM radius centred on 29° 11' 51" S 153° 23' 44" E, to 29° 41' 39" S 153° 19' 07" E, thence along the coast to 28° 56' 21" S 153° 31' 28" E.

Note: NOTAM may be requested to change activation hours with 2 hours notification

YBBB/R662A AMBERLEY

Nature of Activity Military flying
Vertical Limits 5000-NOTAM
Chart Aus 812

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM
Chartlet 2

(a) 28° 52' 13" S 153° 49' 39" E (b) 28° 32' 15" S 153° 56' 36" E (c) 28° 33' 12" S 154° 07' 49" E
 (d) 28° 33' 47" S 154° 09' 20" E (e) 29° 13' 21" S 155° 07' 10" E (f) 30° 28' 10" S 154° 25' 53" E
 (f) 30° 18' 53" S 153° 29' 32" E (g) 29° 39' 23" S 153° 37' 34" E, thence the minor arc of a circle of 30 NM radius centred on 29° 11' 51" S 153° 23' 44" E.

YBBB/R662B AMBERLEY

Nature of Activity Military flying
Vertical Limits 5000-NOTAM
Chart Aus 812

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM
Chartlet 2

(a) 30° 28' 10" S 154° 25' 53" E (b) 29° 13' 21" S 155° 07' 10" E (c) 29° 48' 16" S 155° 59' 22" E
 (d) 30° 38' 25" S 155° 31' 25" E

YBBB/R671A AMBERLEY

Nature of Activity Military flying
Vertical Limits FL125-FL245
Chart Aus 812

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM
Chartlet 2

(a) 30° 43' 33" S 153° 24' 27" E (b) 30° 18' 53" S 153° 29' 32" E (c) 30° 28' 10" S 154° 25' 53" E
 (d) 30° 38' 25" S 155° 31' 25" E (e) 31° 01' 44" S 155° 18' 14" E

YBBB/R671B AMBERLEY

Nature of Activity Military flying
Vertical Limits FL245 -NOTAM
Chart Aus 812

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM
Chartlet 2

(a) 30° 43' 33" S 153° 24' 27" E (b) 30° 18' 53" S 153° 29' 32" E (c) 30° 28' 10" S 154° 25' 53" E
 (d) 30° 38' 25" S 155° 31' 25" E (e) 31° 01' 44" S 155° 18' 14" E

QUEENSLAND**YBBB/R637A Amberley**

Nature of Activity Military flying
Vertical Limits 5000-NOTAM
Chart Aus 4635

(a) 25° 27' 41" S 153° 15' 56" E
 (d) 26° 15' 42" S 153° 29' 56" E.

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM

Chartlet 3

(b) 24° 50' 56" S 153° 38' 38" E (c) 25° 31' 53" S 154° 17' 17" E
 (e) 26° 10' 07" S 153° 25' 43" E (f) 25° 44' 29" S 153° 16' 51" E

YBBB/R637B Amberley

Nature of Activity Military flying
Vertical Limits 5000-NOTAM
Chart Aus 4635

(a) 24° 50' 56" S 153° 38' 38" E
 (d) 25° 31' 53" S 154° 17' 17" E

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM

Chartlet 3

(b) 23° 59' 01" S 154° 10' 14" E (c) 24° 49' 42" S 155° 02' 03" E

YBBB/R637C Amberley

Nature of Activity Military flying
Vertical Limits 5000-NOTAM
Chart Aus 4635

(a) 25° 31' 53" S 154° 17' 17" E
 (d) 26° 12' 15" S 154° 55' 58" E

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM

Chartlet 3

(b) 24° 49' 42" S 155° 02' 03" E (c) 25° 39' 32" S 155° 54' 00" E

YBBB/R637D Amberley

Nature of Activity Military flying
Vertical Limits 5000-NOTAM
Chart Aus 4635

(a) 26° 15' 42" S 153° 29' 56" E
 (d) 26° 46' 43" S 153° 53' 29" E

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM

Chartlet 3

(b) 25° 31' 53" S 154° 17' 17" E (c) 26° 12' 15" S 154° 55' 58" E

YBBB/R644 Amberley

Nature of Activity Military flying
Vertical Limits 5000-NOTAM
Chart Aus 4635

(a) 26° 46' 43" S 153° 53' 29" E
 (d) 26° 15' 50" S 156° 30' 28" E
 (f) 27° 23' 00" S 154° 28' 52" E

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM

Chartlet 3

(b) 26° 12' 15" S 154° 55' 58" E (c) 25° 39' 32" S 155° 54' 00" E
 (e) 26° 33' 23" S 155° 46' 55" E (e) 27° 13' 12" S 154° 44' 29" E

YBBB/R650A Amberley

Nature of Activity Military flying
Vertical Limits 5000-NOTAM
Chart Aus 4635

(a) 27° 23' 00" S 154° 28' 52" E

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM

Chartlet 3

(b) 27° 13' 12" S 154° 44' 29" E (c) 27° 46' 28" S 154° 44' 29" E

YBBB/R650B Amberley

Nature of Activity Military flying
Vertical Limits 5000-NOTAM
Chart Aus 4635

(a) 27° 13' 12" S 154° 44' 29" E
 (d) 27° 16' 34" S 157° 31' 03" E

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM

Chartlet 3

(b) 26° 33' 23" S 155° 46' 55" E (c) 26° 15' 50" S 156° 30' 28" E
 (e) 28° 50' 10" S 156° 37' 53" E (e) 27° 46' 28" S 154° 44' 29" E

YBBB/R680 Akens Island

Nature of Activity Military flying/non-flying
Vertical Limits NOTAM
Chart Aus 822

(a) 22° 17' 00" S 150° 12' 00" E
 (d) 22° 15' 06" S 150° 23' 42" E
 (g) 22° 30' 30" S 150° 27' 00" E thence N along the coast to 22° 19' 00" S 150° 10' 46" E.

Controlling Authority Army RCO Shoalwater Bay
Times of Use NOTAM

Chartlet 4

(b) 22° 15' 00" S 150° 20' 00" E (c) 22° 12' 34" S 150° 25' 27" E
 (e) 22° 17' 54" S 150° 23' 12" E (f) 22° 23' 42" S 150° 26' 12" E

YBBB/R685A Wide Bay

Nature of Activity Military flying/non-flying
Vertical Limits SFC-NOTAM
Chart Aus 817

(a) 25° 48' 14" S 152° 54' 17" E
 (d) 25° 56' 58" S 152° 55' 21" E
 (g) 25° 55' 39" S 152° 54' 17" E

Controlling Authority Army RCO Wide Bay
Times of Use NOTAM

Chartlet 3

(b) 25° 48' 20" S 152° 55' 18" E (c) 25° 56' 44" S 152° 55' 18" E
 (e) 25° 57' 05" S 152° 54' 46" E (f) 25° 56' 40" S 152° 54' 25" E
 (h) 25° 55' 39" S 152° 51' 33" E

thence along Maryborough Cooloola Road to 25° 49' 26" S 152° 51' 46" E.

YBBB/R685B Wide Bay*Nature of Activity* Military flying/non-flying*Vertical Limits* SFC-NOTAM*Chart* Aus 817

(a) 25° 48' 20" S 152° 55' 18" E

(d) 25° 48' 40" S 152° 58' 03" E

(g) 25° 49' 40" S 153° 01' 12" E

(j) 25° 53' 43" S 153° 01' 41" E

(m) 25° 55' 19" S 152° 59' 11" E

thence along Tin Can Bay Road to

(r) 25° 56' 44" S 152° 55' 18" E.

Controlling Authority Army RCO Wide Bay*Times of Use* NOTAM*Chartlet* 3

(b) 25° 48' 26" S 152° 56' 27" E

(e) 25° 48' 36" S 152° 58' 19" E

(h) 25° 50' 43" S 153° 01' 23" E

(k) 25° 54' 25" S 152° 59' 00" E

(n) 25° 55' 49" S 152° 59' 10" E

(p) 25° 56' 46" S 152° 56' 30" E

(c) 25° 48' 46" S 152° 57' 10" E

(f) 25° 47' 51" S 152° 58' 59" E

(i) 25° 52' 40" S 153° 01' 53" E

(l) 25° 54' 58" S 152° 58' 51" E

(o) 25° 56' 29" S 152° 58' 29" E

(q) 25° 56' 36" S 152° 56' 26" E

YBBB/R682 Townshend Island*Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 822

(a) 22° 17' 54" S 150° 23' 12" E

(d) 22° 06' 00" S 150° 45' 00" E

(g) 22° 25' 56" S 150° 26' 28" E

Controlling Authority Army RCO Shoalwater Bay*Times of Use* NOTAM*Chartlet* 4

(b) 22° 15' 06" S 150° 23' 42" E

(e) 22° 19' 00" S 150° 49' 00" E

(h) 22° 23' 42" S 150° 26' 12" E.

(c) 22° 06' 00" S 150° 30' 00" E

(f) 22° 19' 00" S 150° 33' 00" E

YBBB/R683 Cape Clinton*Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 822

(a) 22° 30' 30" S 150° 27' 00" E

(d) 22° 19' 00" S 150° 49' 00" E

Controlling Authority Army RCO Shoalwater Bay*Times of Use* NOTAM*Chartlet* 4

(b) 22° 25' 56" S 150° 26' 28" E

(e) 22° 41' 19" S 150° 50' 31" E.

(c) 22° 19' 00" S 150° 33' 00" E

YBBB/R684A Mount Hummock*Nature of Activity* Military flying/non-flying*Vertical Limits* SFC-2 000*Chart* Aus 822

(a) 22° 55' 00" S 150° 27' 00" E

(d) 22° 49' 22" S 150° 47' 07" E

Controlling Authority Army RCO Shoalwater Bay*Times of Use* H24*Chartlet* 4

(b) 22° 30' 30" S 150° 27' 00" E

(e) 22° 47' 57" S 150° 37' 21" E

(c) 22° 41' 19" S 150° 50' 31" E

(f) 22° 54' 00" S 150° 36' 00" E.

YBBB/R684B Mount Hummock*Nature of Activity* Military flying/non-flying*Vertical Limits* 2 000-NOTAM*Chart* Aus 822

(a) 22° 55' 00" S 150° 27' 00" E

(d) 22° 49' 22" S 150° 47' 07" E

Controlling Authority Army RCO Shoalwater Bay*Times of Use* NOTAM*Chartlet* 4

(b) 22° 30' 30" S 150° 27' 00" E

(e) 22° 47' 57" S 150° 37' 21" E

(c) 22° 41' 19" S 150° 50' 31" E

(f) 22° 54' 00" S 150° 36' 00" E.

YBBB/R686 Triangular Island*Nature of Activity* Military flying/non-flying*Vertical Limits* SFC-10 000*Chart* Aus 822

A circle of 3NM radius centred on 22° 23' 00" S 150° 30' 30" E.

Controlling Authority Army RCO Shoalwater Bay*Times of Use* NOTAM*Chartlet* 4**YBBB/R687A Raspberry Creek***Nature of Activity* Military flying/non-flying*Vertical Limits* SFC-2 000*Chart* Aus 822

(a) 22° 52' 05" S 150° 16' 31" E

thence SE along the coast to

Controlling Authority Army RCO Shoalwater Bay*Times of Use* H24*Chartlet* 4

(b) 22° 27' 04" S 150° 05' 46" E

(d) 22° 30' 30" S 150° 27' 00" E

(c) 22° 19' 00" S 150° 10' 46" E

(d) 22° 55' 00" S 150° 27' 00" E.

YBBB/R687B Raspberry Creek*Nature of Activity* Military flying/non-flying*Vertical Limits* 2 000-NOTAM*Chart* Aus 822

(a) 22° 52' 05" S 150° 16' 31" E

thence SE along the coast to

Controlling Authority Army RCO Shoalwater Bay*Times of Use* NOTAM*Chartlet* 4

(b) 22° 27' 04" S 150° 05' 46" E

(d) 22° 30' 30" S 150° 27' 00" E

(c) 22° 19' 00" S 150° 10' 46" E

(d) 22° 55' 00" S 150° 27' 00" E.

YBBB/R689 Shoalwater Bay*Nature of Activity* Military flying*Vertical Limits* NOTAM*Chart* Aus 367

(a) 22° 27' 04" S 150° 05' 46" E

radius centred on 22° 16' 00" S 150° 33' 00" E to

(d) 22° 19' 00" S 150° 49' 00" E

(g) 22° 12' 34" S 150° 25' 27" E

Controlling Authority Army RCO Shoalwater Bay*Times of Use* NOTAM*Chartlet* 4

(b) 22° 15' 09" S 150° 00' 40" E, thence the major arc of a circle of 30 NM

(c) 22° 41' 19" S 150° 50' 31" E

(e) 22° 06' 00" S 150° 45' 00" E

(h) 22° 15' 00" S 150° 20' 00" E

(f) 22° 06' 00" S 150° 30' 00" E

(i) 22° 17' 00" S 150° 12' 00" E.

YBBB/R693 Elliott

Nature of Activity Military flying
Vertical Limits NOTAM
Chart Aus 490
 (a) 24° 24' 00" S 152° 08' 00" E
 (d) 24° 41' 00" S 152° 34' 00" E.

Controlling Authority Navy Fleet HQ Potts Point
Times of Use NOTAM
Chartlet 3

(b) 24° 11' 00" S 152° 31' 00" E (c) 24° 28' 00" S 152° 58' 00" E

YBBB/R695A Herbert Creek

Nature of Activity Military flying/non-flying
Vertical Limits SFC-2 000
Chart Aus 367
 (a) 22° 38' 00" S 150° 05' 30" E
 (d) 22° 52' 05" S 150° 16' 31" E

Controlling Authority Army RCO Shoalwater Bay
Times of Use H24
Chartlet 4

(b) 22° 27' 30" S 150° 05' 30" E (c) 22° 27' 04" S 150° 05' 46" E
 (e) 22° 51' 30" S 150° 13' 30" E (f) 22° 44' 30" S 150° 08' 30" E.

YBBB/R695B Herbert Creek

Nature of Activity Military flying/non-flying
Vertical Limits 2 000-6 000
Chart Aus 367
 (a) 22° 38' 00" S 150° 05' 30" E
 (d) 22° 52' 05" S 150° 16' 31" E

Controlling Authority Army RCO Shoalwater Bay
Times of Use NOTAM
Chartlet 4

(b) 22° 27' 30" S 150° 05' 30" E (c) 22° 27' 04" S 150° 05' 46" E
 (e) 22° 51' 30" S 150° 13' 30" E (f) 22° 44' 30" S 150° 08' 30" E.

YBBB/R695C Herbert Creek

Nature of Activity Military flying/non-flying
Vertical Limits 6 000-NOTAM
Chart Aus 367
 (a) 22° 38' 00" S 150° 05' 30" E
 (d) 22° 52' 05" S 150° 16' 31" E

Controlling Authority Army RCO Shoalwater Bay
Times of Use NOTAM
Chartlet 4

(b) 22° 27' 30" S 150° 05' 30" E (c) 22° 27' 04" S 150° 05' 46" E
 (e) 22° 51' 30" S 150° 13' 30" E (f) 22° 44' 30" S 150° 08' 30" E.

YBBB/R725 Saumarez Reef

Nature of Activity Military flying
Vertical Limits NOTAM
Chart Aus 612
 A circle of 5 NM radius centred on 21° 51' 18" S 153° 38' 47" E.

Controlling Authority FLTCDR 452SQN Amberley Flt
Times of Use NOTAM
Chartlet 3

YBBB/R747 Rattlesnake Island

Nature of Activity Military flying/non-flying
Vertical Limits SFC-NOTAM
Chart Aus 827
 A circle of 4.8 NM radius centred on 19° 02' 10" S 146° 36' 38" E.

Controlling Authority FLTCDR 452SQN Townsville Flt
Times of Use NOTAM
Chartlet 5

YBBB/R748 Halifax Bay

Nature of Activity Military flying
Vertical Limits SFC-FL600
Chart Aus 827

Controlling Authority FLTCDR 452SQN Townsville Flt
Times of Use NOTAM
Chartlet 5

(a) 19° 04' 56" S 146° 47' 41" E (b) 19° 08' 23" S 146° 43' 46" E (c) 19° 09' 00" S 146° 38' 30" E
 (d) 19° 01' 30" S 146° 28' 00" E (e) 18° 55' 33" S 146° 23' 35" E (f) 18° 49' 00" S 146° 26' 00" E
 (g) 18° 46' 00" S 146° 31' 00" E (h) 18° 49' 12" S 146° 34' 38" E thence the minor arc of a circle of 29 NM
 radius centred on Townsville Tacan (19° 16' 44" S 146° 44' 33" E), to 18° 48' 22" S 146° 51' 25" E.

YBBB/R767 Cairns

Nature of Activity Military non-flying
Vertical Limits SFC-NOTAM
Chart Aus 829 & Aus 830
 (a) 17° 19' 00" S 146° 08' 18" E
 (d) 17° 22' 00" S 146° 25' 00" E

Controlling Authority Navy Fleet HQ Potts Point
Times of Use NOTAM
Chartlet 6

(b) 17° 08' 00" S 146° 07' 00" E (c) 17° 07' 00" S 146° 23' 00" E
 (e) 17° 23' 30" S 146° 13' 00" E.

YBBB/R778 Cairns (Outer Reef)

Nature of Activity Military non-flying
Vertical Limits SFC-NOTAM
Chart Aus 829 & Aus 830
 (a) 16° 41' 30" S 146° 15' 00" E
 (d) 16° 41' 30" S 146° 33' 00" E.

Controlling Authority Navy Fleet HQ Potts Point
Times of Use NOTAM
Chartlet 6

(b) 16° 30' 00" S 146° 15' 00" E (c) 16° 30' 00" S 146° 33' 00" E

YBBB/R783 Lizard Island

Nature of Activity Military non-flying
Vertical Limits SFC-NOTAM
Chart Aus 832
 (a) 14° 33' 00" S 145° 14' 00" E
 (d) 14° 40' 00" S 145° 18' 00" E.

Controlling Authority Navy Fleet HQ Potts Point
Times of Use NOTAM
Chartlet 6

(b) 14° 28' 00" S 145° 22' 00" E (c) 14° 34' 00" S 145° 26' 00" E

NORTHERN TERRITORY**YBBB/R230A Darwin**

Nature of Activity Military flying/non-flying
Vertical Limits 5 000-NOTAM
Chart Aus 4721

11° 05' 02" S 130° 53' 39" E, thence the minor arc of a circle of 80 NM radius centred on Darwin DME (12° 25' 24" S 130° 54' 23" E), to 11° 20' 50" S 131° 42' 58" E, 12° 05' 13" S 131° 09' 35" E, thence the minor arc of a circle of 25 NM radius centred on Darwin DME, to 12° 00' 17" S 130° 54' 53" E.

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 7

YBBB/R230B Darwin

Nature of Activity Military flying/non-flying
Vertical Limits NOTAM
Chart Aus 4721

10° 24' 52" S 130° 52' 46" E, thence the minor arc of a circle of 120 NM radius centred on Darwin DME (12° 25' 24" S 130° 54' 23" E), to 10° 48' 30" S 132° 07' 07" E, 11° 20' 50" S 131° 42' 58" E, thence the minor arc of a circle of 80 NM radius centred on Darwin DME, to 11° 05' 02" S 130° 53' 39" E.

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 7

YBBB/R230C Darwin

Nature of Activity Military flying/non-flying
Vertical Limits NOTAM
Chart Aus 4721

9° 54' 44" S 130° 52' 07" E, thence the minor arc of a circle of 150 NM radius centred on Darwin DME (12° 25' 24" S 130° 54' 23" E), to 10° 24' 14" S 132° 25' 11" E, 10° 48' 30" S 132° 07' 07" E, thence the minor arc of a circle of 120 NM radius centred on Darwin DME, to 10° 24' 52" S 130° 52' 46" E.

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 7

YBBB/R230D Darwin

Nature of Activity Military flying/non-flying
Vertical Limits 5 000-NOTAM
Chart Aus 4721

11° 20' 50" S 131° 42' 58" E, thence the minor arc of a circle of 80 NM radius centred on Darwin DME (12° 25' 24" S 130° 54' 23" E), to 12° 02' 20" S 132° 12' 38" E, 12° 18' 53" S 131° 19' 03" E, thence the minor arc of a circle of 25 NM radius centred on Darwin DME, to 12° 05' 13" S 131° 09' 35" E.

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 7

YBBB/R230E Darwin

Nature of Activity Military flying/non-flying
Vertical Limits 5 000-NOTAM
Chart Aus 4721

10° 48' 30" S 132° 07' 07" E, thence the minor arc of a circle of 120 NM radius centred on Darwin DME (12° 25' 24" S 130° 54' 23" E), to 11° 50' 11" S 132° 51' 32" E, 12° 02' 20" S 132° 12' 38" E, thence the minor arc of a circle of 80 NM radius centred on Darwin DME, to 11° 20' 50" S 131° 42' 58" E.

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 7

YBBB/R230F Darwin

Nature of Activity Military flying/non-flying
Vertical Limits 5 000-NOTAM
Chart Aus 4721

10° 24' 14" S 132° 25' 11" E, thence the minor arc of a circle of 150 NM radius centred on Darwin DME (12° 25' 24" S 130° 54' 23" E), to 11° 41' 01" S 133° 20' 40" E, 11° 50' 11" S 132° 51' 32" E, thence the minor arc of a circle of 120 NM radius centred on Darwin DME, to 10° 48' 30" S 132° 07' 07" E.

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 7

YBBB/R264A Darwin

Nature of Activity Military flying/non-flying
Vertical Limits NOTAM
Chart Aus 4721

12° 32' 35" S 130° 29' 53" E, thence the minor arc of a circle of 25 NM radius centred on Darwin DME (12° 25' 24" S 130° 54' 23" E), to 12° 18' 12" S 130° 29' 54" E, 12° 12' 26" S 130° 10' 20" E, thence the minor arc of a circle of 45 NM radius centred on Darwin DME, to 12° 38' 16" S 130° 10' 16" E.

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 7

YBBB/R264B Darwin

Nature of Activity Military flying/non-flying
Vertical Limits NOTAM
Chart Aus 4721

12° 38' 16" S 130° 10' 16" E, thence the minor arc of a circle of 45 NM radius centred on Darwin DME (12° 25' 24" S 130° 54' 23" E), to 12° 12' 26" S 130° 10' 20" E, 12° 02' 16" S 129° 36' 08" E, thence the minor arc of a circle of 80 NM radius centred on Darwin DME, to 12° 48' 09" S 129° 35' 45" E.

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 7

YBBB/R264C Darwin

Nature of Activity Military flying/non-flying
Vertical Limits NOTAM
Chart Aus 4721

12° 48' 09" S 129° 35' 54" E, thence the minor arc of a circle of 80 NM radius centred on Darwin DME (12° 25' 24" S 130° 54' 23" E), to 12° 02' 16" S 129° 36' 08" E, 11° 50' 34" S 128° 57' 06" E, thence the minor arc of a circle of 120 NM radius centred on Darwin DME, to 12° 59' 22" S 128° 56' 35" E.

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 7

YBBB/R264D Darwin*Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 4721

12° 59' 22" S 128° 56' 35" E, thence the minor arc of a circle of 120 NM radius centred on Darwin DME (12° 25' 24" S 130° 54' 23" E), to 11° 50' 34" S 128° 57' 06" E, 11° 35' 48" S 128° 08' 23" E, thence the minor arc of a circle of 170 NM radius centred on Darwin DME, to 13° 13' 15" S 128° 07' 20" E.

Controlling Authority FLTCDR 452SQN Darwin Flt*Times of Use* NOTAM*Chartlet* 7**YBBB/R264E Darwin***Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 4721

12° 32' 35" S 130° 29' 53" E, thence the minor arc of a circle of 25 NM radius centred on Darwin DME (12° 25' 24" S 130° 54' 23" E), to 12° 44' 26" S 130° 37' 42" E, 13° 26' 16" S 130° 00' 54" E, thence the minor arc of a circle of 80 NM radius centred on Darwin DME, to 12° 48' 09" S 129° 35' 54" E.

Controlling Authority FLTCDR 452SQN Darwin Flt*Times of Use* NOTAM*Chartlet* 7**YBBB/R264F Darwin***Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 4721

12° 48' 09" S 129° 35' 54" E, thence the minor arc of a circle of 80 NM radius centred on Darwin DME (12° 25' 24" S 130° 54' 23" E), to 13° 26' 16" S 130° 00' 54" E, 13° 56' 38" S 129° 34' 00" E, thence the minor arc of a circle of 120 NM radius centred on Darwin DME, to 12° 59' 22" S 128° 56' 35" E.

Controlling Authority FLTCDR 452SQN Darwin Flt*Times of Use* NOTAM*Chartlet* 7**YBBB/R264G Darwin***Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 4721

12° 59' 22" S 128° 56' 35" E, thence the minor arc of a circle of 120 NM radius centred on Darwin DME (12° 25' 24" S 130° 54' 23" E), to 13° 56' 38" S 129° 34' 00" E, 14° 34' 32" S 129° 00' 13" E, thence the minor arc of a circle of 170 NM radius centred on Darwin DME, to 13° 13' 15" S 128° 07' 20" E.

Controlling Authority FLTCDR 452SQN Darwin Flt*Times of Use* NOTAM*Chartlet* 7**YBBB/R264H Darwin***Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM*Chart* Aus 4721

12° 44' 26" S 130° 37' 42" E, thence the minor arc of a circle of 25 NM radius centred on Darwin DME (12° 25' 24" S 130° 54' 23" E), to 12° 49' 20" S 130° 46' 39" E, 13° 41' 06" S 130° 26' 55" E, thence the minor arc of a circle of 80 NM radius centred on Darwin DME, to 13° 26' 16" S 130° 00' 54" E.

Controlling Authority FLTCDR 452SQN Darwin Flt*Times of Use* NOTAM*Chartlet* 7**YBBB/R264J Darwin***Nature of Activity* Military flying/non-flying*Vertical Limits* 5 000-NOTAM*Chart* Aus 4721

13° 26' 16" S 130° 00' 54" E, thence the minor arc of a circle of 80 NM radius centred on Darwin DME (12° 25' 24" S 130° 54' 23" E), to 13° 41' 06" S 130° 26' 55" E, 14° 18' 44" S 130° 12' 30" E, thence the minor arc of a circle of 120 NM radius centred on Darwin DME, to 13° 56' 38" S 129° 34' 00" E.

Controlling Authority FLTCDR 452SQN Darwin Flt*Times of Use* NOTAM*Chartlet* 7**YBBB/R264K Darwin***Nature of Activity* Military flying/non-flying*Vertical Limits* 5 000-NOTAM*Chart* Aus 4721

13° 56' 38" S 129° 34' 00" E, thence the minor arc of a circle of 120 NM radius centred on Darwin DME (12° 25' 24" S 130° 54' 23" E), to 14° 18' 44" S 130° 12' 30" E, 15° 05' 44" S 129° 54' 21" E, thence the minor arc of a circle of 170 NM radius centred on Darwin DME, to 14° 34' 32" S 129° 00' 13" E.

Controlling Authority FLTCDR 452SQN Darwin Flt*Times of Use* NOTAM*Chartlet* 7**YBBB/R272 Bathurst Island***Nature of Activity* Military non-flying*Vertical Limits* SFC - 1500*Chart* Aus 722

A circle of 1.0 NM radius centred on 11° 45' 34" S 130° 02' 05" E.

Controlling Authority FLTCDR 452SQN Darwin Flt*Times of Use* H24*Chartlet* 7**WESTERN AUSTRALIA****Greenough***Nature of Activity* Firing*Vertical Limits* NOTAM*Chart* Aus 751

(a) 28° 57' 50" S 114° 43' 17" E along the coast to (b) 28° 58' 09" S 114° 43' 38" E
(c) 28° 58' 28" S 114° 43' 16" E (d) 28° 58' 10" S 114° 42' 55" E.

Controlling Authority Army*Times of Use* HJ, NOTAM*Chartlet* 9

Flat Rock

Nature of Activity Air to surface weapon firing
Vertical Limits NOTAM
Chart Aus 753
 A circle of 2.4 NM radius centred on 30° 45' 40" S 115° 09' 45" E.

Controlling Authority Air Force
Times of Use NOTAM
Chartlet 9

YMMM/R119A Stirling

Nature of Activity Military flying/non-flying
Vertical Limits SFC-FL950
Chart Aus 4725

Controlling Authority Navy HMAS Stirling
Times of Use NOTAM
Chartlet 9

31° 38' 54" S 113° 38' 19" E, thence the minor arc of a circle of 120NM radius centred on Perth DME (31° 56' 42" S 115° 57' 34" E), to 30° 50' 29" S 114° 00' 32" E, 31° 23' 49" S 114° 58' 43" E, thence the minor arc of a circle of 60NM radius centred on Perth DME, to 31° 48' 07" S 114° 47' 50" E.

YMMM/R119B Stirling

Nature of Activity Military flying/non-flying
Vertical Limits SFC-FL950
Chart Aus 4725

Controlling Authority Navy HMAS Stirling
Times of Use NOTAM
Chartlet 9

32° 30' 51" S 113° 41' 55" E, thence the minor arc of a circle of 120NM radius centred on Perth DME (31° 56' 42" S 115° 57' 34" E), to 31° 38' 54" S 113° 38' 19" E 31° 46' 38" S 114° 36' 14" E, thence the minor arc of a circle of 70NM radius centred on Perth DME, to 32° 16' 55" S 114° 38' 39" E.

YMMM/R119C Stirling

Nature of Activity Military flying/non-flying
Vertical Limits SFC-FL950
Chart Aus 4725

Controlling Authority Navy HMAS Stirling
Times of Use NOTAM
Chartlet 9

31° 52' 29" S 115° 22' 41" E, thence the minor arc of a circle of 30NM radius centred on Perth DME (31° 56' 42" S 115° 57' 34" E), to 32° 05' 28" S 115° 23' 49" E, 32° 16' 55" S 114° 38' 39" E, thence the minor arc of a circle of 70NM radius centred on Perth DME, to 31° 46' 38" S 114° 36' 14" E.

YMMM/R119D Stirling

Nature of Activity Military flying/non-flying
Vertical Limits SFC-FL950
Chart Aus 4725

Controlling Authority Navy HMAS Stirling
Times of Use NOTAM
Chartlet 9

33° 08' 23" S 114° 03' 35" E, thence the minor arc of a circle of 120NM radius centred on Perth DME (31° 56' 42" S 115° 57' 34" E), to 32° 30' 51" S 113° 41' 55" E, 32° 16' 55" S 114° 38' 39" E, thence the minor arc of a circle of 70NM radius centred on Perth DME, to 32° 38' 44" S 114° 51' 27" E.

YMMM/R119E Stirling

Nature of Activity Military flying/non-flying
Vertical Limits SFC-FL950
Chart Aus 4725

Controlling Authority Navy HMAS Stirling
Times of Use NOTAM
Chartlet 9

32° 38' 44" S 114° 51' 27" E, thence the minor arc of a circle of 70NM radius centred on Perth DME (31° 56' 42" S 115° 57' 34" E), to 32° 16' 55" S 114° 38' 39" E, 32° 05' 28" S 115° 23' 49" E, thence the minor arc of a circle of 30NM radius centred on Perth DME, to 32° 14' 47" S 115° 29' 22" E.

YMMM/R119F Stirling

Nature of Activity Military flying/non-flying
Vertical Limits SFC-FL950
Chart Aus 4725

Controlling Authority Navy HMAS Stirling
Times of Use NOTAM
Chartlet 9

33° 42' 40" S 114° 50' 16" E, thence the minor arc of a circle of 120NM radius centred on Perth DME (31° 56' 42" S 115° 57' 34" E), to 33° 08' 23" S 114° 03' 35" E, 32° 38' 44" S 114° 51' 27" E, thence the minor arc of a circle of 70NM radius centred on Perth DME, to 32° 58' 36" S 115° 18' 38" E.

YMMM/R119G Stirling

Nature of Activity Military flying/non-flying
Vertical Limits SFC-FL950
Chart Aus 4725

Controlling Authority Navy HMAS Stirling
Times of Use NOTAM
Chartlet 9

32° 27' 40" S 115° 38' 13" E, 32° 58' 36" S 115° 18' 38" E, thence the minor arc of a circle of 70NM radius centred on Perth DME (31° 56' 42" S 115° 57' 34" E), to 32° 38' 44" S 114° 51' 27" E, 32° 14' 47" S 115° 29' 22" E, thence the minor arc of a circle of 30NM radius centred on Perth DME, to 32° 22' 32" S 115° 39' 30" E.

YMMM/R119H Stirling

Nature of Activity Military flying/non-flying
Vertical Limits SFC-4 500
Chart Aus 4725

Controlling Authority Navy HMAS Stirling
Times of Use NOTAM
Chartlet 9

32° 09' 27" S 115° 39' 32" E, thence along W coast Garden Island to 32° 14' 51" S 115° 41' 24" E, 32° 22' 32" S 115° 39' 30" E, thence the minor arc of a circle of 30NM radius centred on Perth DME (31° 56' 42" S 115° 57' 34" E), to 32° 14' 47" S 115° 29' 22" E.

YMMM/R140A Garden Island

Nature of Activity Military non-flying
Vertical Limits SFC-1 500
Chart Aus 111

Controlling Authority Navy HMAS Stirling
Times of Use H24
Chartlet 9

A circle of 1.0 NM radius centred on 32° 10' 36" S 115° 40' 18" E.

YMMM/R140B Garden Island

Nature of Activity Military non-flying
Vertical Limits 1 500-4 000
Chart Aus 111

Controlling Authority Navy HMAS Stirling
Times of Use NOTAM
Chartlet 9

A circle of 1.0 NM radius centred on 32° 10' 36" S 115° 40' 18" E.

YMMM/R144 Stirling

Nature of Activity Military flying/non-flying
Vertical Limits SFC-2 000
Chart Aus 4725

Controlling Authority Navy HMAS Stirling
Times of Use NOTAM
Chartlet 9

31° 52' 46" S 115° 24' 56" E, 31° 48' 07" S 114° 47' 50" E, thence the minor arc of a circle of 60NM radius centred on Perth DME (31° 56' 42" S 115° 57' 34" E), to 31° 19' 34" S 115° 02' 18" E, 31° 38' 11" S 115° 29' 51" E, 31° 50' 01" S 115° 33' 12" E

YMMM/R146A Lancelin

Nature of Activity Military flying/non-flying
Vertical Limits SFC-FL700
Chart Aus 753 and Aus 754

Controlling Authority Navy HMAS Stirling
Times of Use NOTAM
Chartlet 9

(a) 30° 54' 00" S 114° 56' 00" E (b) 30° 45' 30" S 115° 17' 30" E (c) 30° 55' 00" S 115° 24' 00" E
 (d) 31° 07' 30" S 115° 05' 00" E.

YMMM/R146B Lancelin

Nature of Activity Military flying/non-flying
Vertical Limits SFC-FL260
Chart Aus 753 and Aus 754

Controlling Authority Navy HMAS Stirling
Times of Use NOTAM
Chartlet 9

(a) 30° 45' 30" S 115° 17' 30" E (b) 30° 41' 00" S 115° 27' 00" E (c) 30° 50' 00" S 115° 33' 00" E
 (d) 30° 55' 00" S 115° 24' 00" E.

YMMM/R146C Lancelin

Nature of Activity Military flying/non-flying
Vertical Limits SFC-FL260
Chart Aus 753 and Aus 754

Controlling Authority Navy HMAS Stirling
Times of Use NOTAM
Chartlet 9

(a) 30° 41' 00" S 115° 27' 00" E (b) 30° 45' 30" S 115° 17' 30" E (c) 30° 47' 56" S 115° 11' 21" E
 thence along the coast to (d) 30° 38' 57" S 115° 07' 36" E.

YMMM/R148 Lancelin

Nature of Activity Military flying/non-flying
Vertical Limits SFC-FL260
Chart Aus 4725

Controlling Authority Navy HMAS Stirling
Times of Use NOTAM
Chartlet 9

(a) 30° 00' 00" S 114° 30' 00" E (b) 30° 15' 32" S 115° 02' 11" E thence along the coast to
 (c) 30° 47' 56" S 115° 11' 21" E (d) 30° 54' 00" S 114° 56' 00" E (e) 31° 07' 30" S 115° 05' 00" E
 (f) 31° 40' 00" S 114° 30' 00" E.

YMMM/R157 Lancelin

Nature of Activity Military flying/non-flying
Vertical Limits SFC-FL260
Chart Aus 4725

Controlling Authority Navy HMAS Stirling
Times of Use NOTAM
Chartlet 9

(a) 31° 40' 00" S 113° 00' 00" E (b) 30° 00' 00" S 113° 00' 00" E (c) 30° 00' 00" S 114° 30' 00" E
 (d) 31° 40' 00" S 114° 30' 00" E.

YMMM/D169 Swanbourne

Nature of Activity Firing
Vertical Limits SFC-1500
Chart Aus 112

Controlling Authority Army DOTAM WA
Times of Use H24
Chartlet 9

(a) 31° 56' 49" S 115° 46' 00" E (b) 31° 56' 49" S 115° 43' 00" E (c) 31° 58' 47" S 115° 43' 00" E
 (d) 31° 58' 47" S 115° 46' 00" E

YMMM/R184 Lancelin

Nature of Activity Military flying/non-flying
Vertical Limits SFC-4 000
Chart Aus 105

Controlling Authority Navy HMAS Stirling
Times of Use NOTAM
Chartlet 9

A circle of radius 1.5 NM centred on 30° 52' 54" S 115° 16' 12" E.

YBBB/R811 Curtin

Nature of Activity Military flying
Vertical Limits NOTAM
Chart Aus 4722

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 12

(a) 16° 04' 26" S 120° 56' 17" E (b) 14° 04' 27" S 122° 56' 24" E (c) 15° 04' 57" S 123° 58' 17" E
 (d) 17° 04' 28" S 121° 56' 18" E.

YMMM/R850A Learmonth

Nature of Activity Military flying
Vertical Limits NOTAM-FL280
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

22° 54' 26" S 116° 07' 49" E, thence the minor arc of a circle of 120NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 24° 07' 12" S 113° 21' 00" E, 22° 51' 49" S 113° 50' 54" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 22° 27' 47" S 114° 46' 13" E.

YMMM/R850B Learmonth

Nature of Activity Military flying
Vertical Limits FL280-FL600
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

22° 54' 26" S 116° 07' 49" E, thence the minor arc of a circle of 120NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 24° 07' 12" S 113° 21' 00" E, 22° 51' 49" S 113° 50' 54" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 22° 27' 47" S 114° 46' 13" E.

YMMM/R851A Learmonth

Nature of Activity Military flying
Vertical Limits NOTAM-10 000
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

21° 22' 24" S 116° 02' 08" E, thence the minor arc of a circle of 120NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 22° 54' 26" S 116° 07' 49" E, 22° 27' 47" S 114° 46' 13" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 21° 57' 04" S 114° 44' 39" E.

YMMM/R851B Learmonth

Nature of Activity Military flying
Vertical Limits 10 000-FL280
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

21° 22' 24" S 116° 02' 08" E, thence the minor arc of a circle of 120NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 22° 54' 26" S 116° 07' 49" E, 22° 27' 47" S 114° 46' 13" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 21° 57' 04" S 114° 44' 39" E.

YMMM/R851C Learmonth

Nature of Activity Military flying
Vertical Limits FL280-FL600
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

21° 22' 24" S 116° 02' 08" E, thence the minor arc of a circle of 120NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 22° 54' 26" S 116° 07' 49" E, 22° 27' 47" S 114° 46' 13" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 21° 57' 04" S 114° 44' 39" E.

YMMM/R852A Learmonth

Nature of Activity Military flying
Vertical Limits 10 000-FL280
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

20° 24' 43" S 114° 59' 27" E, thence the minor arc of a circle of 120NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 21° 22' 24" S 116° 02' 08" E, 21° 57' 04" S 114° 44' 39" E thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 21° 37' 40" S 114° 23' 44" E.

YMMM/R852B Learmonth

Nature of Activity Military flying
Vertical Limits FL280-FL600
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

20° 24' 43" S 114° 59' 27" E, thence the minor arc of a circle of 120NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 21° 22' 24" S 116° 02' 08" E, 21° 57' 04" S 114° 44' 39" E thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 21° 37' 40" S 114° 23' 44" E.

YMMM/R853A Learmonth

Nature of Activity Military flying training
Vertical Limits NOTAM-FL280
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

19° 52' 35" S 113° 10' 54" E thence the minor arc of a circle of 150NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 19° 57' 19" S 115° 12' 42" E, 20° 52' 05" S 114° 46' 07" E thence the minor arc of a circle of 90NM radius centred on Learmonth DME to 20° 49' 14" S 113° 32' 34" E.

YMMM/R853B Learmonth

Nature of Activity Military flying
Vertical Limits FL280-FL600
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

19° 52' 35" S 113° 10' 54" E thence the minor arc of a circle of 150NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 19° 57' 19" S 115° 12' 42" E, 20° 52' 05" S 114° 46' 07" E thence the minor arc of a circle of 90NM radius centred on Learmonth DME to 20° 49' 14" S 113° 32' 34" E.

YMMM/R854A Learmonth

Nature of Activity Military flying
Vertical Limits NOTAM-FL280
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

20° 49' 14" S 113° 32' 34" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 20° 52' 05" S 114° 46' 07" E, 21° 37' 40" S 114° 23' 44" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 21° 36' 25" S 113° 50' 49" E.

YMMM/R854B Learmonth

Nature of Activity Military flying
Vertical Limits FL280-FL600
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

20° 49' 14" S 113° 32' 34" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 20° 52' 05" S 114° 46' 07" E, 21° 37' 40" S 114° 23' 44" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 21° 36' 25" S 113° 50' 49" E.

YMMM/R859A Learmonth

Nature of Activity Military flying
Vertical Limits NOTAM-10 000
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

A circle of 40NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E).

YMMM/R859B Learmonth

Nature of Activity Military flying
Vertical Limits 10 000-FL280
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

A circle of 40NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E).

YMMM/R859C Learmonth

Nature of Activity Military flying
Vertical Limits FL280-FL600
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

A circle of 40NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E).

YMMM/R860A Learmonth

Nature of Activity Military flying
Vertical Limits NOTAM-2 500
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

A circle of 25NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E).

YMMM/R860B Learmonth

Nature of Activity Military flying
Vertical Limits 2 500-FL280
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

A circle of 25NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E).

YMMM/R860C Learmonth

Nature of Activity Military flying
Vertical Limits FL280-FL600
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

A circle of 25NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E).

YMMM/R861A Learmonth

Nature of Activity Military flying
Vertical Limits NOTAM-FL280
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

22° 29' 33" S 112° 29' 59" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 20° 49' 14" S 113° 32' 34" E, 21° 36' 25" S 113° 50' 49" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 22° 21' 08" S 113° 23' 11" E.

YMMM/R861B Learmonth

Nature of Activity Military flying
Vertical Limits FL280-FL950
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

22° 29' 33" S 112° 29' 59" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 20° 49' 14" S 113° 32' 34" E, 21° 36' 25" S 113° 50' 49" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 22° 21' 08" S 113° 23' 11" E.

YMMM/R862A Learmonth

Nature of Activity Military flying
Vertical Limits NOTAM-FL280
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

22° 39' 16" S 111° 26' 00" E, thence the minor arc of a circle of 150NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 19° 52' 35" S 113° 10' 54" E, 20° 49' 14" S 113° 32' 34" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME to 22° 29' 33" S 112° 29' 59" E.

YMMM/R862B Learmonth

Nature of Activity Military flying
Vertical Limits FL280-FL950
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

22° 39' 16" S 111° 26' 00" E, thence the minor arc of a circle of 150NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 19° 52' 35" S 113° 10' 54" E, 20° 49' 14" S 113° 32' 34" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME to 22° 29' 33" S 112° 29' 59" E.

YMMM/R863A Learmonth

Nature of Activity Military flying
Vertical Limits NOTAM-FL280
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

22° 29' 33" S 112° 29' 59" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 23° 38' 56" S 113° 32' 16" E, 24° 35' 26" S 113° 09' 38" E, thence the minor arc of a circle of 150NM radius centred on Learmonth DME to 22° 39' 16" S 111° 26' 00" E.

YMMM/R863B Learmonth

Nature of Activity Military flying
Vertical Limits FL280-FL950
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

22° 29' 33" S 112° 29' 59" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 23° 38' 56" S 113° 32' 16" E, 24° 35' 26" S 113° 09' 38" E, thence the minor arc of a circle of 150NM radius centred on Learmonth DME to 22° 39' 16" S 111° 26' 00" E.

YMMM/R864A Learmonth

Nature of Activity Military flying
Vertical Limits NOTAM-FL280
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

23° 38' 56" S 113° 32' 16" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 22° 29' 33" S 112° 29' 59" E, 22° 21' 08" S 113° 23' 11" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 22° 51' 49" S 113° 50' 54" E.

YMMM/R864B Learmonth

Nature of Activity Military flying
Vertical Limits FL280-FL950
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

23° 38' 56" S 113° 32' 16" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 22° 29' 33" S 112° 29' 59" E, 22° 21' 08" S 113° 23' 11" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 22° 51' 49" S 113° 50' 54" E.

YMMM/R870A Learmonth

Nature of Activity Military flying
Vertical Limits NOTAM-FL250
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

22° 10' 43" S 113° 59' 06" E, thence along Line Road to 22° 14' 09" S 113° 58' 01" E, 22° 28' 39" S 114° 01' 32" E thence the minor arc of a circle of 15NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E), to 22° 06' 41" S 113° 51' 35" E.

YMMM/R870B Learmonth

Nature of Activity Military flying
Vertical Limits NOTAM-FL250
Chart Aus 4725

Controlling Authority FLTCDR 452SQN Darwin Flt
Times of Use NOTAM
Chartlet 8

22° 06' 41" S 113° 51' 35" E, thence the minor arc of a circle of 15NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 22° 28' 55" S 114° 02' 50" E, 22° 53' 37" S 113° 58' 10" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME, to 21° 54' 07" S 113° 28' 18" E.

SOUTH AUSTRALIA**YMMM/R231 Adelaide**

Nature of Activity Military flying
Vertical Limits SFC-2500
Chart Aus 781

Controlling Authority FLTCDR 453SQN Edinburgh Flt
Times of Use HJ JO OT by NOTAM
Chartlet 10

34° 47' 27" S 138° 24' 26" E, thence the minor arc of a circle of 11 NM radius centred on Adelaide DME (34° 56' 49" S 138° 31' 28" E), to 34° 57' 08" S 138° 18' 06" E, 34° 58' 09" S 137° 47' 42" E, thence the minor arc of a circle of 36 NM radius centred on Adelaide DME, to 34° 26' 08" S 138° 08' 33" E.

YMMM/R245 Dangerous Reef

Nature of Activity Naval operations
Vertical Limits NOTAM
Chart Aus 776

Controlling Authority Navy
Times of Use NOTAM
Chartlet 10

A circle of 1.0NM radius centred on 34° 55' 54" S 136° 14' 30" E.

YMMM/R246 Thistle Island
Nature of Activity Naval operations
Vertical Limits NOTAM
Chart Aus 776

Controlling Authority Navy
Times of Use NOTAM
Chartlet 10

A circle of 2.0NM radius centred on 34° 59' 42" S 136° 13' 12" E.

YMMM/R252 Alamein

Nature of Activity Military flying/non-flying
Vertical Limits SFC-NOTAM
Chart Aus 778

Controlling Authority Army DOTAM SA
Times of Use NOTAM
Chartlet 10

(a) 32° 49' 39" S 137° 36' 33" E
 (d) 32° 44' 36" S 137° 48' 35" E
 (g) 32° 53' 28" S 137° 36' 53" E.

(b) 32° 40' 46" S 137° 40' 04" E
 (e) 32° 54' 06" S 137° 48' 34" E

(c) 32° 40' 49" S 137° 46' 44" E
 (f) 32° 58' 24" S 137° 42' 43" E

YMMM/R254 North East Rock

Nature of Activity Military flying/non-flying
Vertical Limits NOTAM-FL200
Chart Aus 776

Controlling Authority FLTCDR 453SQN Edinburgh Fit
Times of Use NOTAM
Chartlet 10

35° 07' 00" S 136° 21' 43" E, thence the major arc of a circle of 7 NM radius centred on 35° 04' 30" S 136° 29' 40" E, to 35° 07' 00" S 136° 37' 37" E.

YMMM/R279 Edinburgh

Nature of Activity Military flying/non-flying
Vertical Limits SFC-FL250
Chart Aus 780 & 781

Controlling Authority FLTCDR 453SQN Edinburgh Fit
Times of Use NOTAM
Chartlet 10

35° 18' 08" S 136° 52' 48" E, thence N along the coast of Yorke Peninsula, to 34° 58' 12" S 137° 46' 05" E, 34° 57' 38" S 138° 03' 31" E, thence the minor arc of a circle of 23 NM radius centred on Adelaide DME (34° 56' 49" S 138° 31' 28" E), to 35° 05' 02" S 138° 05' 19" E, 35° 35' 27" S 137° 23' 33" E, thence W along the N coast of Kangaroo Island, to 35° 43' 19" S 136° 43' 13" E, thence the minor arc of a circle of 100 NM radius centred on Adelaide DME, to 35° 21' 44" S 136° 33' 21" E.

YMMM/R282 Adelaide

Nature of Activity Military flying/non-flying
Vertical Limits SFC-FL600
Chart Aus 347

Controlling Authority FLTCDR 453SQN Edinburgh Fit
Times of Use NOTAM
Chartlet 10

36° 10' 00" S 138° 10' 00" E, 36° 15' 26" S 137° 31' 00" E, 36° 52' 11" S 137° 04' 08" E, thence along the minor arc of a circle of 150 NM radius centred on Edinburgh TCN (34° 42' 17" S 138° 36' 45" E), to 37° 03' 57" S 139° 38' 12" E, 35° 54' 48" S 139° 07' 39" E, 35° 42' 02" S 138° 57' 43" E, thence the minor arc of a circle of 50 NM radius centred on Adelaide DME (34° 56' 49" S 138° 31' 28" E), to 35° 45' 40" S 138° 18' 03" E.

YMMM/R292A Port Wakefield

Nature of Activity Military flying/non-flying
Vertical Limits SFC-8 500
Chart Aus 781

Controlling Authority Army RCO Port Wakefield
Times of Use H24
Chartlet 10

(a) 34° 27' 06" S 138° 08' 30" E
 thence SE along Port Wakefield Road to
 (f) 34° 27' 15" S 138° 13' 29" E.

(b) 34° 13' 30" S 138° 08' 30" E
 (d) 34° 19' 57" S 138° 16' 15" E

(c) 34° 13' 30" S 138° 11' 59" E
 (e) 34° 25' 18" S 138° 16' 06" E

YMMM/R292B Port Wakefield

Nature of Activity Military flying/non-flying
Vertical Limits 8 500-NOTAM
Chart Aus 781

Controlling Authority Army RCO Port Wakefield
Times of Use NOTAM
Chartlet 10

(a) 34° 27' 06" S 138° 08' 30" E
 thence SE along Port Wakefield Road to
 (f) 34° 27' 15" S 138° 13' 29" E.

(b) 34° 13' 30" S 138° 08' 30" E
 (d) 34° 19' 57" S 138° 16' 15" E

(c) 34° 13' 30" S 138° 11' 59" E
 (e) 34° 25' 18" S 138° 16' 06" E

YMMM/R292C Port Wakefield

Nature of Activity Military flying/non-flying
Vertical Limits NOTAM
Chart Aus 781

Controlling Authority Army RCO Port Wakefield
Times of Use NOTAM
Chartlet 10

(a) 34° 25' 47" S 138° 15' 27" E
 (d) 34° 27' 06" S 138° 08' 30" E

(b) 34° 29' 30" S 138° 16' 30" E
 (e) 34° 27' 15" S 138° 13' 29" E.

(c) 34° 29' 30" S 138° 08' 30" E

YMMM/R292D Port Wakefield

Nature of Activity Military flying/non-flying
Vertical Limits NOTAM
Chart Aus 781

Controlling Authority Army RCO Port Wakefield
Times of Use NOTAM
Chartlet 10

(a) 34° 29' 30" S 138° 16' 30" E
 (d) 34° 29' 30" S 138° 08' 30" E.

(b) 34° 34' 00" S 138° 18' 00" E

(c) 34° 34' 00" S 138° 08' 30" E

YMMM/R292E Port Wakefield*Nature of Activity* Military flying/non-flying*Vertical Limits* SFC-NOTAM*Chart* Aus 781

(a) 34° 24' 00" S 138° 03' 30" E

(d) 34° 24' 00" S 138° 08' 30" E.

Controlling Authority Army RCO Port Wakefield*Times of Use* NOTAM*Chartlet* 10

(b) 34° 13' 30" S 138° 03' 30" E

(c) 34° 13' 30" S 138° 08' 30" E

YMMM/R292F Port Wakefield*Nature of Activity* Military flying/non-flying*Vertical Limits* SFC-NOTAM*Chart* Aus 781

(a) 34° 24' 00" S 138° 03' 30" E

(d) 34° 34' 00" S 138° 08' 30" E

Controlling Authority Army RCO Port Wakefield*Times of Use* NOTAM*Chartlet* 10

(b) 34° 29' 27" S 138° 03' 30" E

(c) 34° 34' 00" S 138° 06' 30" E

(e) 34° 24' 00" S 138° 08' 30" E.

VICTORIA AND TASMANIA**YMMM/R323A Western Port***Nature of Activity* Military flying/non-flying*Vertical Limits* SFC-9 000*Chart* Aus 788 and Aus 801

38° 30' 00" S 144° 55' 22" E, thence the major arc of a circle of 5NM radius centred on 38° 28' 55" S 145° 01' 35" E, to 38° 32' 52" S 145° 05' 28" E. 38° 35' 30" S 145° 08' 30" E, 38° 43' 58" S 145° 08' 32" E, thence the minor arc of a circle of 16 NM radius centred on 38° 28' 55" S 145° 01' 35" E, to 38° 32' 23" S 144° 41' 41" E.

Controlling Authority Navy HMAS Cerberus*Times of Use* NOTAM*Chartlet* 11**YMMM/R323B Western Port***Nature of Activity* Military flying/non-flying*Vertical Limits* SFC-FL550*Chart* Aus 788 and Aus 801

(a) 38° 29' 07" S 145° 02' 00" E

thence the minor arc of a circle of 16 NM radius centred on 38° 28' 55" S 145° 01' 35" E, to 38° 44' 55" S 145° 02' 00" E.

(b) 38° 28' 55" S 145° 01' 35" E

(c) 38° 32' 23" S 144° 41' 41" E

Controlling Authority Navy HMAS Cerberus*Times of Use* NOTAM*Chartlet* 11**YMMM/R332 Hanns Inlet***Nature of Activity* Military non-flying*Vertical Limits* SFC-2 000*Chart* Aus 152

A circle of 1.5 NM radius centred on 38° 22' 48" S 145° 12' 00" E.

Controlling Authority Navy HMAS Cerberus*Times of Use* D2100-1300 EXPH (1 Hr earlier HDS) OT NOTAM*Chartlet* 11**YMMM/R339 Cape Schanck***Nature of Activity* Military flying/non-flying*Vertical Limits* NOTAM-FL550*Chart* Aus 788 and Aus 801

(a) 38° 51' 00" S 144° 21' 00" E

thence the minor arc of a circle of 16 NM radius centred on 38° 28' 55" S 145° 01' 35" E, to

(d) 38° 44' 45" S 145° 04' 34" E

(b) 38° 38' 00" S 144° 41' 00" E

(c) 38° 36' 16" S 144° 43' 28" E

(e) 38° 49' 30" S 144° 56' 30" E

(f) 39° 02' 00" S 144° 34' 00" E.

Controlling Authority Navy HMAS Cerberus*Times of Use* NOTAM*Chartlet* 11**YMMM/R362A Stony Head***Nature of Activity* Military non-flying*Vertical Limits* SFC-3 500*Chart* Aus 798

(a) 41° 03' 10" S 146° 56' 25" E

(c) 41° 00' 01" S 147° 04' 50" E

(b) 41° 01' 44" S 146° 55' 54" E

thence along the coast to

(d) 41° 03' 54" S 147° 04' 06" E.

Controlling Authority Army DOTAM VIC/TAS*Times of Use* NOTAM*Chartlet* 11**YMMM/R362B Stony Head***Nature of Activity* Military non-flying*Vertical Limits* 3 500-NOTAM*Chart* Aus 798

(a) 41° 03' 10" S 146° 56' 25" E

(c) 41° 00' 01" S 147° 04' 50" E

(b) 41° 01' 44" S 146° 55' 54" E

thence along the coast to

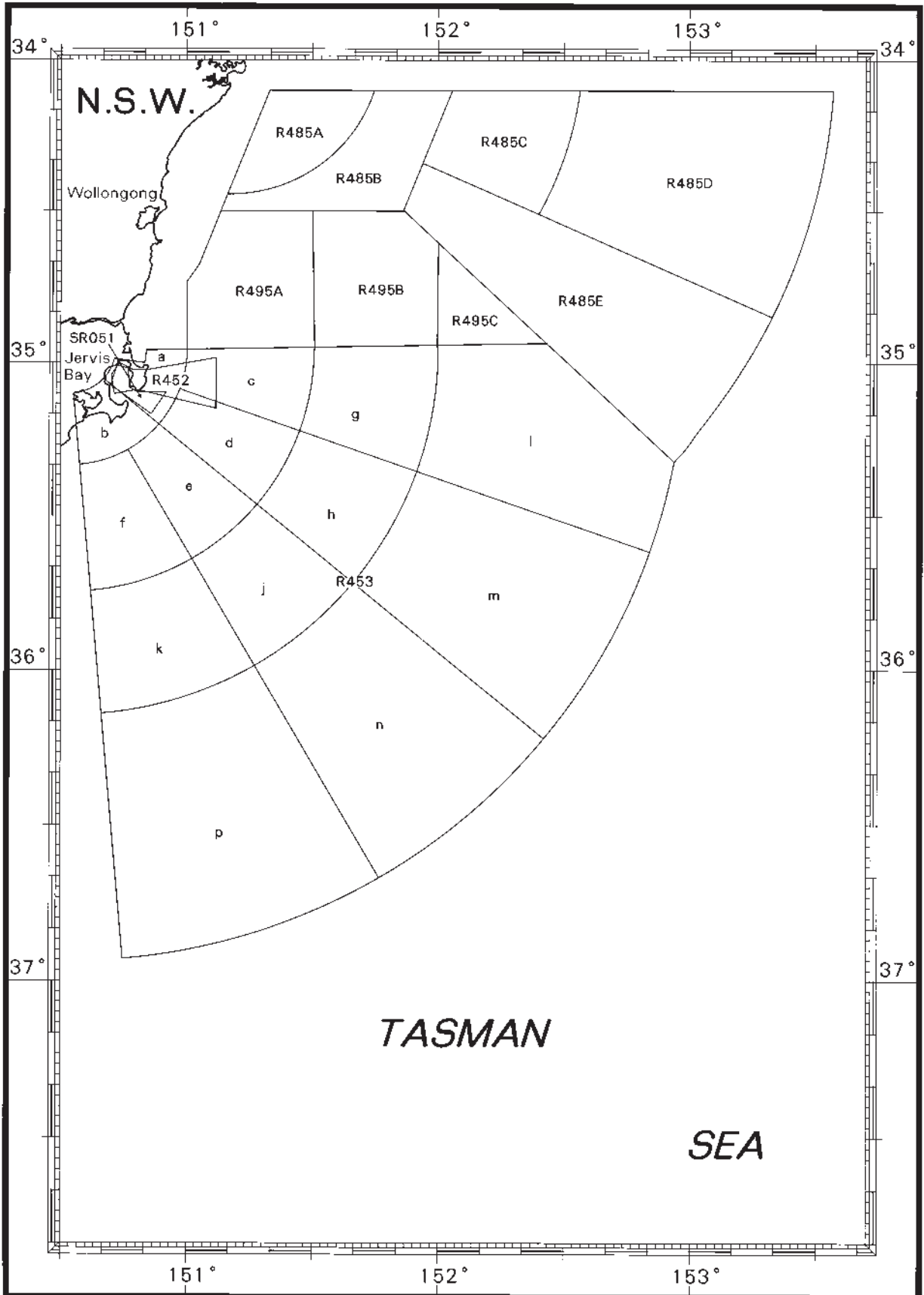
(d) 41° 03' 54" S 147° 04' 06" E.

Controlling Authority Army DOTAM VIC/TAS*Times of Use* NOTAM*Chartlet* 11**YMMM/R374 Swan Island***Nature of Activity* Military flying/non-flying*Vertical Limits* SFC-1 500*Chart* Aus 158

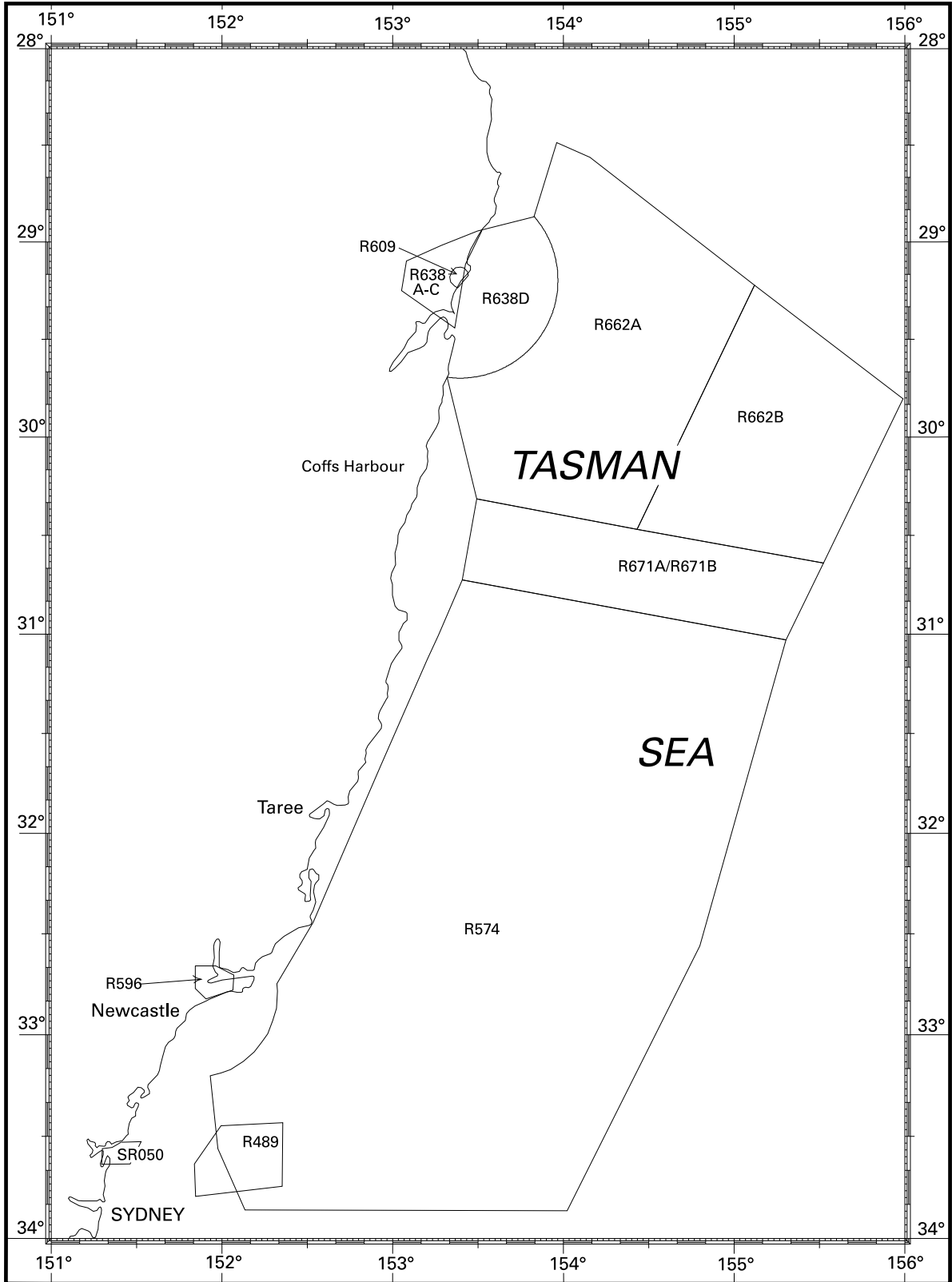
A circle of 1 NM radius centred on 38° 14' 50" S 144° 41' 30" E.

Controlling Authority Army RCO Swan Island*Times of Use* H24*Chartlet* 11

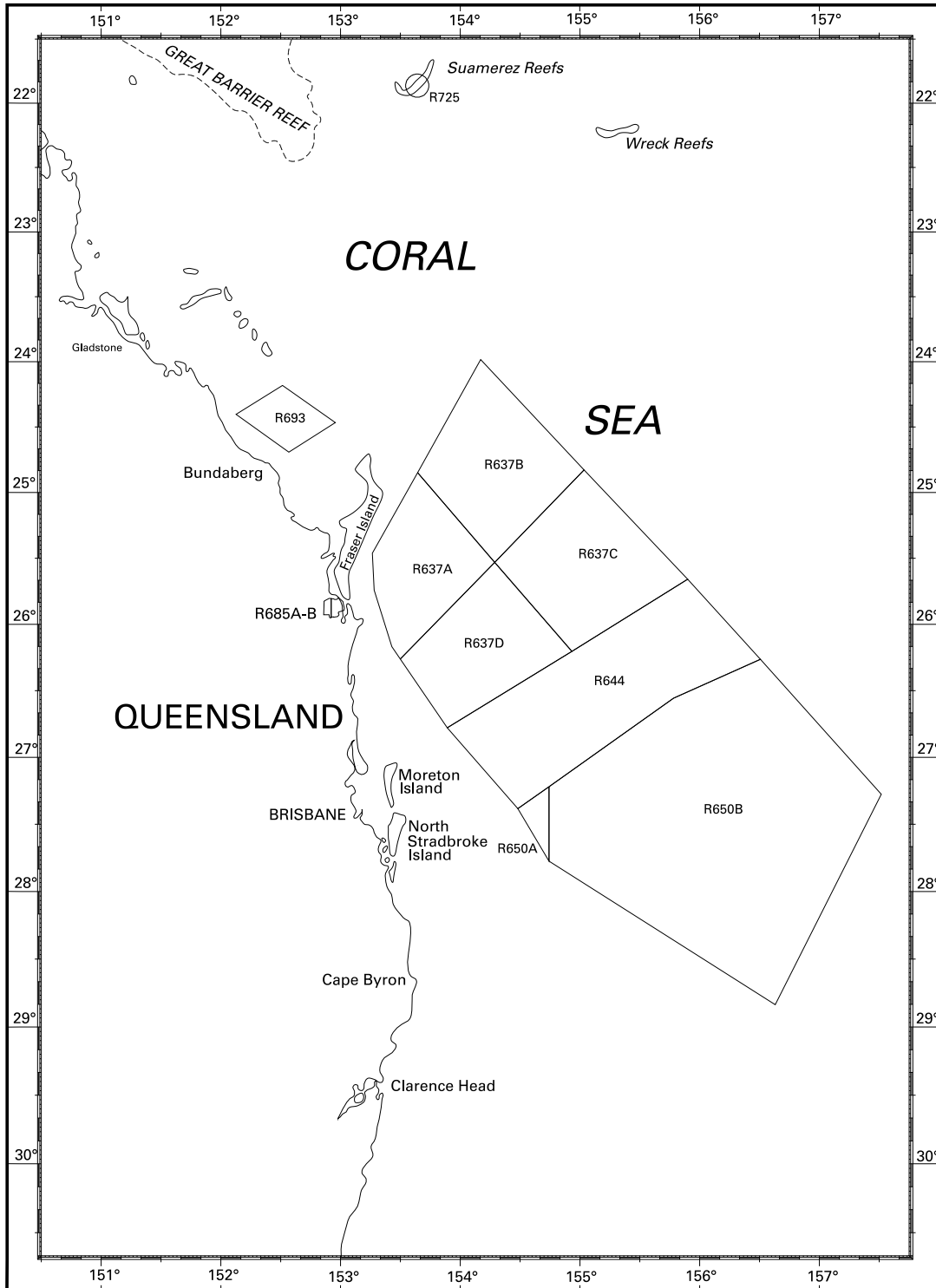
Tasman Sea - Jervis Bay



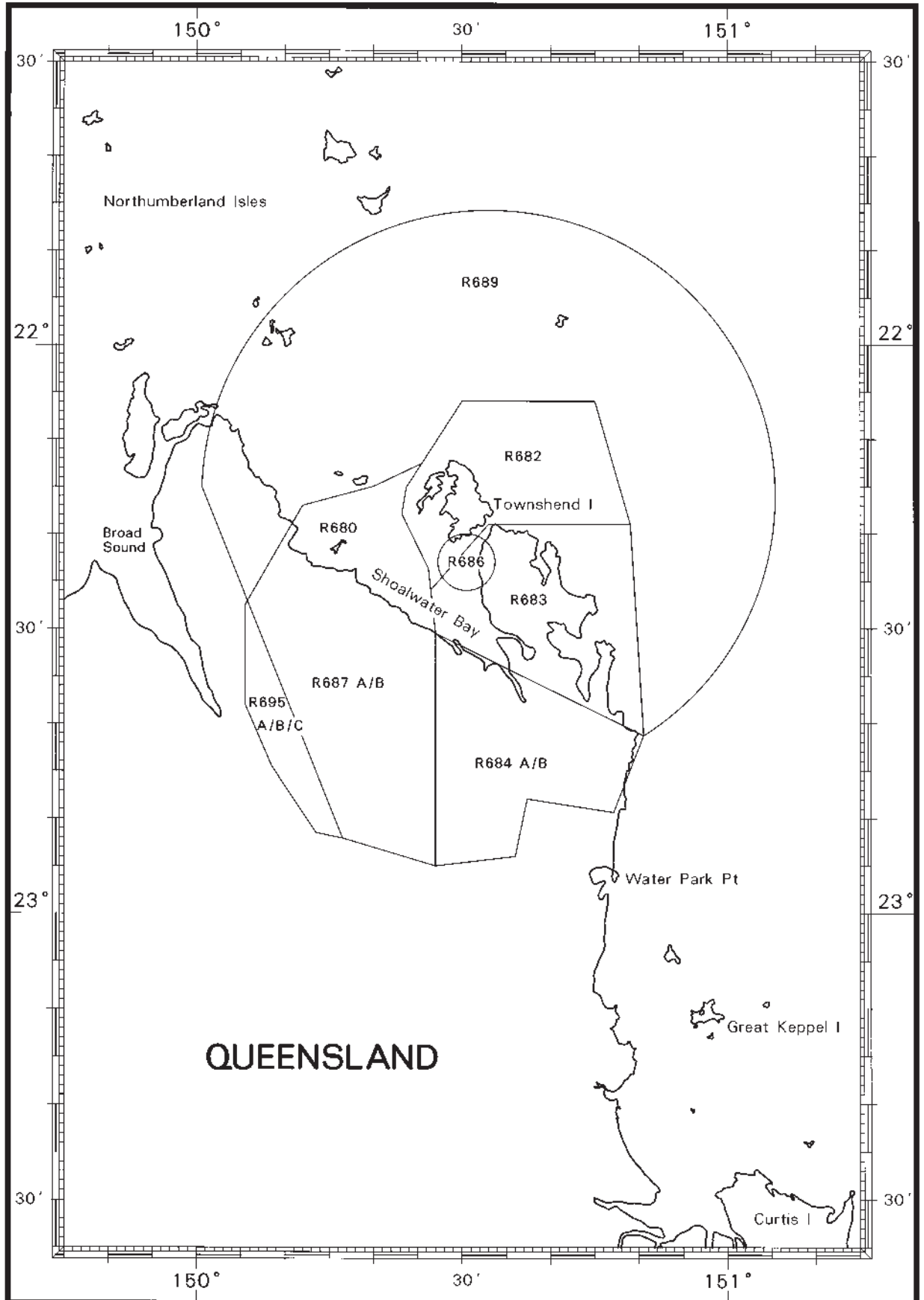
Tasman Sea - Newcastle



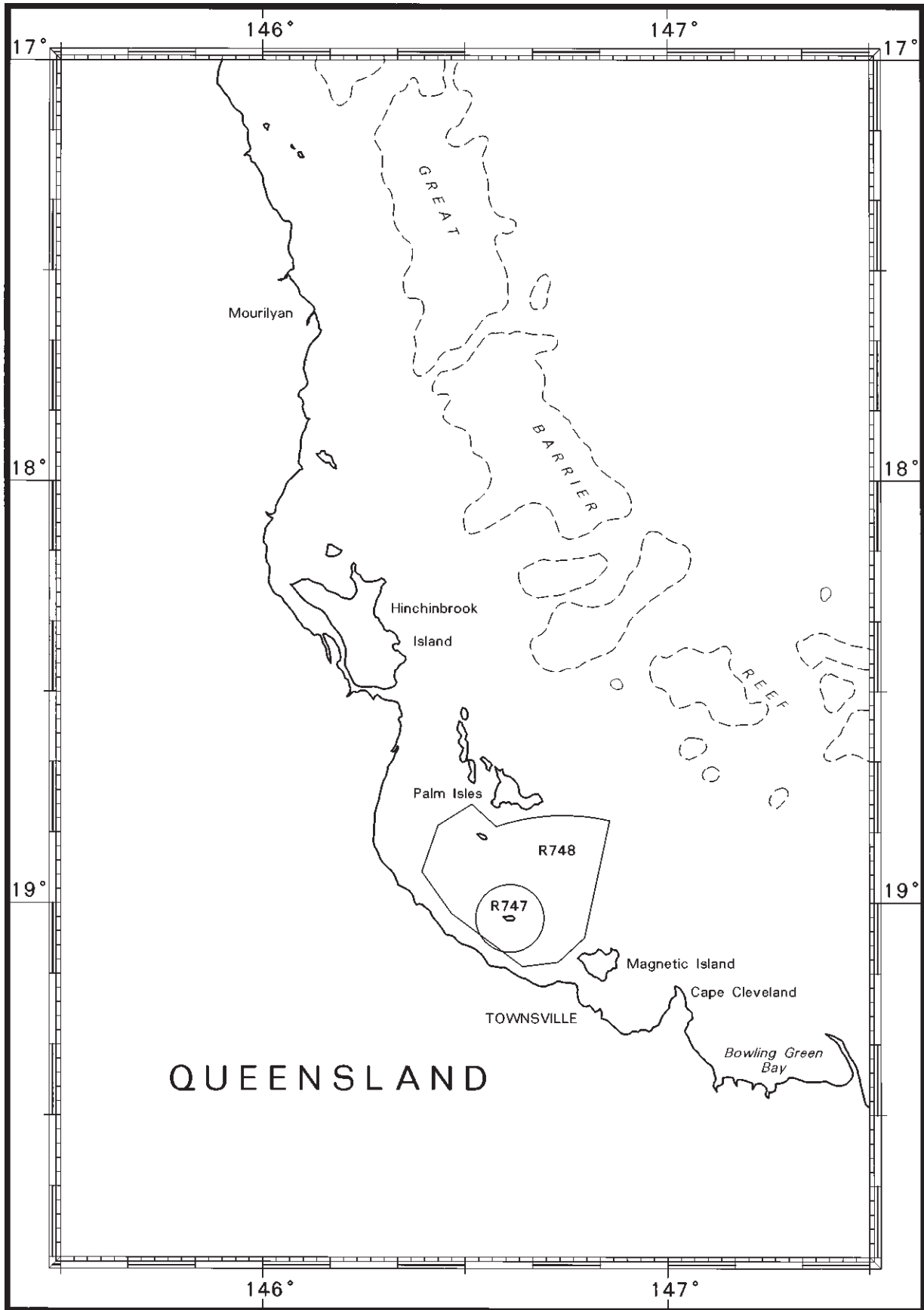
Queensland South – Coral Sea



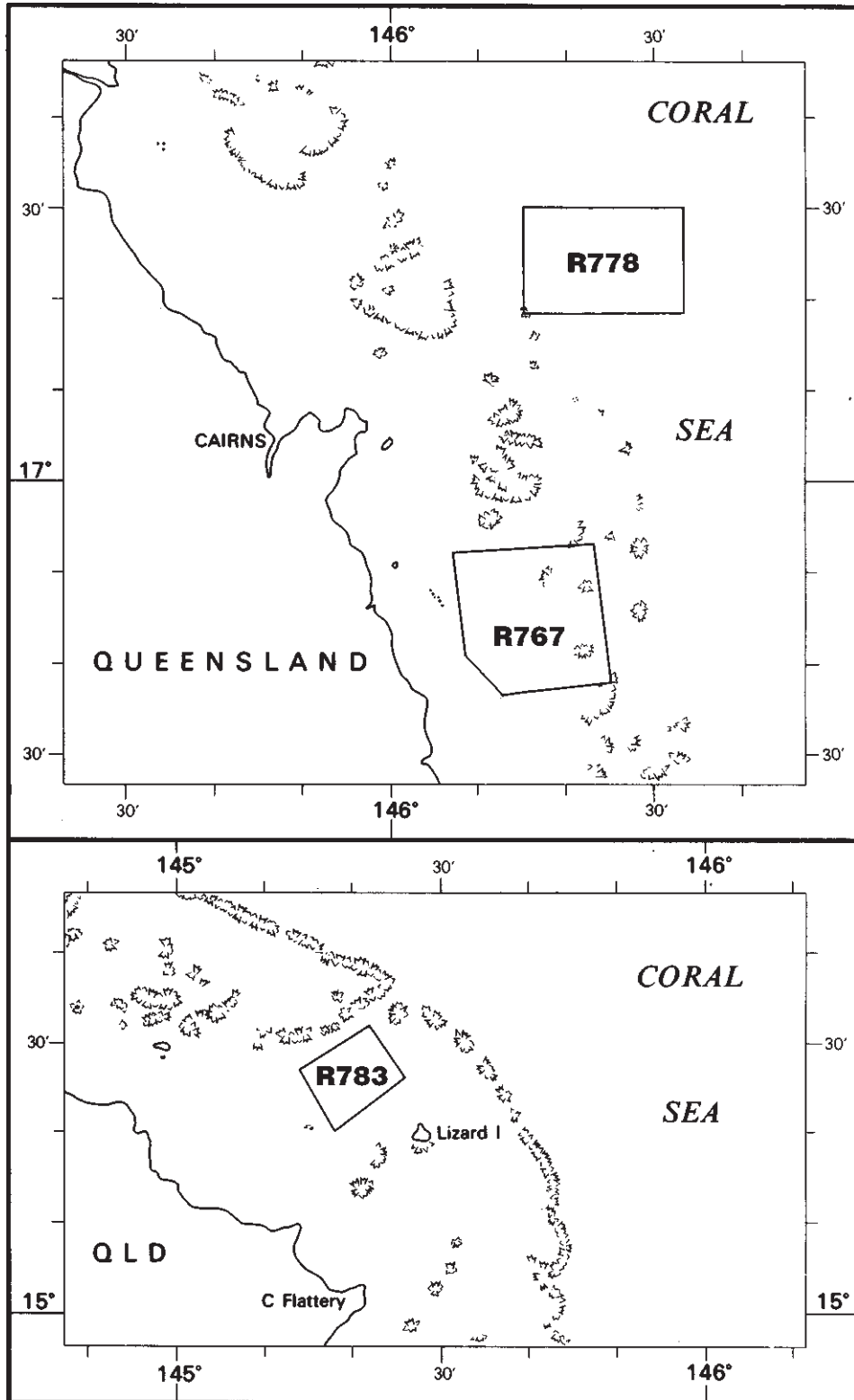
Shoalwater Bay



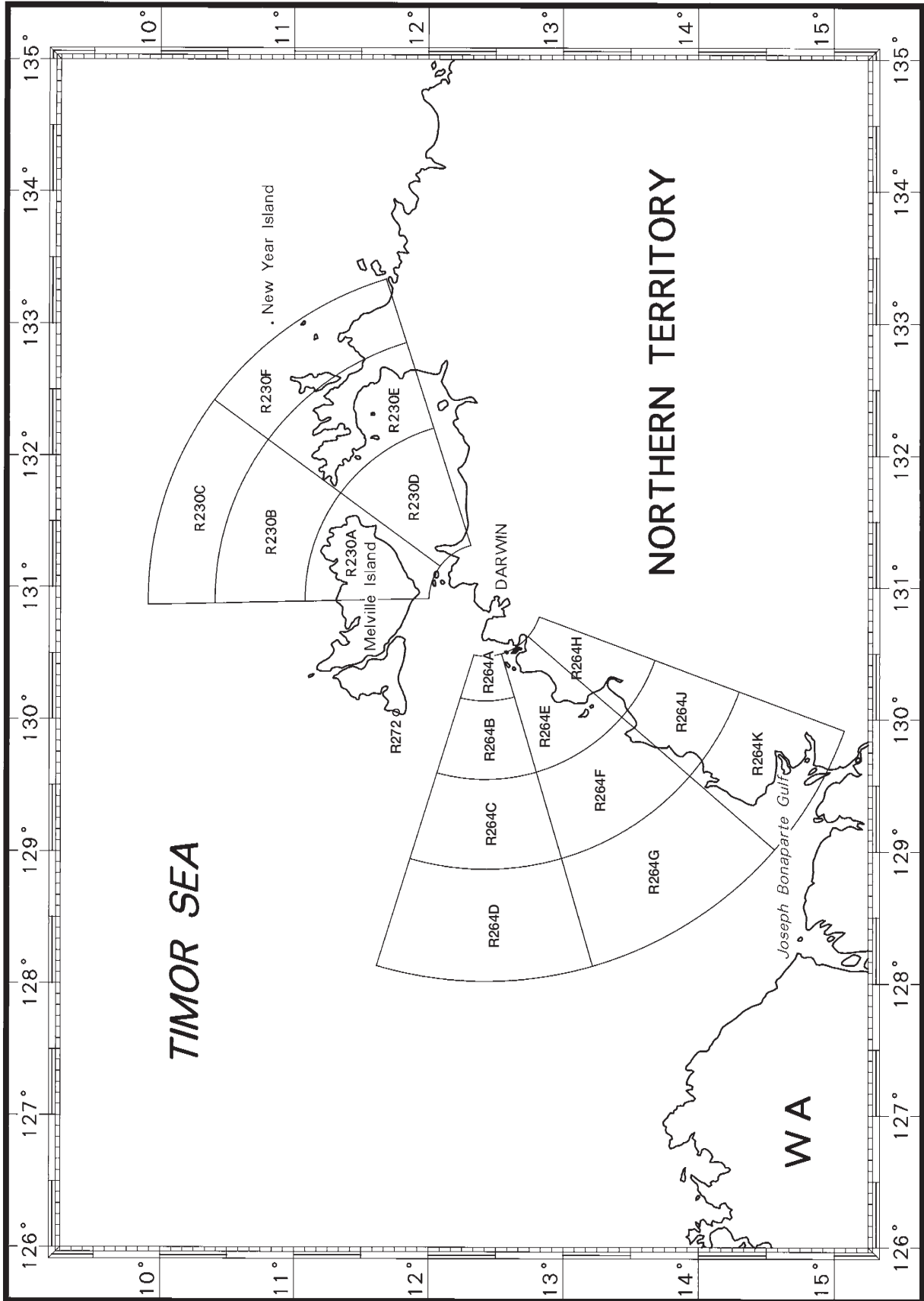
Townsville



Queensland North - Coral Sea



Northern Territory

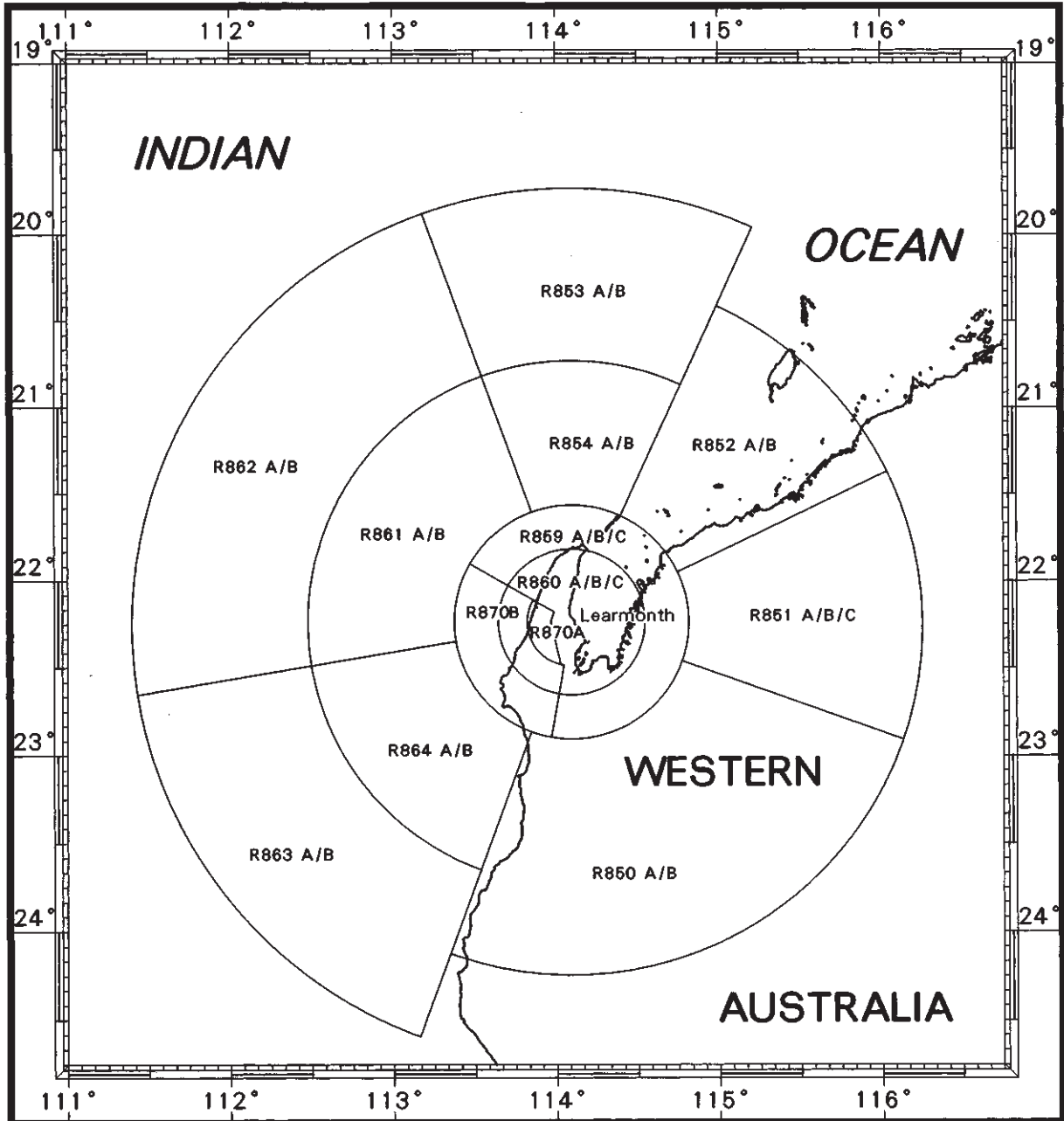


TIMOR SEA

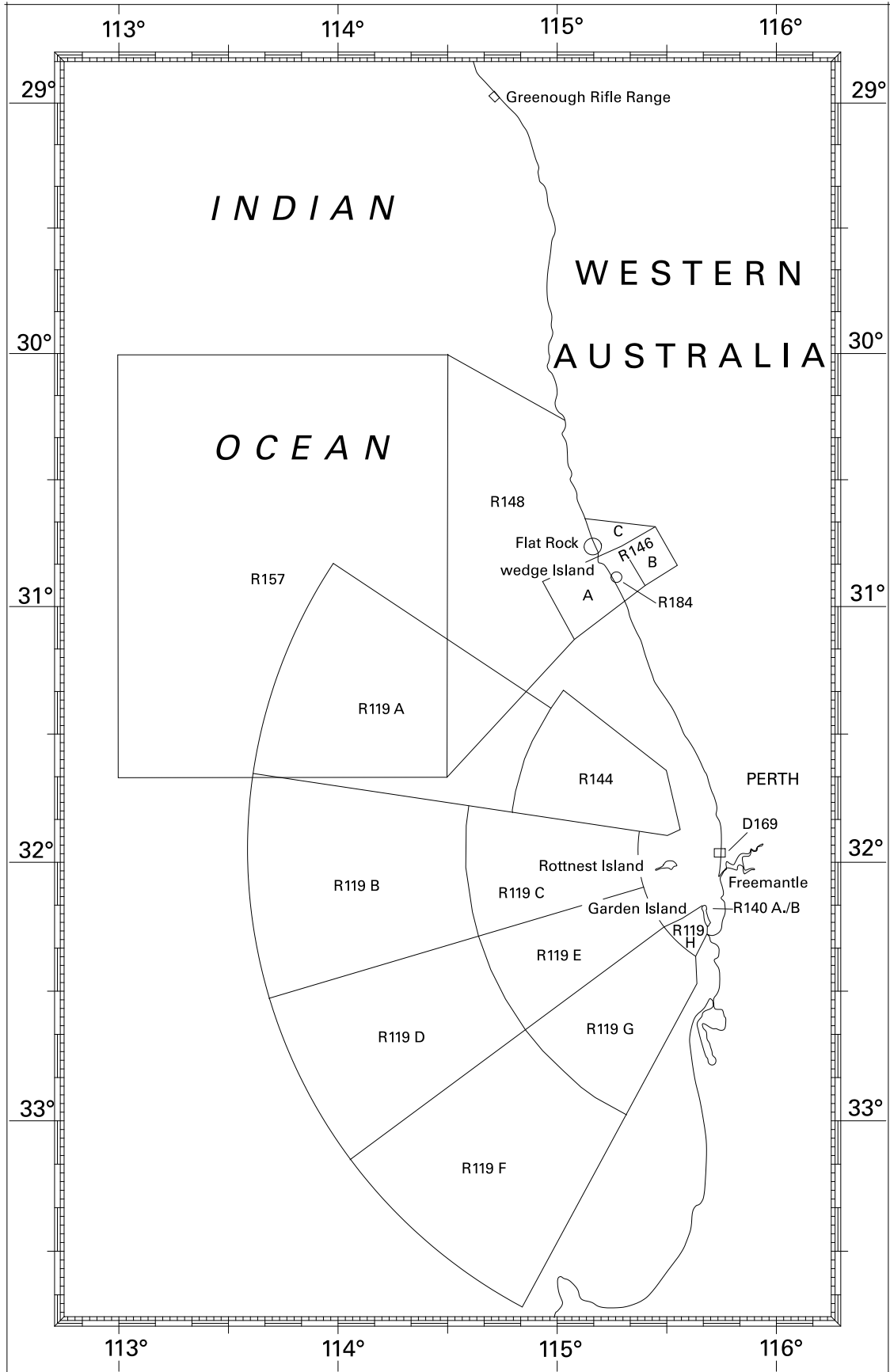
NORTHERN TERRITORY

WA

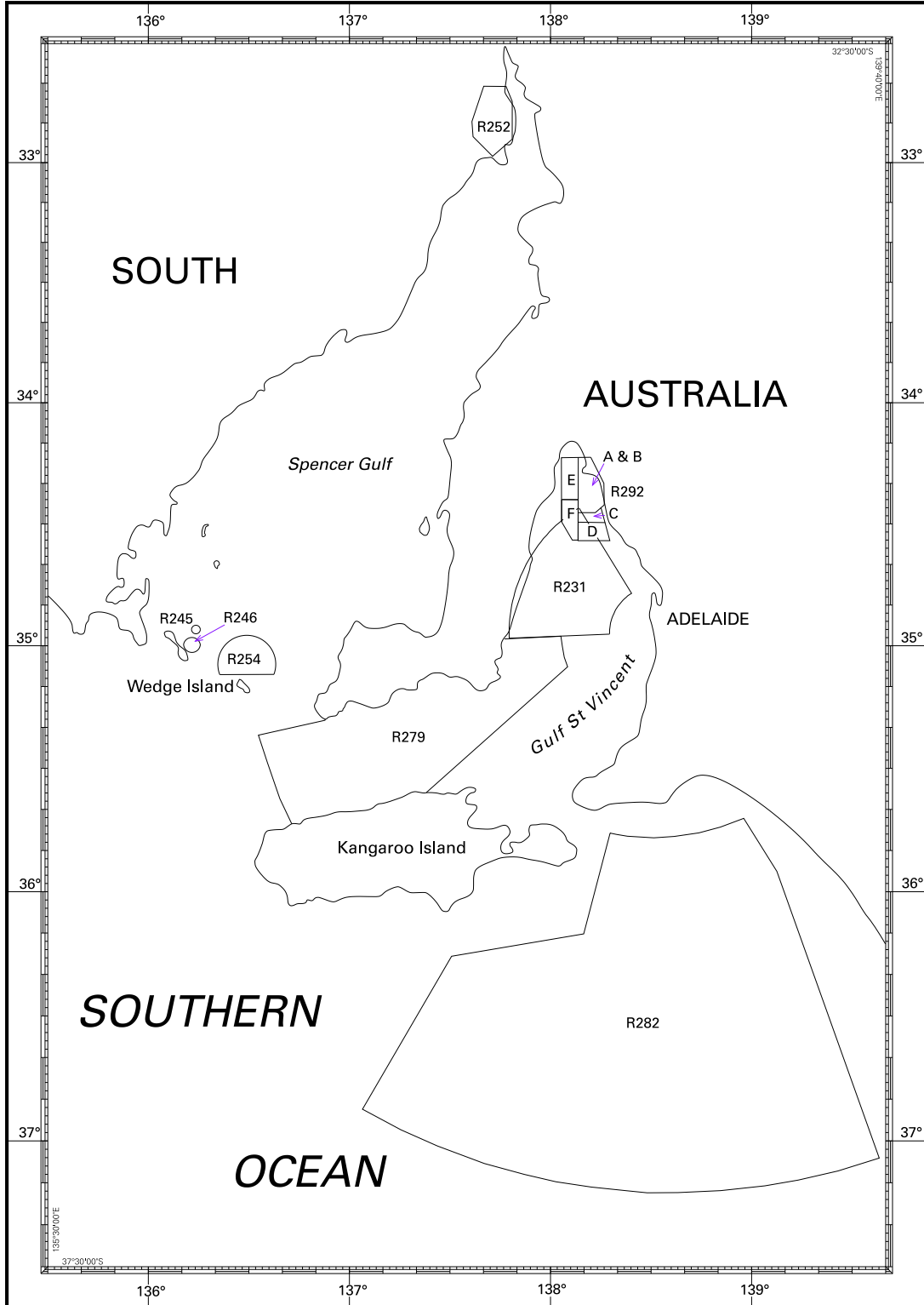
North West Cape



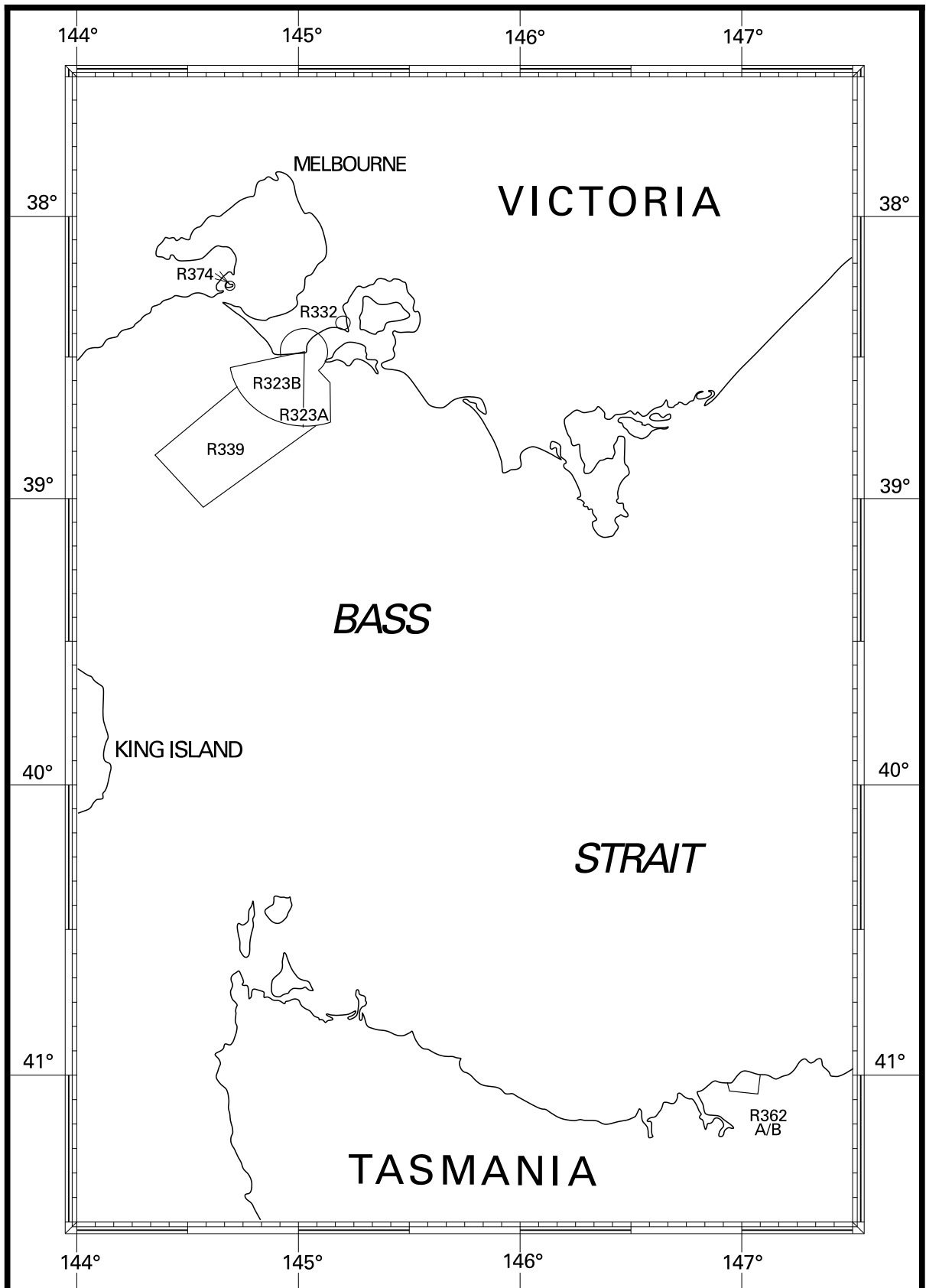
Western Australia – South West



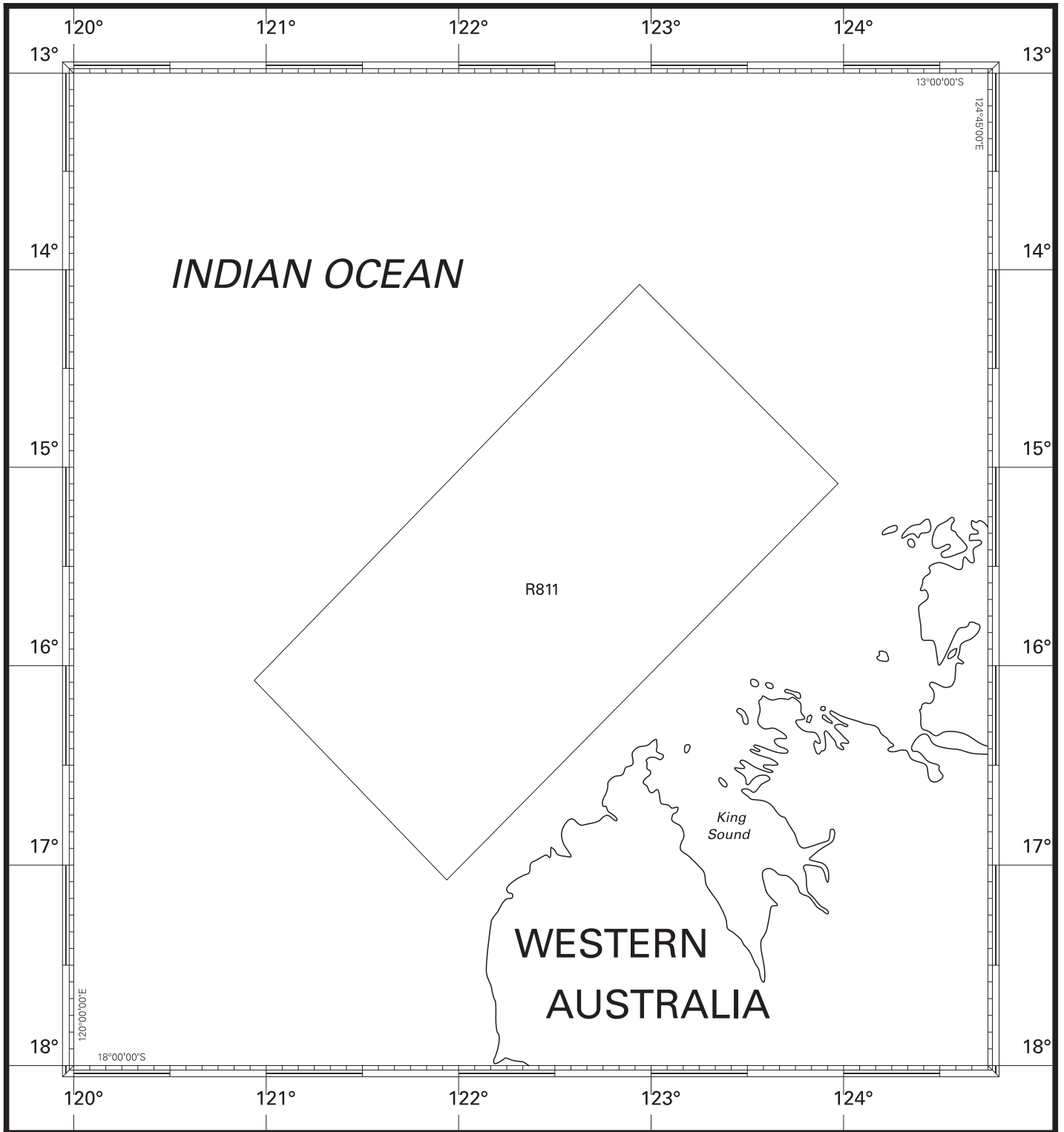
South Australia



Bass Strait - Victoria Tasmania



Western Australia



12

**9A. RESTRICTED AND DANGER AREAS WITH ASSOCIATED AIRSPACE
PAPUA NEW GUINEA**

AY/R921 Port Moresby

Nature of Activity Gunnery

Vertical Limits SFC-FL200

Chart Aus 505

(a) 9° 38' 00" S 146° 52' 00" E

(d) 9° 44' 00" S 146° 38' 30" E.

Controlling Authority Department of Defence

Times of Use NOTAM

Chartlet 1

(b) 9° 41' 30" S 146° 55' 30" E

(c) 9° 55' 00" S 146° 50' 00" E

AY/R962 Admiralty Islands

Nature of Activity Gunnery and weapons

Vertical Limits SFC-FL200

Chart Aus 462

(a) 0° 47' 00" S 147° 00' 00" E

(d) 1° 47' 00" S 147° 00' 00" E.

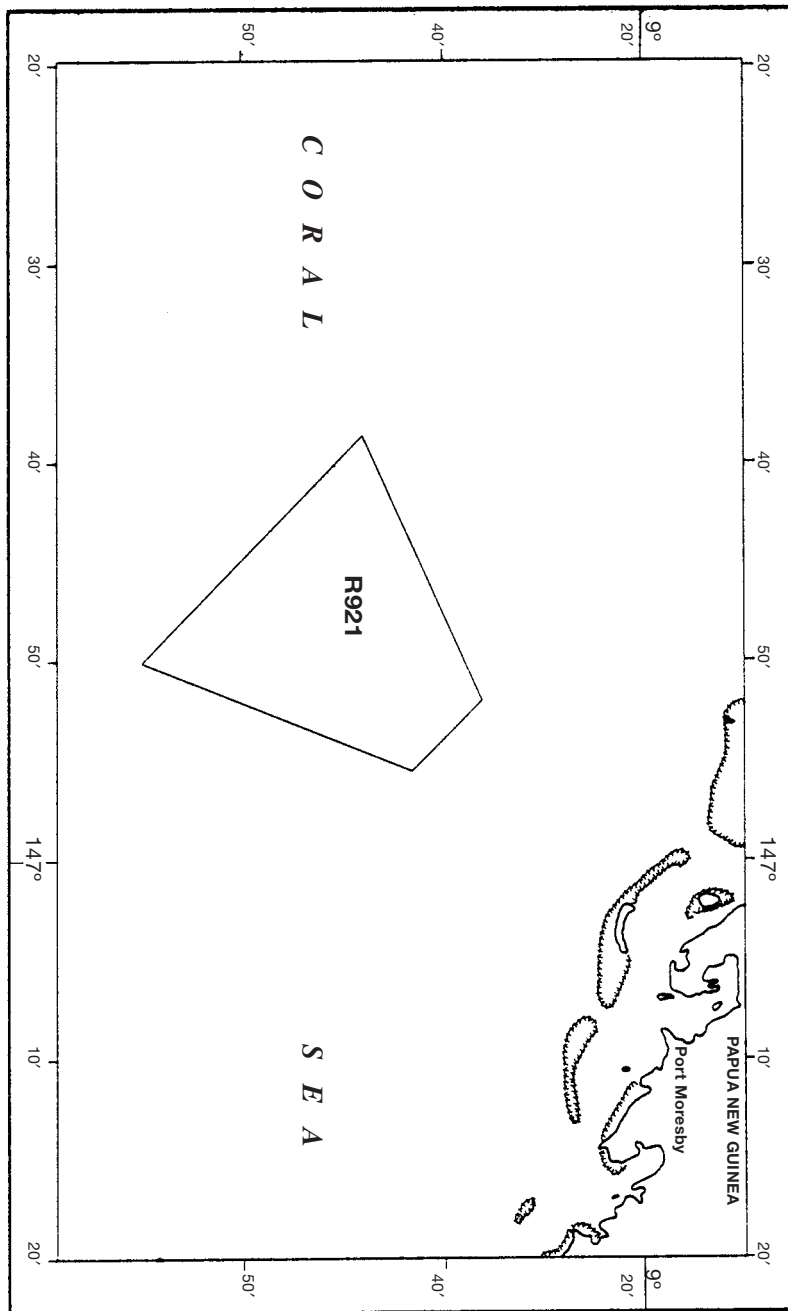
Controlling Authority Department of Defence

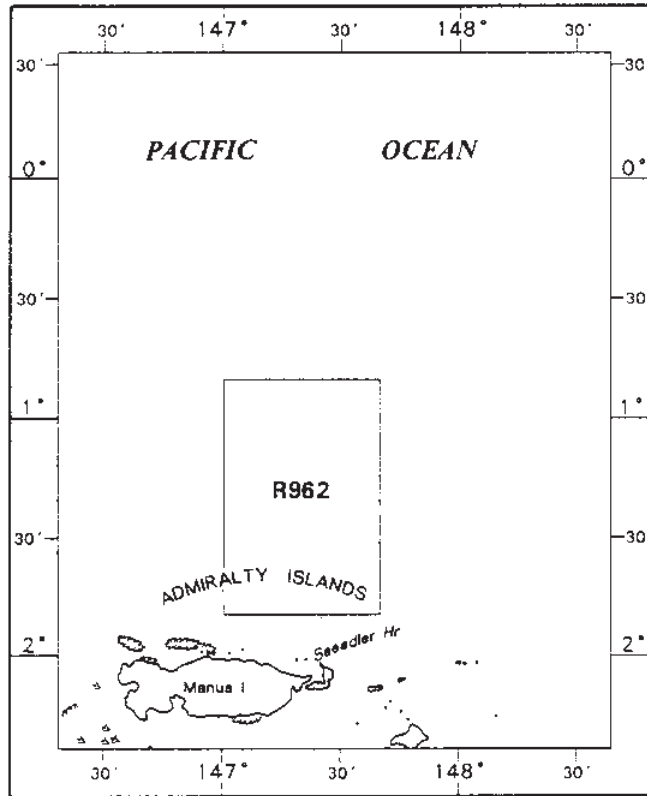
Times of Use NOTAM

Chartlet 2

(b) 0° 47' 00" S 147° 40' 00" E

(c) 1° 47' 00" S 147° 40' 00" E





2



10A. DIFFERENTIAL GPS.

1. The Australian Maritime Safety Authority (AMSA) operates sixteen Differential GPS (DGPS) broadcasting stations along Australia's coastline. The data broadcast from these stations informs users of the integrity of GPS and enables mariners to achieve greater accuracy from their GPS receivers. Based on signal monitoring results position fixing accuracies of better than 10 metres (95% probability) will be obtained within each station's coverage area.

2. Each broadcasting station transmits DGPS data on a radio frequency in the band allocated for maritime radionavigation (285 to 325 kHz in the Australian region).

3. The transmitted data complies with the recommendations of the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA). In particular, the transmissions comply with the International Telecommunication Union *Recommendation ITU-R M.823 on Technical characteristics of differential transmissions for global navigation satellite systems from maritime radio beacons in the Frequency Bands 283.5-315 kHz in Region 1 and 285-325 kHz in Regions 2 and 3* (2006).

4. The latest information on the AMSA DGPS service can be obtained from AMSA's DGPS website at http://www.amsa.gov.au/Shipping_Safety/Navigation_Safety/Differential_Global_Positioning_System.

5. The locations and frequencies of the stations are:

<i>Site</i>	<i>Position (WGS84)</i>	<i>Frequency</i>
Albany (WA)	35° 05.25' S 117° 54.03' E	315 kHz
Brisbane (QLD)	27° 04.15' S 153° 03.32' E	294 kHz
Cape Flattery (QLD)	14° 57.94' S 145° 18.05' E	304 kHz
Corny Point (SA)	34° 53.97' S 137° 00.88' E	316 kHz
Crib Point (VIC)	38° 21.61' S 145° 10.19' E	314 kHz
Darwin (NT)	12° 26.72' S 130° 57.51' E	294 kHz
Exmouth (WA)	21° 53.05' S 114° 08.04' E	297 kHz
Gladstone (QLD)	24° 02.21' S 151° 21.53' E	313 kHz
Horn Island (QLD)	10° 35.52' S 142° 16.48' E	320 kHz
Ingham (QLD)	18° 33.34' S 146° 18.35' E	306 kHz
Karratha (WA)	20° 42.41' S 116° 46.44' E	304 kHz
Mackay (QLD)	21° 06.19' S 149° 12.68' E	315 kHz
Mallacoota (VIC)	37° 34.09' S 149° 44.16' E	318 kHz
Perth (WA)	31° 47.88' S 115° 56.01' E	306 kHz
Sydney (NSW)	33° 59.18' S 150° 58.67' E	308 kHz
Weipa (QLD)	12° 39.21' S 141° 51.61' E	316 kHz

6. To use the DGPS services a vessel needs either:

- (a) a GPS receiver with the capability of processing DGPS data fed to it in accordance with the RTCM standards, and a DGPS radio beacon receiver, which receives the data from the DGPS broadcasting station, demodulates the received data, and converts it into a form suitable for feeding to the GPS receiver; or
- (b) a differential GPS receiver that includes the radio beacon receiver within the unit (an all-in-one receiver).

7. Further information may be obtained from:

Aids to Navigation
 Maritime Standards Division,
 AMSA
 GPO Box 2181
 Canberra City ACT 2601
 Telephone +61 (0)2 6279 5927
 Fax +61 (0)2 6279 5966

Australian Maritime Safety Authority, Canberra.

(AA300412, AA300413)

10B. RADAR BEACONS (RACONS)

<i>Place</i>	<i>Ident</i>	<i>Band (Hz)</i>	<i>Range (NM)</i>	<i>Elev (m)</i>	<i>Position (WGS 84)</i>
Northern Territory					
*Cape Wessel	Y	9GHz 3GHz	20-27 23-27	55	11° 00'.28 S 136° 45'.57 E
Western Australia and Indian Ocean					
*Adele Island	C	9GHz 3GHz	16-23 20-25	34	15° 30'.62 S 123° 09'.46 E
Angel Production Platform	X				19° 29'.92 S 116° 35'.88 E
Bayu-Undan Floating Production Facility	K				11° 02'.97 S 126° 37'.08 E
*Bedout Island	O	9GHz 3GHz	15-22 18-23	25	19° 35'.35 S 119° 05'.99 E
*Browse Island	O	9GHz 3GHz	13-20 16-21	17	14° 06'.51 S 123° 32'.90 E
Dampier Sea Buoy	M	9GHz 3GHz			20° 25'.41 S 116° 42'.97 E
Enfield Floating Production Facility	N				21° 28'.82 S 114° 00'.51 E
Fremantle Fairway Buoy	C	9GHz 3GHz			31° 57'.13 S 115° 38'.81 E
Geraldton Fairway Buoy	G	9GHz 3GHz			28° 46'.19 S 114° 31'.72 E
*Imperieuse Reef	Q	9GHz 3GHz	16-23 20-25	32	17° 31'.00 S 118° 56'.92 E
Jabiru (RTM)	U	9GHz			11° 55'.55 S 125° 00'.40 E
*Lacrosse Island	M	9GHz 3GHz	27-33 30-35	114	14° 44'.28 S 128° 17'.82 E
*North Island	N	9GHz 3GHz	11-18 14-19	9	28° 17'.88 S 113° 35'.38 E
*Pelsaert Island	X	9GHz 3GHz	14-21 17-23	22	28° 59'.13 S 113° 57'.74 E
*Port Hedland C1 Beacon	G	9GHz 3GHz	11-18 14-19	9	19° 59'.54 S 118° 26'.10 E
*Port Walcott C1 Buoy	K	9GHz 3GHz	10-17 13-18	7	20° 23'. S 117° 25'.60 E
*Shoal Point	O	9GHz 3GHz	27-34 30-35	116	28° 03'.45 S 114° 12'.64 E
South Australia					
*Middle Bank South	M	9GHz 3GHz	11-17 9-15	11	33° 43'.99 S 137° 29'.81 E
*Robe	G	9GHz 3GHz	21-28 25-30	65	37° 09'.86 S 139° 44'.67 E
*South Neptunes Island	B	9GHz 3GHz	18-25 22-27	44	35° 20'.28 S 136° 07'.04 E
*South Page	O	9GHz 3GHz	11-18 14-19	9	35° 46'.65 S 138° 17'.48 E
*Troubridge Hill	K	9GHz 3GHz	21-28 24-29	63	35° 09'.96 S 137° 38'.44 E
Victoria					
Fawkner Light Beacon	F	9GHz 3GHz			37° 56'.93 S 144° 55'.61 E
*Flounder A Platform	Q	9GHz 3GHz	15-22 19-24	28	38° 18'.65 S 148° 26'.36 E
*Gabo Island	G	9GHz 3GHz	20-27 23-28	55	37° 34'.04 S 149° 55'.01 E
*Kingfish B Platform	B	9GHz 3GHz	16-23 20-25	34	38° 35'.82 S 148° 11'.28 E
Prince George Light Beacon	G	9GHz 3GHz			38° 06'.41 S 144° 44'.20 E
Western Port Fairway Buoy	Y				38° 30'.21 S 145° 05'.36 E

Tasmania					
*Maatsuyker Island	M	9GHz 3GHz	29-36 32-38	140	43° 39'.34 S 146° 16'.40 E
Queensland and Coral Sea					
*Bramble Cay	K	9GHz 3GHz	14-20 17-22	20	9° 08'.53 S 143° 52'.56 E
*Breaksea Spit Light Buoy	G	9GHz 3GHz	10-17 13-18	12	24° 21'.22 S 153° 08'.97 E
*Cape Bowling Green	O	9GHz 3GHz	17-24 21-26	34	19° 19'.61 S 147° 25'.54 E
*Carpentaria Light Buoy	G	9GHz 3GHz	9-16 12-17	4	10° 44'.49 S 141° 03'.38 E
*Creal Reef	M	9GHz 3GHz	16-23 20-25	34	20° 31'.87 S 150° 22'.68 E
*Dalrymple Islet	M	9GHz 3GHz	15-21 18-23	24	9° 36'.87 S 143° 17'.88 E
*Diamond Reign Reef	K	9GHz 3GHz	14-21 17-22	21	13° 11.56' S 143° 47.55' E
*Duyfken Point	K	9GHz 3GHz	19-26 22-27	48	12° 34'.15 S 141° 35'.98 E
*East Cay	G	9GHz 3GHz	16-23 19-24	30	9° 24'.11 S 144° 14'.22 E
*East Diamond Islet	M	9GHz 3GHz	16-22 19-24	29	17° 26'.45 S 151° 04'.53 E
*Euston Reef	K	9GHz 3GHz	13-20 17-22	18	16° 41'.08 S 146° 14'.86 E
*Fairway Channel	B	9GHz 3GHz	14-21 17-22	21	13° 54'.05 S 144° 14'.31 E
*Frederick Reefs	C	9GHz 3GHz	16-23 20-25	34	20° 56'.15 S 154° 24'.05 E
Gladstone S1 Light Beacon	G	9GHz 3GHz			23° 53'.92 S 151° 30'.40 E
*Gubbins Reef	C	9GHz 3GHz	10-17 13-18	7	15° 42'.58 S 145° 23'.83 E
*Kirkcaldie Reef	K	9GHz 3GHz	11-18 14-19	10	10° 20'.02 S 142° 49'.94 E
*Lady Elliot Island	B	9GHz 3GHz	17-24 21-26	38	24° 06'.87 S 152° 42'.69 E
*Lihou Reef	K	9GHz 3GHz	17-24 20-25	33	17° 07'.79 S 152° 08'.47 E
*North Reef	Q	9GHz 3GHz	14-21 18-23	23	23° 11'.10 S 151° 54'.19 E
*Piper Islands	G	9GHz 3GHz	13-20 17-22	12	12° 15'.07 S 143° 14'.92 E
*Pith Reef	G	9GHz 3GHz	16-22 19-24	29	18° 13'.30 S 147° 01'.32 E
*Proudfoot Shoal	T	9GHz 3GHz	9-16 12-17	4	10° 32'.01 S 141° 28'.00 E
*Saumarez Reef	O	9GHz 3GHz	13-20 17-22	18	21° 39'.59 S 153° 46'.01 E
*Smith Cay	B	9GHz 3GHz	11-18 14-19	12	9°45'.93 S 143° 19'.15 E
*Stagg Patches	O	9GHz 3GHz	11-18 14-19	12	17°01'.35 S 146° 07'.86 E
*Swain Reefs	T	9GHz 3GHz	11-18 15-20	12	22° 19'.95 S 152° 43'.84 E
*Varzin Passage	Y	9GHz 3GHz	10-17 13-18	7	10° 32'.47 S 141° 52'.20 E
*White Tip Reef Rear	K	9GHz 3GHz	17-24 21-26	38	19° 55'.48 S 150° 16'.09 E
Papua New Guinea					
Basilisk Beacon	G	9GHz	10		9° 32'.33 S 147° 08'.02 E
Kumul Platform	Q	9GHz 3GHz			8° 04'.00 S 144° 33'.60 E

* Racons operated by AMSA

1. Radar beacons are indicated on a radar PPI by a radial Morse paint of the beacons identifying character. These beacons are not intended to give a continuous response. In some cases the quiet period may last as long as two minutes and paints may appear for just a few seconds only.

2. The Australian Maritime Safety Authority calculates the nominal ranges of its racons using the following formula:

$$\text{Range} = 2.1(\sqrt{H} + \sqrt{h})$$

Where:

h = height of racon above MHWS/MHHW (metres)
H = height of ship's radar aerial (metres)

Assumed heights for ships' radar antennas are:

3 cm (9 GHz) band – 5 m and 30 m
10 cm (3 GHz) band – 15 m and 40 m

3. The racon range achieved in practice depends on a number of factors, including the height of a ship's radar aerial, the characteristics of a ship's radar (such as aerial gain, transmitter power and receiver sensitivity), and atmospheric features which may affect radio propagation. The ranges listed in the above table are nominal ranges and somewhat greater or lesser ranges will be experienced in practice.

4. The most significant determinant of nominal range is height of the vessel's radar antenna. Other factors may however be important in determining whether the racon signal is detected and displayed on a vessel's radar. Some of these factors may be controlled by the user (for example, the rain clutter adjustment setting), but factors due to radio propagation effects (for example, multi path effects) are outside the control of the user.

5. The settings of the rain clutter and/or sea clutter controls on some radars may cause the racon response to disappear partially or completely. If such effects are suspected, these controls should be switched off for the desired racon observation period.

6. Radio propagation conditions may cause a racon response to be seen at distances significantly greater or less than the geographic range. The most important radio propagation factor is the multi path effect. This is due to reflections from the sea interfering with the direct signal between the radar and the racon, causing cancellation of the received signal. The effect can be pronounced in calm sea conditions. It can cause the loss of racon paints well within the geographic range of the racon to radar antenna path. Multi path effects may cause a racon paint to intermittently disappear and reappear as a vessel gets closer to a racon. The distance over which a racon paint disappears could be only several metres, but it could be up to a few miles.

7. The reception of racon signals can also be influenced by a vessel's superstructure and where a vessel's radar antenna is mounted. It is also possible that on some vessels the strength of a received racon signal will vary according to the orientation of a vessel with respect to a racon's bearing.

Australian Maritime Safety Authority, Canberra.

(AA300412, AA300413)

10C. TORRES STRAIT TIDE GAUGES

1. Transmitting tide gauges and one current meter are located in the Torres Strait region as listed in the table below:

<i>Name and Identification</i>	<i>Position (WGS 84)</i>	<i>Hours of Operation</i>
Booby Island BB	10° 36' 09" S 141° 54' 36" E	H 24
Goods Island GD	10° 33' 53" S 142° 08' 44" E	H 24
Turtle Head TH (Hammond Island)	10° 31' 14" S 142° 12' 47" E	H 24
Nardana (height) NT Nardana (stream) NS	10° 30' 17" S 142° 14' 38" E	H 24
Ince Point IP (Wednesday Island)	10° 30' 51" S 142° 18' 17" E	H 24

2. All stations broadcast on VHF Marine Channel 68 (156-425 MHz). The tide data is broadcast in the sequence listed in the above table and each value is preceded by a station identification, which is broadcast as morse code.

3. The tide height is transmitted as groups of pseudo morse `dots', the number of dots in groups indicating respectively metres and tenths of metres of tide height above chart datum. A zero is indicated by a ' and negative heights indicated by a preceding 1.5 second warbling tone.

4. Tidal stream station character is followed by pseudo morse indication of tidal stream speed in knots and direction (East or West flowing) as:

[Direction] [knots in dots] [space] [knots/10 in dots]

East flowing is treated as a positive value and West flowing as a negative value.

Eg: 2.0 knots west flowing ~ [warble] [space] [dot, dot] [space] [dash]

5. The station identification and tide data broadcast cycle is repeated every 125 seconds.

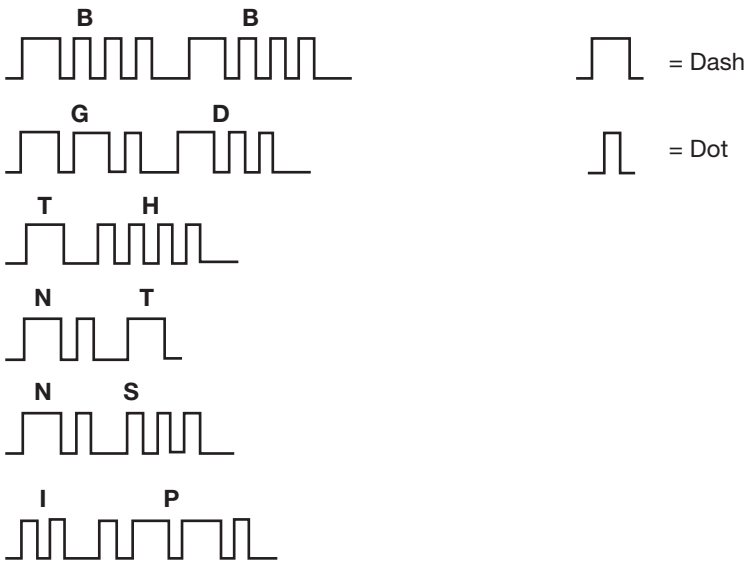
6. All broadcasts are made from a radio transmitter at Hammond Hill (hill 152, which is 0.5 miles southeast of Turtle Head Lighthouse). The nominal range is 24 miles. Where line of sight to Hammond Hill is obscured reception may be lost.

7. The tide data information is also available by a public telephone circuit which can be accessed by dialing 07 4069 2821. The telephone answering service disconnects the caller four (4) minutes after connection.

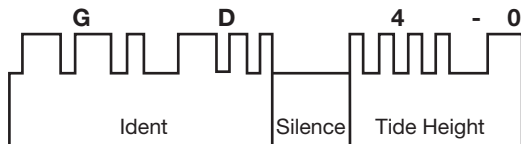
8. Stations are identified on Channel 68 by morse code identifiers transmitting in the following sequence:

Booby Island	BB
Goods Island	GD
Turtle Head	TH
Nardana (tidal height)	NT
Nardana (tidal stream)	NS
Ince Point	IP

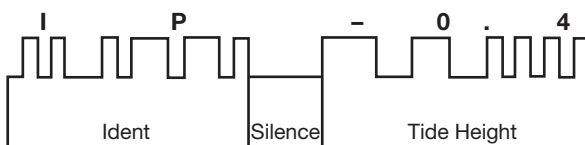
9. Examples of the format of the tide height broadcasts are as follows:



Example 1- Positive Tide Height, Goods Island, 4.0 metres



Example 2 - Negative Tide Height, Ince Point, -0.4 metres



Scale: Dot = 160 msecs Dash = 480 msecs Space = 160 msecs Silence = 3.0 secs
 Letter space = 0.7 secs Decimal point = 1.0 secs Minus sign = 1.6 secs (Warble)

10. The tidal stream information from Nardana has the station identifier (NS) followed by the rate of the stream in knots broadcast dash/dot format. East flowing streams are treated as positive and west as negative. West flowing streams are preceded by a warbling note. Examples as follows:

Nardana east-going 3.2 knots



Nardana west-going 2.5 knots



Nardana west-going 0.3 knots



Easterly flow is approximately in the direction of 080° true. Westerly flow is in the general direction of 260° true.

Australian Maritime Safety Authority, Canberra.

(AA300412, AA300413)

11. HYDROGRAPHIC NOTES

1. Reports conveying information that could be useful to mariners generally, are always welcome in the Hydrographic Office. Such information will be used to improve existing charts sailing directions and other navigational publications not only in the Area of Australian Charting Responsibility, but worldwide. The Area of Australian Charting Responsibility includes the waters around Australia and its territories as well as those around Papua New Guinea, see *Notice to Mariners No 1*.
2. The type of information most needed concerns safe routes through poorly surveyed waters (with courses and depths where available - see *Seafarers Handbook for Australian Waters AHP20*), anchorages, harbour facilities, conspicuous objects, navigational aids, obstructions and other dangers that are not correctly or fully charted or described on the charts or in the Sailing Directions.
3. When reports are received in the Hydrographic Office, copies are sent to other affected maritime authorities including the British Admiralty for correcting British charts and Sailing Directions.
4. Reports are accepted in any style or form that best suits the writer. Rough but legible handwritten reports are quite acceptable and can be sent, if desired, as a Hydrographic Note of which a blank copy, as a printed form, can be found on the AHS website (www.hydro.gov.au). Sketches, maps, diagrams, photographic views (see *Seafarers Handbook for Australian Waters AHP20*), newspaper cuttings etc, when attached to reports can be very useful.
5. Without making the task too arduous reports should include copies of the original observations on which a report is founded, with times courses and speeds bearings radar distances or measured depths rather than merely the derived latitudes and longitudes or reduced depths.
6. Most reports record what someone has seen or done. The report should include the name and address of that person, together with the mariner's comments on its known or assumed reliability, so that enquiries can be made when checking against other sources.
7. Mariners who send charts with their reports should ask for replacements to be sent to them, if required.

8. Reports, which will be acknowledged in *Section II* of the fortnightly editions of *Notices to Mariners*, should be sent to:

Hydrographer of Australia
Locked Bag 8801
Wollongong
NSW 2521

or
email Hydro.NTM@defence.gov.au

or
web site www.hydro.gov.au

Privacy Notice

9. Any personal information supplied will be recorded and used solely to enable us to clarify or verify any matters that are reported to us using a Hydrographic Note. Any personal information supplied will not be given to any other party without prior consent.

Australian Hydrographic Service.

(AH 99/0511)

12. AREAS DANGEROUS DUE TO MINES AND UNEXPLODED ORDNANCE

1. Minefields were laid in Australia and Papua New Guinea during the World War of 1939 to 1945. These minefields have been swept and have been used safely by shipping for many years. For details of areas which exist in other parts of the world see *Admiralty Notice to Mariners No 6*.

2. Due to the lapse of time, navigation through the areas outlined below is now considered no more dangerous from mines than from any other of the usual hazards to navigation. However, there is a remote risk that mines may still remain, having failed to respond to orthodox sweeping methods. Therefore a danger still exists with regard to anchoring, fishing or any form of submarine or seabed activity.

3. Drifting mines may occasionally be sighted. Sightings of mine-like objects should be reported to the nearest Navy authority without delay, ensuring that a clear description is provided.

4. Mines, torpedoes, depth charges, bombs and other explosive missiles are sometimes picked up in trawls often in waters comparatively distant from Australia. Explosive weapons may still be dangerous even if they have been in water for many years and the following guidance is given in dealing with them:

- (a) A suspected explosive weapon should not be landed on deck if it has been observed while the trawl is still outboard. The trawl should be lowered and then towed clear of regular fishing grounds before cutting away the net as necessary.
- (b) In the event of the weapon not being detected until the contents of the trawl have been discharged on deck, the skipper of the fishing vessel must decide whether to rid his ship of the weapon by passing it over the side or to make for the nearest port informing the Navy authority without delay. His decision will depend on their circumstances but he should be guided by the following points:
 - (i) Great care should be taken to avoid bumping the weapon.
 - (ii) If retained onboard it should be stowed on deck, away from heat and vibration firmly chocked and lashed to prevent movement.
 - (iii) It should be kept covered up and dampened down. This is important because any explosive which may have become exposed to the atmosphere is liable to become very sensitive to shock if allowed to dry out.
 - (iv) The weapon should be kept onboard for as short a time as possible.
 - (v) If within two or three hours steaming of the Australian coastline the safest measure will generally be to run towards the nearest port and lie a safe distance off shore to await the arrival of the Explosive Ordnance Disposal Unit.
- (c) Under no circumstances should attempts be made to clean the weapon for identification purposes.
- (d) A ship with an explosive weapon on board, or in her gear, should warn other ships in the vicinity giving her position and, if applicable, intended position of jettisoning.

5. Under no circumstances should an attempt be made to recover a mine and bring it to port and rewards formerly paid to mariners for such recovery have been discontinued.

Australia

6. Napier Broome Bay (*chart Aus 727*). The area within a circle of radius 1 mile centred on 14° 04' S 126° 40' E.

7. Cartier Island (*chart Aus 314*). The area within a circle of radius 5 mile centred on 12° 32'.0 S 123° 32'.5 E..

8. Great Barrier Reef (*charts Aus 270, 281, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 4620, 4621*). All passages from seaward through the Great Barrier Reef between 11° 40' S and 19° 07' S have been swept.

9. Moreton Bay (*charts Aus 236, 814*). The area within a circle of radius 1 mile with centre 27° 14'.58 S 153° 21'.08 E.

10. Pyramid Rock (*chart Aus 487*). The area within a circle of radius 1 mile with centre 39° 49' S 147° 15' E.

Irian Jaya

11. Kamrau Bay (*charts BA 2102, 942B*). The area bounded by the parallels of 3° 38' S and 3° 40' S between the meridian of 133° 38' E and the coast north of Tg Simora.

Papua New Guinea

12. Port Moresby (*charts Aus 621, 505*).

(a) The area enclosed by lines joining the following positions:

- | | | |
|---------------------------------|----------------------------------|---------------------------------|
| (i) 9° 32'.00 S 147° 03'.00 E | (ii) 9° 32'.00 S 147° 07'.50 E | (iii) 9° 31'.03 S 147° 07'.38 E |
| (iv) 9° 30'.32 S 147° 05'.52 E | (v) 9° 29'.50 S 147° 05'.50 E | (vi) 9° 29'.52 S 147° 07'.18 E |
| (vii) 9° 28'.00 S 147° 07'.00 E | (viii) 9° 28'.00 S 147° 03'.00 E | |

(b) The area bounded by the land, the parallel of 9° 36' S and by the meridians of 147° 11' E and 147° 18' E.

13. Kavieng (*charts Aus 666, 543*). The area enclosed by lines joining the following positions:

- | | | |
|--------------------------|-------------------------|-------------------------|
| (a) 2° 25' S 150° 25' E | (b) 2° 25' S 150° 55' E | (c) 2° 45' S 150° 55' E |
| (d) 2° 45' S 150° 25' E. | | |

14. Buka Passage (*charts Aus 683, 399*). The area bounded by the parallel of 5° 20' S and by the meridians of 154° 35' E and 154° 48' E.

15. Bougainville Island (*chart Aus 399*). The sea area north of a line joining the following positions:

- | | |
|---|---|
| (a) Moila Point (6° 53'.50 S 155° 42'.00 E) | (b) East Point (6° 48'.75 S 155° 54'.33 E). |
|---|---|

16. Tonolei Harbour (*chart Aus 399*). A channel 0.5 miles wide with centreline 035° - 1.0 mile from centre of Aiaisina Island (6° 50'.6 S 155° 50'.4 E) in a direction 035° - 5.5 miles.

17. Shorthand Island (*chart Aus 399*). The area enclosed by the shore and lines joining the following positions:

- | | | |
|-------------------------------|--------------------------------|-------------------------------|
| (a) 7° 02'.93 S 155° 51'.20 E | (b) 7° 02'.82 S 155° 52'.32 E | (c) 7° 05'.40 S 155° 53'.57 E |
| (d) 7° 06'.40 S 155° 52'.90 E | (e) 7° 04'.93 S 155° 51'.40 E. | |

18. Malaita Island (*chart BA 3998*). The area within a line joining a position (a) 310° - 2.63 miles from Hauhari'i (Sail) Rock (9° 18'.4 S 161° 20'.0 E), thence in a direction 139° - 3.95 miles, thence in a direction 228° - 0.8 miles, thence in a direction 319° - 3.75 miles, thence to (a).

Areas Dangerous due to Unexploded Ordnance

Locality	Chart	Position of Centre of Area	Radius of Area in Miles	Depth Metres
Western Australia-				
Timor Sea	Aus 318	13° 09' 53".5 S 127° 54' 36".3 E	0.25	78
	Aus 315	12° 18' 40".0 S 128° 22' 45".8 E	0.25	107
	Aus 315	12° 49' 43".8 S 123° 05' 08".4 E	0.25	100
Yampi Sound	Aus 41	16° 06' 57".0 S 123° 36' 51".0 E	0.5	30
Yampi Sound	Aus 40	16° 05' 35".0 S 123° 35' 20".0 E	0.5	10
E of Montebello Islands	Aus 742	20° 23' 02".0 S 115° 39' 57".0 E	0.5	45
NW of Bessieres Island	Aus 744	21° 29' 00".0 S 114° 39' 42".0 E	0.5	60
NW of Rottneest Island	Aus 754	31° 45' 12".0 S 115° 13' 12".0 E	0.25	100
NW of Rottneest Island	Aus 754	31° 47' 30".0 S 115° 14' 18".0 E	0.25	120
N of Rottneest Island	Aus 112	31° 58' 19".5 S 115° 32' 01".0 E	0.25	15
Victoria-				
Port Phillip	Aus 158	38° 13' 58".0 S 144° 49' 39".0 E	0.25	25
Port Phillip	Aus 158	38° 11' 35".0 S 144° 51' 55".0 E	0.5	25
Port Phillip	Aus 143	38° 08' 54".0 S 144° 50' 35".0 E	0.25	25
Bass Strait	Aus 801	39° 05' 44".0 S 146° 45' 05".0 E	0.5	55
Bass Strait	Aus 801	39° 38' 06".0 S 146° 46' 30".0 E	0.5	70
Bass Strait	Aus 357	38° 07' 24".0 S 148° 00' 52".0 E	0.5	50
New South Wales-				
Wreck Bay	Aus 807	35° 15' 30".0 S 150° 38' 00".0 E	0.5	45
Wreck Bay	Aus 807	35° 15' 13".0 S 150° 41' 20".0 E	0.5	75
Wreck Bay	Aus 807	35° 12' 00".0 S 150° 38' 00".0 E	0.5	20
Jervis Bay	Aus 193	35° 06' 41".0 S 150° 48' 07".0 E	0.5	33
Shoalhaven Bight	Aus 808	34° 53' 12".0 S 150° 57' 48".0 E	0.5	90
Shoalhaven Bight	Aus 808	34° 52' 00".0 S 150° 58' 00".0 E	0.5	88

Shoalhaven Bight	Aus 808	34° 50' 00".0 S 150° 59' 00".0 E	0.5	100
Tom Thumb Islands	Aus 194	34° 27' 37".0 S 150° 55' 48".0 E	0.3	7
NE of Bulli	Aus 808	34° 18' 00".0 S 151° 03' 00".0 E	0.5	42
E of Wattamolla	Aus 808	34° 10' 00".0 S 151° 15' 00".0 E	0.5	120
Port Jackson	Aus 201	33° 50' 21".8 S 151° 16' 21".7 E *	0.05	10
Port Jackson	Aus 201	33° 50' 29".3 S 151° 16' 23".2 E *	0.05	10
Port Jackson	Aus 201	33° 50' 52".3 S 151° 16' 19".2 E *	0.05	10
Port Jackson	Aus 201	33° 50' 56".3 S 151° 16' 17".2 E *	0.05	10
E of Broken Bay	Aus 197	33° 34' 45".0 S 151° 27' 33".0 E	0.5	55
E of Bungan Head	Aus 197	33° 40' 21".0 S 151° 22' 58".0 E *	0.27	52
S of Newcastle	Aus 207	32° 59' 10".5 S 151° 48' 47".0 E	0.5	33
Queensland-				
Moreton Island	Aus 236	27° 02' 00".0 S 153° 29' 30".0 E	0.5	30
Moreton Island	Aus 236	27° 01' 48".0 S 153° 25' 00".0 E	0.5	3
Moreton Bay	Aus 236	27° 14' 24".0 S 153° 15' 40".0 E	0.25	13
NW Channel	Aus 235	26° 54' 42".0 S 153° 08' 33".0 E	0.5	10
Shoalwater Bay	Aus 822	22° 14' 18".0 S 150° 25' 24".0 E	1.0	15
Cleveland Bay	Aus 256	19° 10' 18".0 S 146° 55' 00".0 E	1.0	10
Fitzroy Island	Aus 830	16° 55' 21".0 S 145° 54' 12".0 E	0.25	7
N of Cape Grafton	Aus 830	16° 47' 18".0 S 145° 55' 18".0 E	0.25	30
N of Cape Grafton	Aus 830	16° 41' 54".0 S 145° 51' 36".0 E	0.25	33
Northern Territory-				
NW of Darwin	Aus 722	12° 21' 48".0 S 130° 46' 29".0 E	0.5	13
Papua New Guinea-				
Milne Bay	Aus 508	10° 21' 03".0 S 150° 21' 20".0 E	0.25	12
Milne Bay	Aus 508	10° 20' 32".0 S 150° 21' 21".0 E	0.25	12
Milne Bay	Aus 508	10° 20' 14".0 S 150° 21' 40".0 E	0.25	15
Blanche Bay	Aus 680	4° 14' 48".0 S 152° 12' 30".0 E	0.2	Var
Gazelle Harbour	Aus 399	6° 30' 06".0 S 155° 11' 54".0 E	0.6	Var

* Positions referred to WGS84

Australian Hydrographic Service.

(AH 99/0500)

12A. DUMPING GROUNDS

1. Within Australian waters there have been numerous dumpings of ships, hulks, aircraft, chemical warfare agents and explosives. Some principal areas include east and south east of Sydney, east of Cape Moreton and north east of Townsville. A consolidated listing of this data is contained in the Australian Hydrographic Service website www.hydro.gov.au or from the Australian Hydrographic Office.

2. Some of these items can be picked up in trawls, guidance on what action should be taken in this instance is given in *Notice to Mariners No 12*.

Australian Hydrographic Service.

(AH 99/0174)

13. OCEANOGRAPHIC DATA ACQUISITION SYSTEM (ODAS).

1. The Data Buoy Cooperation Panel working under the auspices of the World Meteorological Organization and the Intergovernmental Oceanographic Commission maintains arrays of instrumented drifting and moored buoys in the world oceans. These automated buoys make routine measurements and transmit their data in real time through satellites. Such measurements include wind speed and direction, air temperature, air humidity, atmospheric pressure, currents, sea surface temperature, but also water temperature at various depths to 500 metres. All buoys transmit their positions along with the data.
2. Advice to fishermen and mariners:
 - (a) DO NOT pick up drifting buoys. Buoy operators do not refurbish the drifting buoys once deployed. They would continue to transmit their position along with erroneous meteorological and oceanographic data from the deck of the ship.
 - (b) DO keep watch for the moored buoys at sea; they should be visible on radar and can be avoided.
 - (c) Always keep your fishing operations well clear of the buoys in order to avoid entanglements of your net with the buoy moorings.
 - (d) DO NOT moor to, damage, or destroy any part of the buoys.
 - (e) DO educate your fellow community about the use of data buoys.

International Hydrographic Bureau.

(AH 98/312)

14. SUBMARINE CABLES AND PIPELINES

Caution against Anchoring and Trawling in vicinity.

1. Mariners are warned that every care should be taken to avoid anchoring or trawling in the vicinity of submarine cables or pipelines. Severing of an under-sea pipeline or cable would rate as a national disaster and very severe criminal penalties may apply. In addition the vessel which has fouled such an under water feature will be exposed to extreme explosion or electrocution risks.

Symbols.

2. Cables, cable areas, pipelines and pipeline areas are shown on charts in magenta using the appropriate symbol. Mariners should note the Caution on charts which have these symbols.
3. Submarine cables are shown as wavy lines, submarine cable areas may be shown bounded by pecked lines or by dashed T-shape lines interspersed with a short section of the wavy cable symbol. Disused cable is shown by an interrupted wavy cable symbol.
4. Submarine pipelines are shown as a pecked line using a bulbous type symbol with an annotation such as *gas*, *chem*, *oil*. Disused pipe-lines will be shown with an interrupted pecked line

Danger Involved in Cutting to Clear Anchors or Fishing Gear.

5. In the event of any vessel fouling a submarine cable, every effort should be made to clear the anchor or gear by normal methods; should these efforts fail, the anchor or gear should be slipped and abandoned without attempting to cut the cable. High voltages are fed into submarine cables as well as power transmission cables and serious risk exists of loss of life or severe burns from electric shock if any attempt to cut the cable is made. No claim in respect of injury or damage sustained through such interference with a submarine cable will be entertained.
6. In the event of any vessel fouling a pipeline the anchor or gear should be slipped and abandoned without attempting to get it clear. Any excessive force applied to a pipeline could result in a rupture and, in the case of a gas pipeline, the consequential sudden release of gas at high pressure - somewhat like an explosion - could cause serious damage or loss of the vessel. There would be an accompanying severe and immediate fire hazard.
7. In order to afford greater protection to submarine cables and pipelines, and to avoid expensive repairs and disruption of communications or supplies, the attention of mariners and particularly fishermen, is drawn to *Article VII of the Submarine Telegraphs Convention of 1884*, and to the procedure for making claims for sacrifice of gear. *The 1958 Convention on the High Seas Article 29*, has the effect of extending the provisions of *Article VII of the 1884 Convention* to cover *Damage to Submarine Pipelines and High-voltage Power Cables*.
8. *Article VII* provides that:
 - (a) Owners of ships or vessels who can prove that they have sacrificed an anchor, a net, or other fishing gear in order to avoid injuring a submarine cable or pipeline, shall receive compensation from the owner of the cable or pipeline.
 - (b) In order to establish a claim for such compensation, a statement which is supported by the evidence of the crew, should be drawn up immediately after the occurrence. The master must make a declaration to the proper authorities within twenty-four hours after his return to port or next putting into port.
 - (c) The latter shall communicate the information to the consular authorities of the country to which the owner of the cables belongs.

9. In Australia, compensation for anchors or fishing gear which have been sacrificed outside territorial waters in order to avoid injuring a submarine cable, can be claimed under the *Commonwealth Submarine Cables and Pipeline Protection Act 1963*.

10. Vessels required to carry official log books should enter appropriate details in the log.

Australian Hydrographic Service.

(AH 99/0397)

15. OIL RIGS AND OFFSHORE STRUCTURES

General.

1. Petroleum exploration rigs and petroleum production platforms will be encountered off the Australian coast. At present the main areas of activity are Bass Strait, off the North West Coast of Australia and the Timor Sea. Isolated rigs however, may be encountered in other areas.

2. Safety Zones extending for a radius of up to 500 metres are gazetted around fixed installations and entry into these safety zones is prohibited to all except authorised vessels.

3. A penalty of up to 15 years imprisonment or a fine of up to \$100 000 may be imposed for navigation within the safety zone.

4. Mariners are warned that drilling rigs are moored within a ring of large anchor buoys. This ring may exceed one mile in diameter. The buoys are unlit and may not give good radar echoes.

5. The positions of oil producing platforms are shown on the appropriate charts. Attention is drawn to the Area to be Avoided in Bass Strait (see *para 9*) and the Cautionary Areas charted around off-shore structures in the vicinity of shipping routes.

6. When navigating in the vicinity of production platforms or exploration rigs an adequate safe margin of distance should be allowed. Where there is sufficient sea room vessels should keep at least 2.5 miles clear of these installations. Due allowance should always be given to prevailing weather conditions and the possibility of engine, steering or other mechanical failures.

7. The position of exploration rigs which change their location from time to time are promulgated in *Auscoast Warnings* and in *Section III* of editions of *Australian Notices to Mariners*. Mariners are cautioned that rigs move at short notice. Rig locations other than those listed in the latest *Section III Summary* are the subject of Radio Navigational Warnings. Rigs in transit will not be the subject of Warnings. Mariners should ensure that their chart and navigational warning information is up to date at all times.

8. Masters are reminded that they should ensure their Inmarsat-C Enhanced Group Calling (EGC) receivers are configured to receive MSI messages for the NAVAREA X and coastal warning areas appropriate to their intended voyage. In addition, the types of MSI to be received within the coastal warning areas need to be selected (e.g. navigational warnings). It should be noted that ships may need to receive MSI whilst in port

Area to be Avoided in Bass Strait

9. A significant amount of Australia's petroleum supplies come mainly from the Bass Strait offshore oil fields which lie across the main shipping track. Damage to a structure or pipeline could endanger many lives and seriously disrupt oil production.

10. Traffic separation schemes approved by IMO, serving Bass Strait and the area south of Wilsons Promontory, are promulgated in *Notice to Mariners No 16*. In addition, in Bass Strait, there is an Area to be Avoided, which should be avoided by ships of more than 200 gross tonnage. The area is bound by a line joining the following points:

- (a) The low water line at latitude 38° 15' S
- (b) 38° 35' S 147° 44' E
- (c) 38° 41' S 148° 06' E
- (d) 38° 41' S 148° 13' E
- (e) 38° 32' S 148° 26' E
- (f) 38° 19' S 148° 35' E
- (g) 38° 08' S 148° 31' E
- (h) 38° 05' S 148° 24' E
- (i) the low water line at latitude 37° 58' S
- (j) thence along the low water line to the point of commencement.

11. Exploratory Rigs may be encountered outside the Area to be Avoided, and should not be approached within 2.5 nautical miles.

12. Production platforms and exploration rigs maintain a continuous radio watch on VHF Channel 16 and will attempt to make contact with any ship entering the area to be avoided or heading towards an exploration rig outside the area. All ships required to be fitted with VHF must maintain a continuous listening watch on Channel 16.

13. Under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* it is an offence, punishable on conviction by a heavy fine or imprisonment or both, for any vessel without authorisation to enter the safety zone that extends up to 500 metres from the outer edge of platform, well heads and other offshore structures.

14. Under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* it is an offence, punishable on conviction by a heavy fine or imprisonment or both, for an Australian registered ship with a registered gross tonnage in excess of 200, without authorisation to enter the Area to be Avoided.

15. Masters of ships registered elsewhere than Australia are warned that any infringements of the Area to be Avoided will be reported to the maritime authority in the country of registry.

Australian Maritime Safety Authority, Canberra.

(AA632359)

16. TRAFFIC SEPARATION SCHEMES

1. The arrangements described in this *Notice* are designed for the protection of installations in the Bass Strait area and for the safety of shipping, and have been approved by the International Maritime Organisation (IMO). Ships operating in or near the Traffic Separation Schemes must comply with *Rule 10 of the Regulations for Preventing Collisions at Sea, 1972*.

Bass Strait (see charts *Aus 357 & Aus 487*)

2. Description of the traffic separation scheme is:

(a) A separation zone 1.5 nm wide is centred on a line connecting the following geographical positions:

- | | |
|--------------------------------|-------------------------------|
| (i) 38° 41'.5 S 148° 20'.2 E | (ii) 38° 44'.5 S 148° 14'.9 E |
| (iii) 38° 46'.3 S 148° 09'.0 E | |

(b) A traffic lane for westbound shipping is established between the separation zone and a line connecting the following geographic positions:

- | | |
|--------------------------------|-------------------------------|
| (i) 38° 38'.5 S 148° 17'.5 E | (ii) 38° 41'.0 S 148° 13'.2 E |
| (iii) 38° 42'.8 S 148° 07'.3 E | |

(c) A traffic lane for eastbound shipping is established between the separation zone and a line connecting the following geographic positions:

- | | |
|--------------------------------|-------------------------------|
| (i) 38° 49'.8 S 148° 10'.8 E | (ii) 38° 48'.0 S 148° 16'.7 E |
| (iii) 38° 44'.6 S 148° 23'.0 E | |

3. Navigational aids have been established in the area as follows:

- (a) Kingfish B Platform (38° 36'.00 S 148° 11'.48 E) - *Racon (3 & 9 GHz) Morse B*.
 (b) Flounder A Platform (38° 18'.7 S 148° 26'.4 E) - *Racon (3 & 9 GHz) Morse Q*.

South of Wilsons Promontory (see charts *Aus 802, Aus 357 & Aus 487*)

4. Description of the traffic separation scheme:

(a) A separation zone bounded by a line connecting the following geographical positions:

- | | |
|--------------------------------|-------------------------------|
| (i) 39° 11'.0 S 146° 45'.0 E | (ii) 39° 15'.0 S 146° 33'.0 E |
| (iii) 39° 15'.0 S 146° 15'.0 E | (iv) 39° 12'.0 S 146° 25'.0 E |

(b) A traffic lane for westbound traffic is established between the separation zone and a separation line connecting the following geographic positions:

- | | |
|--------------------------------|-------------------------------|
| (i) 39° 02'.0 S 146° 45'.0 E | (ii) 39° 09'.0 S 146° 26'.0 E |
| (iii) 39° 10'.8 S 146° 19'.2 E | (iv) 39° 10'.8 S 146° 15'.0 E |

(c) A traffic lane for eastbound traffic is established between the separation zone and a line connecting the following geographic positions:

- | | |
|------------------------------|-------------------------------|
| (i) 39° 19'.0 S 146° 15'.0 E | (ii) 39° 19'.0 S 146° 45'.0 E |
|------------------------------|-------------------------------|

5. The main traffic directions are 090° - 270° and 069° - 252°.

Inshore Traffic Zone










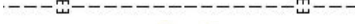


6. The area between Wilsons Promontory and the separation line in *para 4(b)* is designated as an inshore traffic zone (ITZ).

Australian Maritime Safety Authority, Canberra.

(AH 99/0514)

17. SYMBOLOGY USED ON AUSTRALIA NAVIGATIONAL CHARTS

1. The following symbology is used in Australian Navigational charts and generally has not been adopted into the International Hydrographic Organisation INT 1 (symbols and abbreviations) publication:

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	
K 48.1	Marine Farm	
U 3	Visitors Mooring	
N	Ship Reporting System	

Australian Hydrographic Service.

(AA175642)

18. CAUTION WITH REGARD TO SHIPS APPROACHING FORMATIONS, CONVOYS, AIRCRAFT CARRIERS AND OTHER WARSHIPS AND SURVEY VESSELS AT SEA

Formations and Convoys

1. The attention of ship owners and mariners is called to the danger to all concerned which is caused by single vessels approaching a formation of warships or merchant vessels in convoy, so closely as to involve risk of collision, by attempting to pass ahead of or through such a formation or convoy.

2. Mariners are therefore warned that single vessels should adopt early measures to keep out of the way of a formation or convoy.

3. Although a single vessel is advised to keep out of the way of a formation or convoy, this does not entitle vessels sailing in company to proceed without regard to the movements of the single vessel. Vessels sailing in formation or convoy should accordingly keep a careful watch on the movements of any single vessel approaching the formation or convoy and should be ready, in case the single vessel does not keep out of the way, to take such action as will best aid to avoid collision.

Navigation Light Arrangements

4. Some warships, in accordance with *Rule 23 and Annex 1* of the above Regulations, cannot comply fully with the requirements of the rules in this regard.

5. The common principal departures from the rules are as follows:

- The height above the hull of the lower main masthead light is often less than the breadth of the vessel.
- The horizontal distance between masthead lights is frequently less than half the length of the vessel.
- The forward masthead light may be more than one quarter of the length of the vessel from the stern.

6. Mariners are further warned that some warships, particularly large allied aircraft carriers, may have:
- (a) Their masthead lights placed permanently off the centre line of the ship, and at considerably reduced horizontal separation.
 - (b) Alternative positions for their side lights :
 - (i) on either side of the hull;
 - (ii) on either side of the island structure, in which case the port side light may be as much as 30 metres from the port side of the ship.
 - (c) Different anchor light configurations due to their unique size and shape.

Ships Operating Aircraft

7. Attention is called to the uncertainty of movements of warships when aircraft or helicopters are operating to or from their decks. Such ships are required usually to steer a course which is determined by the wind direction. While operating aircraft or helicopters from their decks, warships may show the lights and shapes prescribed by *Rule 27 (b) of the Regulations for Preventing Collisions at Sea, 1972* if their manoeuvrability is affected by the flying operations.

Replenishment-at-Sea

8. Warships and support ships frequently exercise *Replenishment-at-Sea*. While doing so, the two or more ships taking part may be connected to jackstays and hoses. They display the signals prescribed by *Rule 27(b) of the Regulations for Preventing Collisions at Sea, 1972*.

9. Mariners are warned that while carrying out these exercises the ships are severely restricted, both in manoeuvre ability and speed. Other vessels are therefore advised to keep well clear in accordance with *Rule 18(a) of the Regulations for Preventing Collisions at Sea, 1972*.

Survey Vessels

10. Survey vessels while carrying out hydrographic or oceanographic surveys will display the signals prescribed in *Rule 27 (b) of the above Regulations*. The ship may also show an international two-letter group stating - *I am engaged in submarine survey work. You should keep clear of me.*

11. Mariners are warned that while carrying out this work, which may often be run across the normal shipping lanes survey ships may be towing instruments up to 300 metres astern. These will restrict their manoeuvrability and ability to change speed or stop quickly. Other vessels are therefore advised to keep well clear in accordance with *Rule 18 (a) of the Regulations for Preventing Collisions at Sea, 1972* giving a clearance of at least 0.5 miles if passing astern.

Department of Defence (Navy).

(AA174776, AA174777)

19. INFORMATION CONCERNING SUBMARINES

Warning Signals

1. Mariners are warned that considerable hazard to life may result from the disregard of the following signals which denote the presence of submarines:

(a) **Visual signals.** Australian warships fly the International Code Group "NE2" to denote that submarines which may be submerged, are in the vicinity. Vessels are cautioned to steer so as to give a wide berth to any vessel flying this signal. If from any cause it is necessary to approach her, a good look-out must be kept for submarines whose presence may be indicated only by their periscopes or snort masts showing above the water.

(b) **Pyrotechnics and Smoke Candles.** The following signals are used by submerged submarines:

Signal

White smoke candle (with flame).....

Yellow smoke candles

Yellow and green pyro flares.

Red pyro flares.....

(may be accompanied by smoke candles repeated as often as possible).

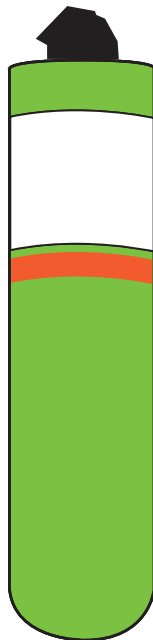
Signification

Indicates position in response to request from ship or aircraft or as required.

Keep clear. I am carrying out emergency surfacing procedure. Do not stop propellers. Clear the immediate area, but stand by to render assistance.

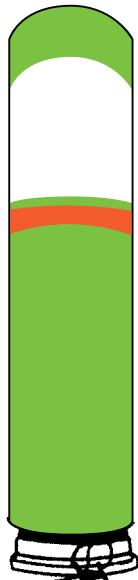
Note: If the red pyro flare signal is sighted and the submarine does not surface within 5 minutes it should be assumed that the submarine is in distress and has sunk. An immediate attempt should be made to fix the position in which the signal was sighted, after which action in accordance with *paras 13-20* should be taken.

Candle Smoke White Mk 4 N



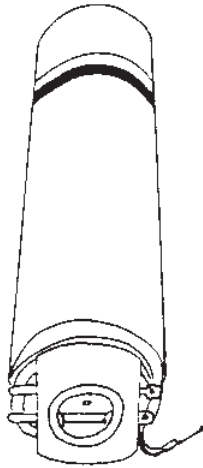
Description	Green, red and white, with red and black markings
Length	42.5cm
Diameter	9.5 cm
Content	Calcium Phosphide
Duration	15 mins – white smoke and flame

Candle Smoke White Mk N6



Description	Green, red and white, with red and black markings
Length	42.5cm
Diameter	9.5 cm
Content	Red phosphorous – Two detonators
Duration	Four mins – white smoke

Float Signal Submerged (Grenade) Mk N3



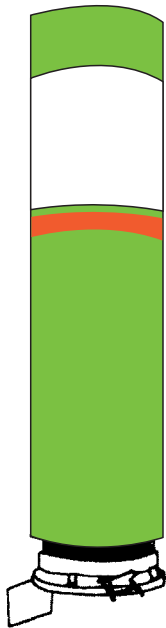
Description	White and black, with black and red markings
Length	43 cm
Diameter	10.2 cm
Content	Two detonators, one ejection charge, one grenade Signal (green/red)
Duration	5 sec – a coloured star is ejected to 91 metres.

Float Signal Submerged Mk N4



Description	White and black, with black and red markings
Length	40 cm
Diameter	10.2 cm
Content	Two detonators, one ejection charge, one fluorescein dye in a green canister.
Duration	No time element: The container is ejected 6 metres splitting the dye canister.

Candle Smoke Yellow Mk N7

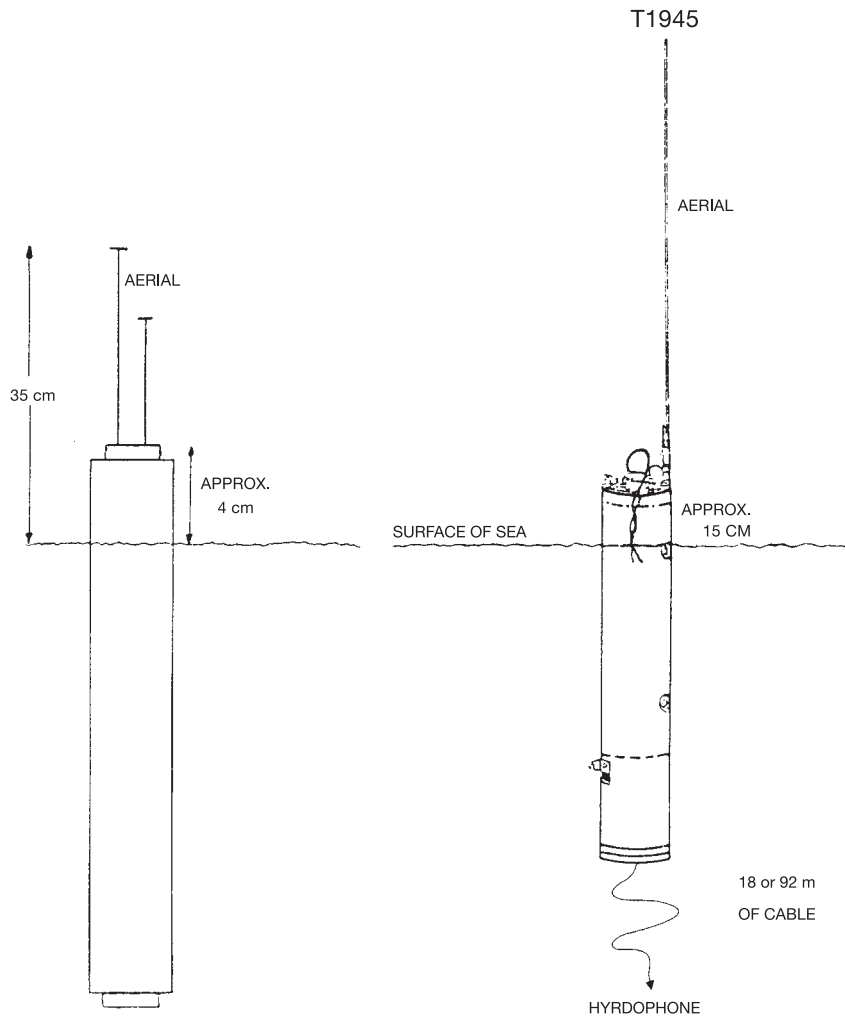


Description	Green, red and white, with red and black markings
Length	42.5cm
Diameter	9.5 cm
Content	Smoke composition — Two detonators
Duration	4 mins — yellow smoke

Marker Location Marine Mk25



Description	Silver body, black gasket 2.5cm white band
Length	46cm
Diameter	7.6 cm
Content	Red phosphorous
Duration	16 mins — smoke and flame
Caution	An explosive charge is fitted, fragmentation to 8 metres



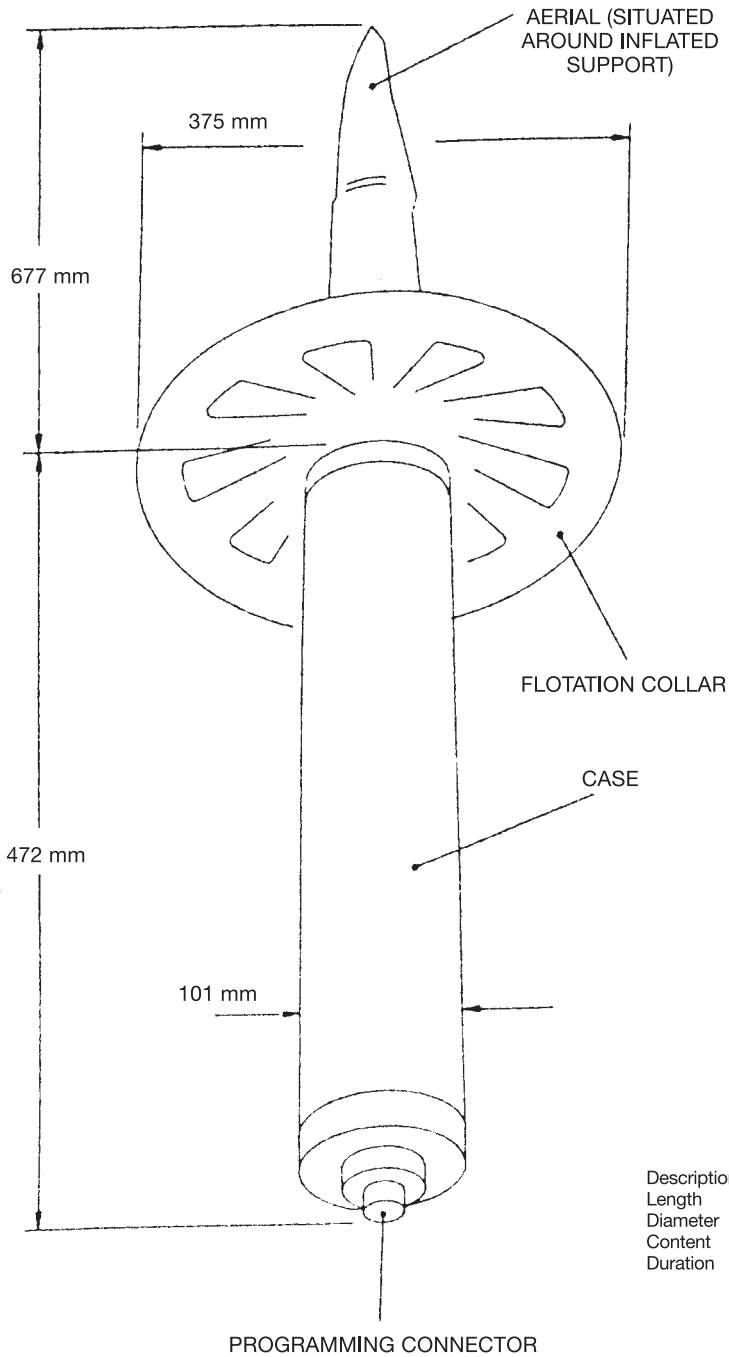
Submarine Launched Emergency Communications Buoy

Description	Orange
Length	86cm
Diameter	10cm

Rough Drawing Sonobuoy

Description	Grey
Length	72-6m
Diameter	5-2m

Expendable Communications Buoy (ECB)



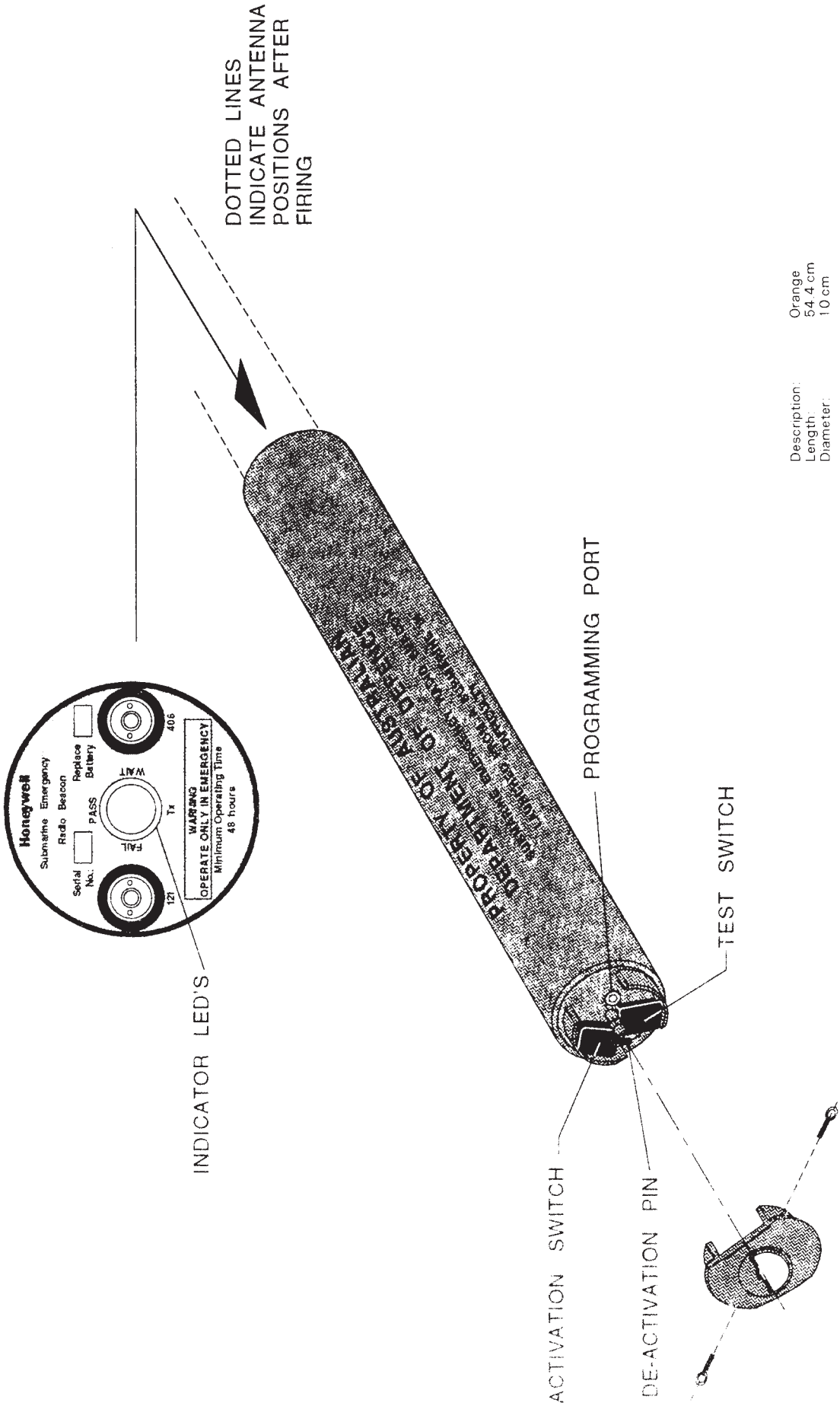
Submarine Launched Flare D4A2



Description
Length
Diameter
Content
Duration

Silver body, white markings
1 m
7.6 cm
Red, Green or White Flares (Magnesium)
30 - 40 secs. A flare is ejected to 170m
Red flare nose cap is buoyant, coloured fluorescent red, contains dye marker and may contain a message.

Description Silver



Description:
 Length 54.4 cm
 Diameter 10 cm

ACTIVATION PLATE
 REMOVE SPLIT PINS ONLY
 PLATE WILL SEPARATE FROM
 SERB ON FIRING

SUBMARINE EMERGENCY RADIO BEACON

2. It must not be inferred from the above that submarines exercise only when in company with escorting vessels.

Australian Submarine Exercise Area

3. The note *Submarine Exercise Area* on certain charts should not be read to mean that submarines do not exercise outside such areas. The whole of the Exclusive Economic Zone (EEZ) is a permanently established Australian submarine exercise area. Under certain circumstances warnings that submarines are exercising in specified areas may be broadcast by a coast radio station or promulgated in printed navigational warnings.

Navigation Lights

4. Submarines have their masthead and side lights placed well forward and very low over the water in proportion to the length and tonnage of these vessels. In particular:

- (a) some submarines can only show a forward masthead light in calm confined waters;
- (b) in other submarines the forward masthead light may be lower than the sidelights;
- (c) the main masthead light may be well forward of the mid-point of the submarine's length.

g

5. Stern lights are placed very low indeed, and may at times be partially obscured by spray and wash. In some cases the stern lights will be well forward of the after part of the submarine, and thus will not give a true indication of the submarine's length. They are invariably lower than the side lights.

6. The after light of nuclear submarines at anchor is mounted on the upper rudder which is some distance astern of the hull's surface waterline. Care must be taken to avoid confusion with two separate vessels of less than 50 metres in length.

7. The overall arrangement of submarine lights is therefore unusual and may well give the impression of markedly smaller and shorter vessels than they are. Their vulnerability to collision when proceeding on the surface and the fact that some submarines are nuclear powered dictates particular caution when approaching them. Nearly all submarines are fitted with an amber quick-flashing light situated above or abaft the main steaming light. This additional light is for use as an aid to identification in narrow waters and areas of dense traffic. Australian submarines will normally burn this identification light under the above conditions and when entering or leaving harbour at night.

8. Australian Collins Class submarines exhibit a very quick flashing yellow identification light (120 flashes per minute) **VQ. Y**. This identification light should not be confused with an air cushion vessel operating in a non-displacement mode which displays the same light.

Sunken Submarine

9. A bottomed submarine which is unable to surface will try to indicate her position by firing candles giving off yellow or white smoke either on the approach of surface vessels or at regular intervals.. As far as possible yellow candles will be used by day.

Note: It should be remembered that it may be impossible for a submarine to fire her smoke candles. Correspondingly a partially flooded submarine may have only a certain number of her smoke candles available and searching ships should not therefore expect many to appear.

10. Since oil slicks or debris may be the only indication of the presence or whereabouts of the sunken submarine, it is vitally important that surface ships refrain from discharging anything which might appear to have come from a submarine while they are in the submarine probability area. Searching ships and aircraft can waste many valuable hours investigating these false contacts.

11. Some submarine pyrotechnics can be fitted with message carriers. If a message has been attached, the pyrotechnic will be fitted with a dye marker, giving off a yellowish-green dye on the surface. Such a pyrotechnic should be recovered as soon as it has finished burning.

12. Collins Class submarines are fitted with the purpose Submarine Launched EPIRB (SERB). A description of the SERB is given at *para 20*.

13. The sighting of any beacon answering the attached description should at once be reported by the quickest available means to the Rescue Co-ordination Centre Australia, the Navy or Police. However, if vessels are unable to establish communications without leaving the vicinity of the submarine, it should be borne in mind that the primary consideration should be for vessels to remain standing by to rescue survivors and not leave the scene of the accident. Every effort should be made to include in the report the serial number of the beacon; this number is affixed on top of the SERB (see *para 20*).

14. At any time after a submarine accident survivors may start attempting to escape. Current policy dictates that survivors will wait before escaping until:

- (a) rescue vessels are known to be standing by; or
- (b) conditions inside the submarine deteriorate to such an extent that an attempt to escape must be made.

15. It should be noted that, in certain circumstances the situation *para 14(b)* may not arise through lack of air supply until a time after the accident of several days. However, if the submarine is badly damaged, survivors may have to make an escape attempt immediately. Any ship finding a SERB should not therefore leave the position but stand by well clear ready to pick up survivors. The latter will ascent nearly vertically, and it is plainly important plenty of sea room is given to enable them to do so in safety. On arrival on the surface men may be exhausted or ill, and if circumstances are favourable therefore the presence of a boat already lowered is very desirable. Some men may require a recompression chamber, and it will therefore be the aim of the Naval authorities to get such a chamber to the scene as soon as possible.

16. In order that those trapped in the submarine shall be made aware that help is at hand, Navy vessels drop small charges into the sea, which can be heard from inside the submarine. There is no objection to the use of small charges for this purpose; but it is vital that they are not dropped too close since men in the process of making ascents are particularly vulnerable to underwater explosions and may easily receive fatal injuries. A distance of a quarter of a mile is considered to be safe. If no small charges are available, the running of an echo sounder or the banging of the outer skin of the ship's hull with a hammer from a position below the water-line is likely to be heard in the submarine, and such banging and/or sounding should therefore be carried out at frequent intervals.

17. Submarines may at any time release pyrotechnic floats, which on reaching the surface burn with flame and/or smoke thus serving to mark the position of the wreck. They are likely to acknowledge sound signals by this means.

18. To sum up, the aims of a submarine rescue operation are:

- (a) To fix the exact position of the submarine.
- (b) To get a ship standing by to pick up survivors if practicable with boats already lowered.
- (c) To get medical assistance to survivors picked up.
- (d) To get a diver's decompression chamber to the scene in case this is required by those seriously ill after being exposed to great pressure.
- (e) To inform the trapped men that help is at hand.
- (f) To notify appropriate authorities.

19. There is a large Navy organisation designed to fulfil these aims which is always kept at instant readiness for action. It is clear, however, that any ship may at anytime find evidence of a submarine disaster, and if she takes prompt and correct action as described above she may be in a position to play a vital part.

Submarine Emergency Radio Beacon (SERB).

20. This beacon is made of aluminium, coloured orange and is cylindrical in shape, with two whip aerials. The beacon is fitted with an automatic transmitting unit, battery life of 48 hours operating on the following frequencies:

- (a) 406.025 MHz Cospas/Sarsat.
- (b) 243 MHz Military Air Guard.
- (c) 121.5 MHz Civil Air Guard.

Submarine Launched Expendable Communications Buoy (ECB).

21. This buoy is used for tactical communications between submarines and warships/aircraft. It can, however, be fired in an emergency default mode in which case it will transmit a SABRE tone on 243 MHz Military Air Guard. Physical description of the ECB are shown in the drawing on *page 88*.

22. The accompanying diagrams on *pages 83-88* show Submarine Emergency Radio Beacon (SERB), Expendable Communications Buoy (ECB), smoke candles fired from submarines, sonobuoy, and aircraft float, smoke and flame markers. A general description of each is as follows:

- (a) *White Smoke Candles*. These are fired from submarines to indicate their position. They burn for up to 15 minutes emitting white smoke and flame and can thus be seen day or night; they can easily be confused with aircraft marine markers and floats smoke and flame.
- (b) *Yellow Smoke Candles*. These are fired from submarines to indicate their position. They burn for about five minutes emitting yellow smoke. They can be seen more easily than the white smoke candles in rough weather but cannot be seen at night.
- (c) *Sonobuoys*. These are dropped from aircraft to detect submarines and may be countered anywhere at sea. Other countries have similar sonobuoys but their colour and dimension are not known.

23. The above may frequently be encountered in areas where HMA Ships and Aircraft exercise, whether or not submarines are present, and should not be confused with submarine emergency buoys and beacons. In case of doubt the object should be approached to confirm, visually, whether or not it is a submarine emergency buoy or beacon before reporting it.

24. The following is a list of candle smoke and markers currently used by the RAN and RAAF:

- (a) Submarine Bubble Decoy Mk N2
- (b) Schermuly Icarus Band Radar flare
- (c) Marker Man Overboard, Smoke and Light Mk N3 and Series 2
- (d) Marker Location Marine Mk 25
- (e) Float Signal Submerged Mk N4
- (f) Float Signal Submerged (Grenade) Mk N3
- (g) Candle Smoke Yellow Mk N7
- (h) Candle Smoke White Mk N6
- (i) Candle Smoke White Mk 4N
- (j) Submarine Launched Flare D4A2

Department of Defence (Navy).

(AH 99/0500)

20. QUARANTINE PRE-ARRIVAL REPORTS FOR VESSELS

1. The Australian Quarantine and Inspection Service (AQIS) requires all vessels arriving in Australia from overseas, or who have been in contact with overseas vessels or sea installations, to submit a *Quarantine Pre-Arrival Report (QPAR)* to AQIS. Copies of this report can be accessed from the AQIS Seaports web site: <http://www.aqis.gov.au/shipping>.

2. The *QPAR* details the condition of the vessel including human health, cargoes and ballast water management. AQIS must be notified immediately if the current status of the vessel (pertaining to questions on this report) changes at any time. Vessel Masters or Medical Officers who knowingly give false or misleading information or negligently give false or misleading information are guilty of an offence. Maximum penalty is imprisonment for one year.

3. Vessel Masters/agents are required to submit the *QPAR* to AQIS no more than 48 hours and no less than 12 hours prior to the vessel's arrival in Australia. This will allow efficient processing of the *QPAR* and avoid any disruption to the vessel arrival.

4. Vessel Masters/agents that do not submit the *QPAR* to AQIS will be met by a quarantine officer on or shortly after arrival to complete quarantine formalities. This will cause delays to the vessel and will incur additional AQIS charges.

5. Vessels will require written permission to discharge any ballast water in Australian ports or waters. This may be given following lodgement of the *QPAR* to AQIS. If the vessels ballast water details change, a revised *QPAR* must be sent to AQIS for clearance prior to discharging any ballast water.

6. Vessel Masters are also required to complete *AQIS Ballast Water Log*. The *AQIS Ballast Water Log* must be used to demonstrate the current state of all ballast water tanks upon arrival in Australia. The log is structured to clearly display the management of all ballast water taken up in a foreign port. The inspecting quarantine officer will use the information recorded on the *AQIS Ballast Water log* to verify the ballast water management statement made on the *QPAR*. Furthermore, the inspecting officer will request deck, engine room and dedicated ballast water logs to verify the vessel's compliance with Australia's ballast water management requirements. There is no requirement for the *AQIS Ballast Water Log* to be submitted with the *QPAR* though it must be available to the inspecting officer at the time of the first port pratique inspection.

7. AQIS advises that it is best practice to manage all high risk ballast water, prior to arrival, to make it suitable for discharge in Australian ports and waters. This is to assist vessels that arrive with no intention to discharge but circumstances change with the altering of cargo plans and then must discharge ballast water.

8. Vessels should also contact their agent to be informed of Australian State Government jurisdictional requirements for the management of domestically sourced ballast water.

Quarantine Pre-Arrival Report for Vessels without Facsimile

9. This report is provided by AQIS as a guide to assist in the transferal of information from the vessel to the agent. **Under no circumstances will AQIS accept vessel information in telex format.** AQIS will only accept the information in the approved format. The approved report (*QPAR*) must reach AQIS no more than 48 hours and no less than 12 hours prior to the vessels arrival in Australia. AQIS must be notified immediately if the current status of the vessel (pertaining to questions on this report) changes at any time. Vessel Masters or Medical Officers who knowingly give false or misleading information or negligently give false or misleading information are guilty of an offence. Maximum penalty is imprisonment for one year.

10. Enquiries concerning the *Quarantine Pre-Arrival Report* can be directed to:

AQIS Seaports Program Manager Ph +61 (0)2 6272 5700, Email seaports@aqis.gov.au

Ballast Water Adviser - Seaports Program Ph +61 (0)2 6272 4363, Email ballastwater@aqis.gov.au

AQIS Area Offices:

Adelaide	+61 (0)8 8201 6053
Brisbane	+61 (0)7 3246 8755
Cairns	+61 (0)7 4030 7800
Darwin	+61 (0)8 8920 7000
Hobart	+61 (0)3 6233 3352
Melbourne	+61 (0)3 8318 6700
Perth	+61 (0)8 9334 1555
Sydney	+61 (0)2 8334 7444

Australian Quarantine Inspection Service.

(AA177151)

21. NAVIGATION IN THE GREAT BARRIER REEF AND TORRES STRAIT

Compulsory Pilotage in the Great Barrier Reef and Torres Strait

1. Under Australian law most vessels are to carry a pilot licensed by the Australian Maritime Safety Authority in Torres Strait and sections of the Great Barrier Reef.

2. Details of pilotage services available for the Great Barrier Reef and Torres Strait are in *Notice to Mariners No 23*.

Compulsory Pilotage Great Barrier Reef

3. The *Great Barrier Reef Marine Park Act 1975* requires all 'regulated' ships, that is vessels of 70 metres or more in overall length, and all loaded oil tankers, chemical tankers and liquefied gas carriers except Defence Force vessels, to carry a pilot, licensed by the Australian Maritime Safety Authority, when taking passage through the Inner Route of the Great Barrier Reef (GBR) between Cape York (latitude 10° 41'S) and the vicinity of Cairns Roads (latitude 16°40'S) or when passing through Hydrographers Passage or the Whitsunday and Lindeman Island Groups.

Applications for Exemptions in the Great Barrier Reef

4. Under *Section 59F* of the *Great Barrier Reef Marine Parks Act 1975*, the master or owner of a regulated ship may apply in writing to the Minister for the Environment and Heritage for an exemption to navigate with a licensed coastal pilot in the GBR compulsory pilotage area. Application enquiries should be made to the Great Barrier Reef Marine Park Authority for attention by the Project Manager Ports and Shipping.

Penalties

5. It is an offence for a 'regulated ship' to navigate without a pilot in the compulsory area, the Master and owner each being liable to a fine of \$55,000 and \$275,000 respectively. It is also an offence, with similar liabilities and penalties for a vessel to enter an Australian port having previously navigated without a pilot in the compulsory area. A prosecution of such offences may be commenced within three (3) years of the commitment of the offence.

Pilotage Torres Strait

6. Under Australian law the following vessels are to embark a pilot, licensed by the Australian Maritime Safety Authority, when transiting the Torres Strait Pilotage Area (see *page 93*):

- All vessels of 70 metres or more in overall length, and all loaded tankers, chemical tankers and liquefied gas carriers, except defence force vessels, when transiting through **Torres Strait Pilotage Area A with a draught of 8 metres or more** are to have a pilot on board.
- All vessels (irrespective of draught) of 70 metres or more in overall length, and all loaded tankers, chemical tankers and liquefied gas carriers, except defence force vessels, when transiting through **Torres Strait Pilotage Area B** are to have a pilot on board.

7. The Torres Strait Pilotage Area is bound on the south by the line of latitude 10° 41' S, and on the north by Australia's EEZ, and divided into the following two parts (see *page 93*):

- Torres Strait Pilotage Area A is bound by the longitudes 141° 50' E and 142° 05' E.
- Torres Strait Pilotage Area B is bound by the longitudes 142° 05' E and 143° 24' E.

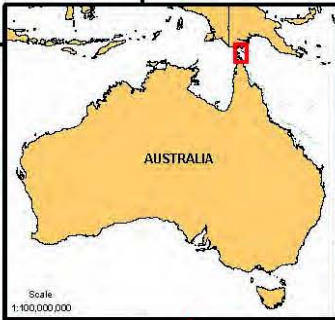
142°0'0"E

142°30'0"E

143°0'0"E

9°0'0"S

9°0'0"S



TORRES STRAIT PILOTAGE AREA

The Torres Strait Pilotage Area is bound on the south by the line of latitude 10°41' S and on the north by Australia's EEZ, and divided into the following two parts:

Torres Strait Pilotage Area A is bound by longitudes 142°50' E and 142°05' E

Torres Strait Pilotage Area B is bound by the longitudes 142°05' E and 143°24' E

All vessels 70 metres or more in overall length, and all loaded tankers, chemical tankers and liquefied gas carriers, except defence force vessels, when transiting through Torres Strait Pilotage Area A with a draught of 8 metres or more are to have a pilot on board.

All vessels (irrespective of draught) of 70 metres or more in overall length, and all loaded tankers, chemical tankers and liquefied gas carriers, except defence force vessels, when transiting through Torres Strait Pilotage Area B are to have a pilot on board.

Darlymple Island pilot boarding ground



9°30'0"S

9°30'0"S

10°0'0"S

10°0'0"S

10°30'0"S

10°30'0"S

11°0'0"S

11°0'0"S

141° 50' E

142° 05' E

10° 41' S

143° 24' E

Booby Island pilot boarding ground

Goods Island pilot boarding ground

Varzin
Gannet
Booby Island

Prince of Wales Channel

Great North East Channel

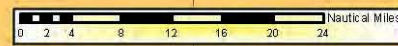
Great North East Channel

Great North East Channel

Cape York

Legend

- Pilotage Limits
- Routing Measures
- EEZ



Pilot Boarding Places (PBP)

8. Vessels requiring a pilot are to arrange for the pilot to board at the following locations:

<i>Constraints</i>	<i>Pilot Boarding Place</i>	<i>Position (WGS84)</i>
East-bound vessels of draught of 8 metres or more	Booby Island	10° 36'.3 S 141° 49'.8 E
East-bound vessels of draught less than 8 metres	Goods Island	10° 33'.9 S 142° 04'.4 E
West-bound vessels	Dalrymple Island	9° 34'.0 S 143° 24.5 E

Masters of east-bound vessels with a draught of less than 8 metres can request the services of a pilot from Booby Island if they wish to do so.

9. Significant penalties will apply to a master and/or owner who fails to comply with the pilotage requirements in the *Navigation Act* and Marine Orders Part 54.

10. Queries on the pilotage requirements for Torres Strait or exemptions from this requirement may be addressed to AMSA, Manager Vessel Traffic & Pilotage Services, phone 02 6279 5092 or email msdpilot@amsa.gov.au. General information on pilotage in the Great Barrier Reef and Torres Strait may be found at www.amsa.gov.au/coastal_pilotage.

Vessel Traffic Service Great Barrier Reef and Torres Strait

11. The Australian Government operates a Vessel Traffic Service called REEFVTS in Torres Strait and the Great Barrier Reef. Full details of REEFVTS are contained in *Notice to Mariners No 22* and the REEFVTS User Manual. The User Manual is available from AMSA and Maritime Safety Queensland offices.

The Great Barrier Reef Marine Park

15. *The Great Barrier Reef Marine Park Zoning Plan 2003*, in force at 1 July 2004 sets out the zoning regime in the park, the purposes for which zones may be used or entered without permission, and the purposes for which zones may be used or entered only with the written permission of the Great Barrier Reef Marine Park Authority. See *Seafarers Handbook for Australian Waters* for GBRMP Activities Table.

Designated Shipping Area (DSA)

16. *The Great Barrier Reef Marine Park Zoning Plan 2003* establishes a Designated Shipping Area (DSA) through the Inner Route, in recognized passages, and in the approaches to all ports in the Great Barrier Reef Marine Park. The DSA accommodates vessels using accepted or normally used routes and shipping should stay within the DSA. Penalties apply to vessels which operate outside the DSA or General Use Zones without the written permission of the Great Barrier Reef Marine Park Authority, other than for the purposes mentioned in *para 18*.

17. The DSA applies to any vessel that is:

- (a) 50 metres or more in overall length; or
- (b) an oil tanker (within the meaning given by the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973), regardless of its length; or
- (c) a chemical carrier or liquefied gas carrier, regardless of its length; or
- (d) a ship to which the INF Code applies, regardless of its length; or
- (e) a vessel that is adapted to carry oil or chemicals in bulk in cargo spaces; or
- (f) a vessel engaged in towing or pushing another vessel or vessels if any of paragraphs (a) to (e) applies to the towed or pushed vessel, or the total length of the tow, from the stern of the towing vessel to the after end of the tow, is greater than 150 metres;

but is not:

- (g) a vessel of the Defence Force; or
- (h) a vessel of the armed service of another country, if the vessel is in Australian waters with the consent of Australia; or
- (i) a super-yacht (that is, a vessel more than 50 metres in overall length used for private recreational activities).

18. All such vessels are required to navigate within the limits of the DSA and the General Use Zones of the Great Barrier Reef Marine Park, except in the case of an emergency for any of the following purposes:

- (a) to investigate and respond to an emergency alert;
- (b) to save human life or avoid the risk of injury to a person;
- (c) to locate or secure the safety of an aircraft, vessel or structure that is, or may be, endangered by stress of weather or by navigational or operational hazards;
- (d) to carry out emergency repairs to a navigational aid;
- (e) to deal with a threat of pollution to the marine environment under a Commonwealth law or a national emergency response arrangement in which the Great Barrier Reef Marine Park Authority participates;
- (f) under Commonwealth law, to remove or salvage a vessel or an aircraft, or a section of a vessel or aircraft, or other wreck, that is wrecked, stranded, sunk or abandoned and poses a threat to the marine environment or safety.

19. Vessels wishing to deviate from the DSA or General Use Zones, cruise ships for example, must seek permission from the Great Barrier Reef Marine Park Authority.

20. All vessel owners, vessel operators, owners and masters are advised to obtain a copy of the *Great Barrier Reef Marine Park Zoning Plan 2003* from the Great Barrier Reef Marine Park Authority at:

PO Box 1379,
TOWNSVILLE
QLD 4810,
or by telephone: 61 7 4750 0700
or via their website www.gbrmpa.gov.au.

Capricorn and Bunker Groups Area to be Avoided

21. The International Maritime Organisation (IMO) has promulgated the area of the Capricorn and Bunker groups of islands and reefs as an Area to be Avoided. This area is also protected by the *Great Barrier Reef Marine Park Zoning Plan 2003*. All ships in excess of 500 tons gross tonnage should avoid the area bounded by a line connecting the following geographic positions:

- | | | |
|--------------------------|--------------------------|--------------------------|
| (a) 23° 10' S 151° 56' E | (b) 23° 53' S 152° 28' E | (c) 23° 55' S 152° 28' E |
| (d) 23° 57' S 152° 26' E | (e) 23° 57' S 152° 24' E | (f) 23° 32' S 152° 55' E |
| (g) 23° 36' S 151° 39' E | (h) 23° 33' S 151° 35' E | (i) 23° 30' S 151° 35' E |
| (j) 23° 25' S 151° 53' E | (k) 23° 20' S 151° 50' E | (l) 23° 20' S 151° 40' E |
| (m) 23° 15' S 151° 40' E | (n) 23° 10' S 151° 52' E | |

Fishing Vessels

22. Concentrations of fishing and trawling vessels will frequently be encountered in the Inner Route and Great North East Channel including trawlers that primarily operate at night. Close quarters situations are often unavoidable due to the confined nature of these waterways. Investigations into previous incidents between commercial vessels and vessels fishing almost invariably show that either one or both vessels were not keeping a proper lookout. Masters are reminded of their responsibilities under Rule 5 of the collision regulations.

Australian Maritime Safety Authority, Canberra.

(AA566117)

22. MANDATORY SHIP REPORTING SYSTEM Covering the Torres Strait region and the Inner Route of the Great Barrier Reef

Mandatory Ship Reporting System – (REEFREP)

1. The Great Barrier Reef and Torres Strait Ship Reporting System (REEFREP) was established as a mandatory ship reporting system under the International Convention for the Safety of Life at Sea (SOLAS Regulation V/11). REEFREP was formally adopted by the IMO's Maritime Safety Committee in Resolution MSC.52(66), and later amended by Resolutions MSC.161(78) and MSC.315(88).

2. REEFREP is an integral component of the Great Barrier Reef and Torres Strait Vessel Traffic Service (REEFVTS). Within the REEFVTS area ships identify themselves and report their intended passage through the region. This information, together with the monitoring and surveillance systems used by REEFVTS, assists with the proactive monitoring of a ship's transit through the Great Barrier Reef and Torres Strait.

3. Mariners are referred to *Marine Orders Part 56* for details of their obligations under REEFREP. This is available on the AMSA website at www.amsa.gov.au.

4. In December 2010, the International Maritime Organization approved a submission by Australia to extend the area covered by the Great Barrier Reef and Torres Strait Ship Reporting System (REEFREP) to the southern boundary of the Great Barrier Reef Marine Park. Marine Order Part 56 (REEFREP) has been amended to give effect to the new REEFREP area from the 1 July 2011.

Purpose

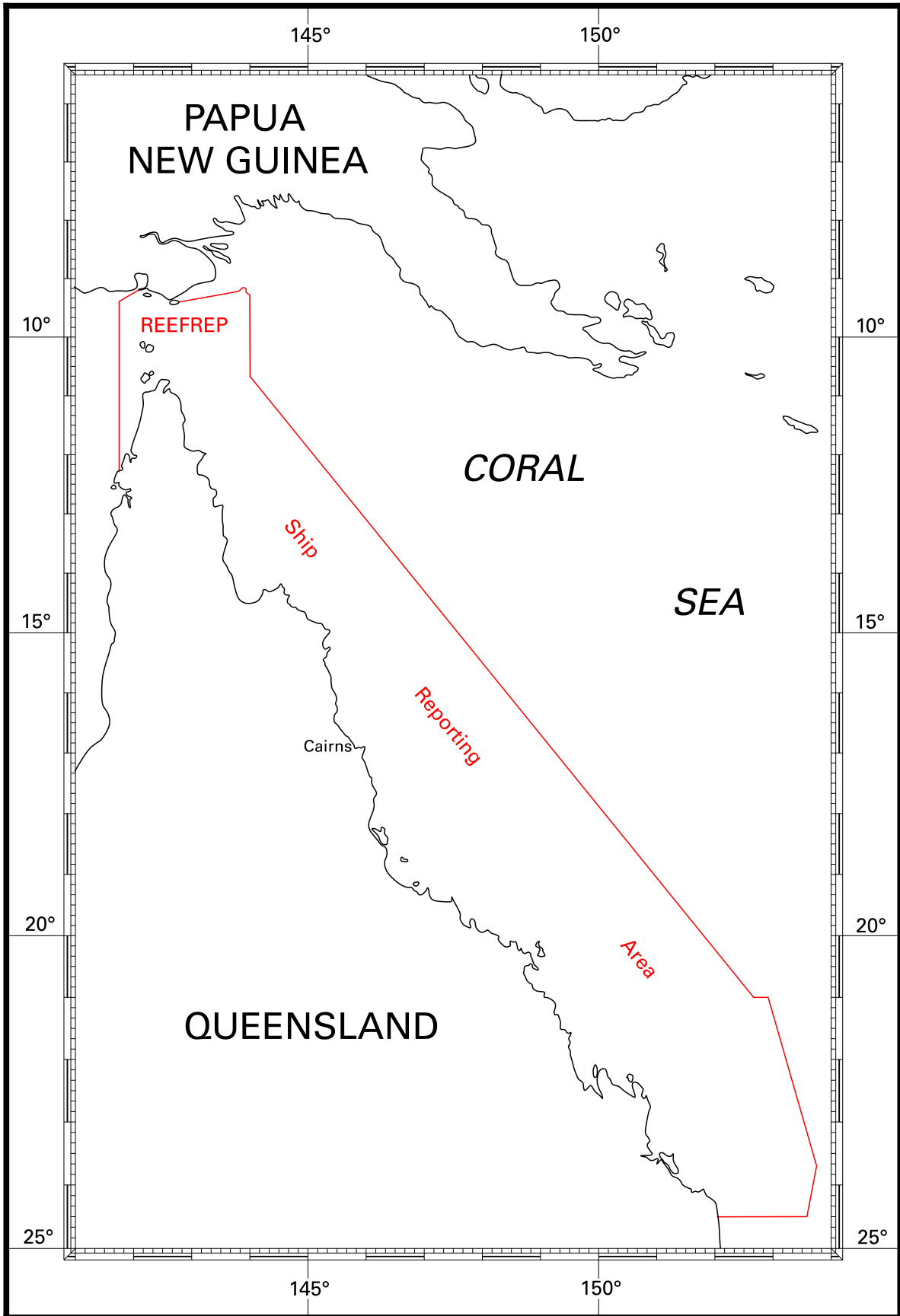
5. The Queensland and Australian Governments established the coastal Vessel Traffic Service REEFVTS in 2004. Its purpose is to:
- (a) enhance navigational safety in the Torres Strait and the Great Barrier Reef region by interacting with shipping to provide improved information on potential traffic conflicts and other navigational safety information;
 - (b) minimise the risk of a maritime accident and consequential ship sourced pollution and damage to the marine environment in the Torres Strait and Great Barrier Reef region, and
 - (c) provide an ability to respond more quickly in the event of any safety or pollution incident.
6. REEFVTS is comprised of four key components:
- (a) a mandatory Ship Reporting System (REEFREP), providing the reporting requirements for ships to identify themselves and their intended passage through the region.
 - (b) monitoring capabilities. REEFVTS utilises three sensor technologies to identify and monitor the transit of individual ships. The sensor inputs are Radar, Automatic Identification System (AIS) and Automated Position Reporting (APR) via Inmarsat-C.
 - (c) decision support tools. Systems are used to monitor the transits of individual ships and assist REEFVTS to determine where interaction may be necessary to assist on-board decision-making. This may include situations where a ship may be in danger of running aground, deviating from a recommended route or does not alter course at a critical waypoint.
 - (d) communication capabilities, primarily through the use of Inmarsat-C and VHF radio.

Categories of ships

7. Ships of the following general categories are required to participate in the reporting system:
- (a) all ships of 50 metres or greater in overall length;
 - (b) all oil tankers;
 - (c) all liquefied gas carriers;
 - (d) all chemical tankers;
 - (e) all ships to which the INF Code applies;
 - (f) ships engaged in towing or pushing where the towing or pushing vessel or the towed or pushed vessel is a vessel prescribed within the categories in *sub-paras 7(a), 7(b), 7(c), 7(d) or 7(e)* or where the length of the tow, measured from the stern of the towing vessel to the after end of the tow, exceeds 150 metres.
8. For the purposes of the requirement at *sub-para 7(b)* "oil tanker" means:
- (a) a ship constructed or adapted primarily to carry oil in bulk as cargo; or
 - (b) a combination carrier when it is carrying oil in bulk as cargo; or
 - (c) a chemical tanker when it is carrying oil in bulk as cargo; or
 - (d) any other ship fitted with cargo spaces which are constructed and used to carry oil in bulk of an aggregate capacity of 200 cubic metres or more.

Geographical Coverage.

9. The REEFVTS area is defined by:
- (a) the Torres Strait between longitude 141° 45' E and 144° 00' E, including the Endeavour Strait and the Great North East Channel; and
 - (b) the waters of the Great Barrier Reef between:
 - (i) the Australian coast; and
 - (ii) the outer edge of the Great Barrier Reef, as bounded by a line:
 - (A) starting from the outer edge of the Reef at latitude 10°40'.00 S longitude 144°00' E; and
 - (B) then running south east to latitude 21° 00' S longitude 152° 40' E; and
 - (C) then running east to latitude 21° 00' S longitude 152° 55' E; and
 - (D) then running south south east to latitude 23°42'.00 S longitude 153°45'.00 E; and
 - (E) then running south south west to latitude 24°30'.00 S longitude 153°35'.00 E; and
 - (F) then running west to the intersection of latitude 24° 30'.00 S with the Australian coast at the low water line.
10. The area serviced by REEFVTS is the same area as defined for REEFREP (see chartlet *page 97*).
11. The Australian Hydrographic Office has produced charts of the area, Aus 4620 (INT 620), Aus 4621 (INT 621), Aus 4635 (INT 635), which provide details of REEFREP including coverage, categories of ships required to report and the reporting point positions with their associated VHF channel allocations. These charts are available through normal outlets.



System Overview

12. REEFVTS is manned and operated 24 hours a day by personnel operating from the REEFVTS Centre, radio call identity “**REEFVTS**”, situated in Townsville.
13. REEFVTS provides both information services and navigational assistance services in the REEFVTS area. In summary, the services delivered include:
- (a) Ship Traffic Information (STI) - Ship encounters are predicted and this information is sent to individual ships as STI, usually through Inmarsat-C messaging.
 - (b) Maritime Safety Information (MSI) - Information that is relevant to the ships location and intended movement is provided.
 - (c) Navigational Assistance - REEFVTS may contact that ship, if there is information available to REEFVTS which may help on-board decision-making such as where the ship is heading into shallow water or deviating from a planned route.
14. REEFVTS may not know about all the hazards in the area. If a ship encounters any hazard that is not already included in Maritime Safety Information (for example, a faulty navigational aid) they should advise REEFVTS so they may pass that information on to other mariners.

Ship Reporting Requirements

15. For further information regarding REEFVTS, reporting procedures including message format, communications arrangements and reporting points are detailed in the publication *REEFVTS User Guide*. Copies are available:
- (a) online at www.amsa.gov.au or www.msq.qld.gov.au,
 - (b) hardcopies from any office of the Australian Maritime Safety Authority (AMSA), or
 - (c) may be requested by email - reefvts@amsa.gov.au.

Reports and Procedures

16. Mariners are reminded that a master of a ship to which Marine Orders 56 applies must make the following reports to REEFVTS:
- (a) Pre-Entry Position Report (PER)
 - (b) Entry Report (ER)
 - (c) Passage Plan Report (RP)
 - (d) Route Deviation Report (DR)
 - (e) Intermediate Position Reports (IP), if applicable
 - (f) Defect Reports (IR)
 - (g) Final Report (FR)

Pre-Entry Position report (PER)

17. A Pre-Entry position report must be made in respect of a ship at least two hours prior to:
- (a) entering the REEFVTS area; or
 - (b) departing from a port within REEFVTS area

18. The purpose of a pre-entry report is to advise REEFVTS of the ship intentions (eg. entry to the REEFVTS area) and take the necessary steps to ensure that the ship's Inmarsat-C terminal is operational when the vessel enters the region. The vessel's Inmarsat-C terminal is to be logged into the Pacific Ocean Region.

Entry Report (ER)

19. An Entry Report must be made in respect of a ship as soon as it:
- (a) enters the REEFVTS area; or
 - (b) departs from a port within REEFVTS area.

20. This report provides a ship's details, intentions and passage through REEFVTS area. Ships are encouraged to provide their passage plan when providing an Entry Report otherwise this is to be provided as a separate passage plan as described in *sub-para 22*.

Passage Plan

21. Route information must be provided by one or more of the following methods:
- (a) standard route plan, or
 - (b) mandatory reporting points, or
 - (c) waypoints.

22. More information on standard routes are described in the *REEFVTS User Guide*.

Route Deviation Report

23. If the ship deviates from the Passage Plan which was sent to REEFVTS, this information should be reported to REEFVTS before the deviation is made. However, in situations where a deviation is made without much warning, a report should be sent to REEFVTS as soon as possible.

24. The deviation is to be reported using one of Passage Plan Reports as described in *sub-para 22*.

Intermediate Position Reports (PR)

25. Where REEFVTS advises that the ship's position is being tracked by sensors then Intermediate Position Reports at the Mandatory Reporting Points are not required.

26. If the ship's position is not being tracked by sensors, then a brief position report must be given as advised by REEFVTS.

Defect Report (DR)

27. Reports must be provided without delay should a ship suffer damage, failure or breakdown which affects the safety of the ship.

28. Reports of pollution or cargo lost overboard must also be reported to REEFVTS without delay using lines Q and R, or special reports as defined by the IMO for incidents involving Dangerous Goods (DG), Harmful Substances (HS) or Marine Pollutants (MP).

Final Report (FR)

29. A Final Report must be made in respect of a ship:

- (a) exiting REEFVTS area; and
- (b) arriving at a port within the REEFVTS area.

Communication with REEFVTS

30. Communication with REEFVTS is in English. The IMO's Standard Marine Communication Phrases are to be used.

31. The means of communication with REEFVTS are:

- (a) Inmarsat-C – messages sent to REEFVTS using the special access code (SAC) 861 via POR LES 212.
- (b) VHF Radio – REEFVTS can be contacted using callsign "REEFVTS" 24 hours a day on either VHF Channel 11 or 14.
- (c) Alternate communications – telephone, fax, email.

32. If a ship's radio equipment fails and the ship cannot send the required reports to REEFVTS, the failure must be recorded in the ship's radio log book or the official log book.

Inmarsat-C

33. REEFVTS will pay the cost of messages sent by Inmarsat-C if the ship uses the special access code (SAC) 861 via POR LES 212. When setting up the Inmarsat-C address book, select either: ASCII or 7-bit or IA5 for data presentation or character code.

VHF Radio

34. A VHF radio network is available along the Queensland coast and Torres Strait for communication with REEFVTS. REEFVTS keeps a listening watch at all times on the VHF working Channels 11 and 14.

35. The VHF channels alternate through the REEFVTS area based on latitude:

Latitude from:	Latitude to:	VHF Channel
9° 00' S	13° 30' S	14
13° 30' S	18° 00' S	11
18° 00' S	20° 00' S	14
20° 00' S	22° 00' S	11
22° 00' S	24° 30' S	14

Other Communications

36. If for any reason a ship cannot communicate via Inmarsat-C or the VHF working channel, the ship must send the required information to REEFVTS in another way. The ship can use one of the following:

- (a) Telephone: 1300 721 293 or +61 7 4726 3428
- (b) Facsimile: +61 7 4721 0633
- (c) Email: reefvts@vtm.qld.gov.au

MASTREP Reporting

37. Ships participating in MASTREP ship reporting system do not have to report to RCC Australia while they are transiting the REEFVTS Area. REEFVTS automatically forwards regular position reports to RCC Australia. Ships participating in MASTREP will also continue to be polled while they are transiting the REEFVTS Area.

38. When a ship departs a port within the REEFVTS Area and intends to report to MASTREP when it exits the REEFVTS Area, the ship should send a Sailing Plan to RCC Australia no more than 2 hours after it has departed from the port.

39. When a ship departs the REEFVTS Area and is reporting to MASTREP, the Master should continue reporting directly to RCC Australia until the ship departs from the MASTREP area. Further information about reporting to MASTREP is provided in the MASTREP User Manual.

Offences

40. Any Master, or Officer of the Watch at the time, who fails to report in accordance with the REEFREP requirements, as specified in *Australian Marine Orders Part 56*, or who deliberately transmits information which is incorrect, false or misleading, will have committed an offence and may be fined if convicted.

Australian Maritime Safety Authority, Canberra. (AA539200, AA539201)

23. GREAT BARRIER REEF AND TORRES STRAIT PILOTAGE SERVICES
Draught Limitation and Service Advice.

1. Pilots undertaking pilotage duties in the Queensland Coast and Torres Strait areas are licensed by the Australian Maritime Safety Authority as required by the *Great Barrier Reef Marine Park Act 1975* for the declared compulsory pilotage areas.

2. Licensed pilots will pilot vessels through Gannet Passage, Varzin Passage, Prince of Wales Channel, and Torres Strait with a maximum draught up to 12.2 metres.

3. The minimum underkeel clearances are:

- (a) Gannet and Varzin Passages - 1.0 metre,
- (b) Prince of Wales Channel - 1.0 metre for vessels with a draught less than 11.90 metres or 10% of draught for draughts of 11.90 metres or more.

4. The draught limitation of 12.2 metres applies only to vessels transiting the Great Barrier Reef Inner Route from Torres Strait (Booby Island) to Cape Flattery or through the Great North East Channel to Dalrymple Island.

5. Vessels entering or leaving the Inner Route by way of Grafton, Palm and Hydrographers Passages are restricted only by any draught limitation at the Australian port of arrival or departure.

Pilotage Services and Arrangements

6. Pilotage services in the Torres Strait (including the Great North East Channel) and the Great Barrier Reef are provided by three commercial companies, these are:

- (a) Australian Reef Pilots Pty Ltd "**Reef Pilots**".
- (b) Torres Pilots Pty Ltd "**Torres Pilots**".
- (c) Hydro Pilots Australia Pty Ltd "**Hydro Pilots Helicopter**" (Hydrographers Passage only).

7. Masters are to ensure that pilot ladders and pilotage boarding arrangements comply strictly with current SOLAS regulations, *Australian Marine Orders Part 23* and the requirements of the International Maritime Pilots Association. A line will be required to lift aboard the pilot's luggage and equipment (usually two items).

8. Boarding by helicopter is used as an alternative to launch services at some pilot boarding places (PBP) and is the only method used for Hydrographers Passage. Boarding by helo, when used, is by land-on only. Masters should consult *Marine Orders Part 57* and the *Australian Code of Safe Practice for Ship Helicopter Transfers* or the *International Chamber of Shipping's Guide to Helicopter/Ship Operations* and confirm that the vessel is suitable for a land-on operation when ordering a Pilot at a boarding place where this method is an option.

Australian Reef Pilots Pty Ltd Contact and Boarding Arrangements

9. Pilotage contacts are:
- | | | |
|-------------------------------|----------|--------------------------------|
| Brisbane Head Office | Telex: | (UK) 51 94076260 ARPB G |
| | Fax | +61 (0)7 3666 4040 |
| | Phone | +61 (0)7 3666 4000 |
| | Mobile | +61 (0)413 878 792 (all hours) |
| | Email | operations@reefpilots.com.au |
| | Internet | www.reefpilots.com.au |
| | Postal | GPO Box 826 Brisbane QLD 4001 |
| Mackay Pilot Station | Telex: | (UK) 51 94076257 ARPM G |
| | Phone | +61 (0)7 4957 4877 |
| | Email | arpmky@reefpilots.com.au |
| Cairns Pilot Station | Telex: | (UK) 51 94076258 ARPC G |
| | Phone | +61 (0)7 4055 8311 |
| | Email | arpcns@reefpilots.com.au |
| Thursday Island Pilot Station | Telex | (UK) 51 94076256 ARPT G |
| | Phone | +61 (0)7 4069 1570 |
| | Email | arptis@reefpilots.com.au |

VHF callsign for all areas: "REEFPILOTS"

Ordering a Pilot

TORRES STRAIT (INCLUDING THE GNE CHANNEL) AND THE INNER ROUTE

10. Inbound. Contact Reef Pilots Brisbane five days before arrival, advising the IMO number, call sign, boarding place, ETA (UTC+10 hours), deepest draught, sea speed and destination. All messages will be acknowledged by Reef Pilots Brisbane, together with advice on ETA update requirements.

11. Outbound. Arrange directly with Reef Pilots Brisbane or through the ship's agent.

12. Boarding at Queensland, New South Wales, Northern Territory or Papua New Guinea ports is possible depending on pilot availability and logistics, or at any of the following pilot boarding places:

Location	Position	VHF Ch	Method
Cairns (Yorkeys Knob)	16° 44'.0 S 145° 45'.0 E	20	Launch or Helo
Torres Strait (Goods Island)	10° 34'.0 S 142° 04'.0 E	20	Launch or Helo
Torres Strait (Booby Island)	10° 36'.3 S 141° 49'.8 E	20	Launch or Helo
GNE Channel (Dalrymple Island)	9° 34'.0 S 143° 24'.5 E	20	Launch

HYDROGRAPHERS PASSAGE

13. Inbound. Pilot boarding place is at Blossom Bank 19° 43'.6 S 150° 25'.9 E. Pilots board by land-on helicopter only. Pilots are ordered by contacting the Brisbane office five days before arrival advising ETA (UTC+10) at the PBP and confirming that the ship is suitable for a land-on helicopter. The Reef Pilot helicopter will call on VHF Ch 16 thirty to forty minutes before the given ETA, changing to Ch 9 to give advice on the boarding procedures.

14. Outbound. Arrange with the Brisbane office direct or through the ship's agent at Hay Point.

Torres Pilots Pty Ltd Contact and Boarding Arrangements

15. Pilotage contacts are:
- | | | |
|--------------------------------|----------|--|
| Brisbane Head Office | Email | operations@torrespilots.com.au |
| | Fax | +61 (0)7 3217 9722 |
| | Phone | +61 (0)7 3217 9544 |
| | Internet | www.torrespilots.com.au |
| | Postal | PO Box 674 Bulimba QLD 4171 |
| Thursday Island Pilot Station | Phone | +61 (0)7 4069 2251 |
| | Fax | +61 (0)7 4069 2252 |
| | Email | torresti@bigpond.com |
| Dalrymple Island Pilot Station | Phone | +61 (0)7 4090 0666 |
| | Fax | +61 (0)7 4069 4188 |
| | Email | torrescoconut@torrespilots.com.au |
| | | or contact through the Thursday Island Pilot Station |
| Mackay Pilot Base | Phone | +61 (0)7 4944 0455 |
| | Fax | +61 (0)7 4944 0755 |
| Email | | torres@avta.com.au |

VHF Call sign for all areas: "TORRES PILOTS"

Ordering a Pilot**TORRES STRAIT (INCLUDING THE GNE CHANNEL) AND THE INNER ROUTE**

16. Inbound. Contact TORRES PILOTS Brisbane office four to five days (if possible) before arrival advising the IMO Number, Call Sign and initial ETA at the pilot boarding place (UTC + 10 hours), maximum draught, sea speed, destination and pilot disembarkation point if different from the destination. All initial pilot orders will be acknowledged by Torres Pilots Brisbane office.

17. Outbound. Arrange by direct contact with the Brisbane office or through the ship's agent.

18. Boarding of pilots is arranged by request to the Torres Pilots Brisbane offices. GBR pilots are licensed for the following pilot boarding places (PBPs):

<i>Location</i>	<i>Position</i>	<i>VHF Ch</i>	<i>Method</i>
Cairns (Cairns Fairway)	16° 45'.0 S 145° 50'.0 E	79	Launch
Grafton Passage (Euston Reef)	16° 39'.0 S 146° 14'.0 E	79	Launch
Torres Strait (Goods Island)	10° 34'.0 S 142° 04'.0 E	79	Launch
Torres Strait (Booby Island)	10° 36'.3 S 141° 49'.8 E	79	Launch
GNE Channel (Dalrymple Island)	9° 34'.0 S 143° 24'.5 E	79	Launch

* Boarding of a pilot at Grafton Passage (Euston Reef) which is non compulsory may be arranged by request to Torres Pilots Brisbane office.

ETA Updates

19. Vessels should update their ETA at the Booby Island, Goods Island or Dalrymple Island PBP to the Thursday Island Pilot Station 72, 48, 24 and 12 hours before arrival.

20. Vessels should update their ETA at the Cairns Fairway PBG to the Brisbane office 72, 48, 24 and 12 hours before arrival.

HYDROGRAPHERS PASSAGE

21. Inbound. Pilot boarding place is at Blossom Bank 19° 43'.6S 150° 25'.9 E. Pilots board by land-on helicopter only. Pilots are ordered by contacting Torres Pilots Brisbane office four to five days before arrival advising and confirming that the ship is suitable for a land-on helicopter. Vessels should update their ETA at the Blossom Bank PBP 72, 48, 24 and 6 hours before arrival to Mackay Pilot base on fax +61 (0) 7 4944 0755 or email torres@avta.com.au.

22. Outbound. Arrange through Torres Pilots Brisbane office or with ship's agent.

Hydro Pilots Australia Pty Ltd Contact and Boarding Arrangements

23. Hydro Pilots specialise in providing pilotage services for Hydrographers Passage.

24. Pilotage contact:
Mackay Office

Telex	AA48105 (answer back HPILOT)
Fax	+61 (0)7 4944 0755
Phone	+61 (0)7 4944 0455
Email	hydropilots@hydropilots.com.au
Postal	PO Box 4018 South Mackay Qld 4740
VHF Callsign	Hydro Pilots Helicopter

Ordering a Pilot

25. Inbound. Vessels requiring pilots should contact agents and ask for Hydro Pilots Australia Pty Ltd and give four to five days notice to the Mackay Office advising ETA (UTC+10) at the Blossom Bank Pilot Boarding Place, 19° 43'.6 S 150° 25'.9 E, maximum draught, destination, and confirming that the ship is suitable for land-on helicopter. Vessels should confirm their ETA 48, 24, 12, and 6 hours before arrival by telex, fax or e-mail.

26. Outbound. Arrange through the Mackay office or through the ship's agent advising ETD, departure point, destination, and confirming suitability for land-on helicopter.

24. DUMPING WASTE AT SEA

1. The *Environment Protection (Sea Dumping) Act 1981* applies to Australian Flag vessels and Australian aircraft anywhere at sea and to all vessels, aircraft or platforms within Australian waters. For the purposes of *the Act*, Australian waters includes waters from the low water line to the limits of the Australian Exclusive Economic Zone (other than waters within the limits of a State or the Northern Territory). *The Act* regulates both loading and deliberate disposal of all matter into the sea from vessels, aircraft or platforms and incineration at sea. It does not apply to wastes arising from the "normal operation" of vessels, aircraft or platforms. Operational discharges from ships come under the control of legislation which implements MARPOL (the International Convention for the Prevention of Pollution from Ships).

2. *The Act*, which came into operation on 6 March 1984 establishes a legal regime by which Australia is able to give effect to the international convention for the Prevention of Marine Pollution by the Dumping of Wastes and Other Matter 1972, generally known as the London Convention (LC), and, since 16 August 2000, the 1996 Protocol to the London Convention.

3. Applications for permission to dump materials at sea should be made on the approved form. Provision is made for the assessment and for the stipulation of precautions and conditions to be observed. Application forms and information regarding application fees can be found at:

<http://www.environment.gov.au/coasts/pollution/dumping/index.html>

4. If wastes are loaded, dumped or incinerated otherwise than in accordance with a permit, significant penalties apply. These refer not only to the owner of the wastes but also to the owners(s) of the vessel and to the person in charge of the vessel.

5. Masters of vessels are advised to satisfy themselves prior to the loading of wastes or other material intended for dumping or incineration, that appropriate permits have been issued by the responsible Minister under *the Act*.

6. Queries on the application of *the Act*, requests for information or applications for dumping permits should be directed to:

Director
South Australia and Permits section
Department of Sustainability, Environment, Water, Population and Communities GPO Box 787,
CANBERRA ACT 2601
Telephone +61 (0)2 6274 2014

Email: seadumping@environment.gov.au

7. Signals can be passed via AusSAR through any Maritime Communications Station.

Department of Sustainability, Environment, Water, Population and Communities.

(AH 643542)

25. REQUIREMENTS FOR REPORTING POLLUTION INCIDENTS.

1. *The International Convention for the Prevention of Pollution from Ships (MARPOL)* entered into force for Australia on 14 January 1988. Protocol I of the Convention contains comprehensive requirements and recommendations for ship reporting of incidents involving harmful substances. The purpose of these new reporting obligations and guidelines is to enable the Australian Maritime Safety Authority to be informed quickly and more accurately about actual or potential accidental spillages or cargo losses as well as illegal discharges so that immediate action may be taken.

2. Reports must be made when an incident involves:

- (a) A discharge or probable discharge of oil, or noxious liquid substances carried in bulk, resulting from damage to the ship or its equipment, or for the purpose of securing the safety of a ship or saving life at sea (Harmful Substances Report);
- (b) A discharge or probable discharge of harmful substances in packaged form, including those in freight containers, portable tanks, road and rail vehicles and ship borne barges (Marine Pollutants Report);
- (c) Damage, failure or breakdown of a ship of 15 metres in length or above which:
 - (i) affects the safety of the ship; including but not limited to collision, grounding, fire, explosion, structural failure, flooding, and cargo shifting; or
 - (ii) results in impairment of the safety of navigation; including but not limited to, failure or breakdown of steering gear, propulsion plant, electrical generating system, and essential shipborne navigational aids; or
- (d) A discharge during the operation of the ship of oil or noxious liquid substances in excess of the quantity or instantaneous rate permitted under the present Convention.

3. These measures seek to ensure early notification of pollution or threat of pollution. The deciding factor in initiating a report is not so much the distance from the coastline (as in the past) as the possibility of harm to the coastline or territorial sea of a country. Consequently, Australian vessels trading overseas should be aware that a POLREP must be made direct to the Government of any country affected or likely to be affected by a pollution incident.

4. For incidents affecting or likely to affect Australian interests reports should continue to be made to the General Manager, Ship Safety in the Australian Maritime Safety Authority through the Rescue Co-ordination Centre (RCC).

Pollution Report

5. POLREP to the General Manager, Ship Safety in the Australian Maritime Safety Authority, Canberra:

HARMFUL SUBSTANCES REPORT (oil and noxious liquid substances)

Sections of the ship report format which are inappropriate should be omitted from the report

A. Ship: name, call sign/ship station identity and flag

B. Date and time of event

C. Position: latitude and longitude or

D. Position: true bearing and distance

E. True Course

F. Speed in knots and tenths of knots

L. Route information: intended track

M. Radio communications: full names of stations

N. Time of next report

P.**

1. Type of oil or noxious liquid substances on board
2. UN number(s)
3. Pollution category (X,Y or Z) for noxious liquid substances
4. Names of manufacturers of substances or consignee or consignor
5. Quantity

Q.

1. Condition of the ship, as relevant
2. Ability to transfer cargo/ballast/fuel

R.

1. Type of oil or the correct technical name of the noxious liquid discharged into the sea
2. UN number(s)
3. Pollution category (X,Y or Z) for noxious liquid substances
4. Names of manufacturers of substances or consignee or consignor
5. An estimate of the quantity of substances
6. Whether lost substances floated or sank
7. Whether loss is continuing
8. Cause of loss
9. Estimate of the movement of the discharge or lost substances giving current conditions if known
10. Estimate of the surface area of the spill

S. Weather conditions

T. Name, address and telephone number of the ship's owner and representative

U. Ship size and type

X.

1. Actions being taken with regard to the discharge and movement of the ship
2. Assistance or salvage efforts which have been requested or which have been provided by others
3. The master of an assisting or salvaging ship should report the particulars of the action undertaken or

planned

** In the case of a probable discharge only

MARINE POLLUTANTS REPORT (harmful substances in packaged form)

A. Ship: name, call sign/ship station identity and flag

B. Date and time of event

C. Position: latitude and longitude or

D. Position: true bearing and distance

M. Radio communications: full names of stations

P**

1. Correct technical name or names of goods
2. UN number(s)
3. IMO hazard class(s)
4. Names of manufacturers of substances or consignee or consignor.
5. Types of packages including identification marks (specify whether portable tank, freight container or other, include official registration marks and numbers assigned to the unit)
6. An estimate of the quantity and likely condition of goods

Q.

1. Condition of the ship
2. Ability to transfer cargo/ballast/fuel

R.

1. Correct technical name or names of goods
2. UN number(s)
3. IMO hazard class(s)
4. Names of manufacturers of goods or consignee or consignor
5. Types of packages including identification marks (specify whether portable tank, freight container or other, include official registration marks and numbers assigned to the unit)
6. An estimate of the quantity and conditions of goods
7. Whether lost goods floated or sank
8. Whether loss is continuing
9. Cause of loss

S. Weather conditions.

T. Name, address and telephone number of the ship's owner and representative.

U. Ship size and type

X.

1. Action being taken with regard to the discharge and movement of the ship
2. Assistance or salvage efforts which have been requested or which have been provided by others
3. The master of an assisting or salvaging ship should report the particulars of the action undertaken or planned

** In the case of a probable discharge only

Australian Maritime Safety Authority, Canberra

(AA632364)

26. DISPOSAL OF GARBAGE AT SEA.

1. *The Protection of the Sea (Prevention of Pollution from Ships) Act 1983* implements the operational requirements of the International Convention for the Prevention of Pollution from Ships (*MARPOL*). *Annex V of MARPOL* regulates the disposal of operational garbage from ships and it applies to Australian Flag vessels anywhere and to all vessels within Australian waters.

2. *Annex V of MARPOL* is in force internationally and came into force for Australia on 14 November 1990.

3. The attention of all mariners is drawn to the regulations for disposal of garbage. Disposal of garbage (includes plastics, synthetic ropes, fishing gear, plastic garbage bags, incinerator ashes, clinkers, cooking oil, floating dunnage, lining and packing materials, paper, rags, glass, metal, bottles, crockery and similar refuse) into the sea from ships is prohibited, except in the following limited circumstances, which only apply while the ship is "en route":

- (a) Food wastes, not contaminated by any other garbage type, which have been passed through a comminuter or grinder may be discharged no less than 3 nautical miles from the nearest land. Such comminuted or ground food waste is to be capable of passing through a screen with openings no greater than 25mm. Food wastes, not contaminated by any other garbage type, that have not been treated by passing through a comminuter or grinder may be discharged no less than 12 nautical miles from the nearest land.
- (b) Animal carcasses may only be discharged into the sea while the ship is 'en route' and providing the discharge is as far as possible from the nearest land, taking into account the Guidelines that have been developed by the International Maritime Organization (IMO - recommended greater than 100 nautical miles from the nearest land). Ship owners and operators engaged in livestock trade should obtain a copy of the Guidelines, and refer in particular to section 2.12 of the Guidelines.
- (c) The discharge of cargo residues is only permitted as far as practicable from the nearest land, but in any case not less than 12 nautical miles from the nearest land for cargo residues that cannot be recovered using commonly available methods for unloading. These cargo residues must not contain any substances classified as harmful to the marine environment. IMO has issued guidance on the classification of cargo residues.
- (d) Cleaning agents may only be discharged into the sea while the ship is 'en route' and if the substance is not harmful to the marine environment. A cleaning agent is not harmful to the marine environment if it is not a "harmful substance" in accordance with the criteria in MARPOL Annex III and does not contain any components which are known to be carcinogenic, mutagenic or reprotoxic.



4. Despite these permitted discharges, it is preferable that all waste is returned to shore based facilities.
5. The attention of all mariners is drawn to the special protection measures under *MARPOL* for the Great Barrier Reef region. The outer edge of the reef is defined as "nearest land" therefore prohibiting the disposal of all garbage within the Great Barrier Reef area and Torres Strait.
6. Every ship of 12 metres or more in length and fixed or floating platforms are required to display placards, written in the working language of the ships crew, that notify the garbage discharge requirements for that vessel.
7. Ships of 100 gross tonnes and above and ships certified to carry 15 persons or more, and fixed or floating platforms are required to have a garbage management plan. Ships of 400 gross tonnes and above, and every ship certified to carry 15 or more persons engaged in voyages to ports and offshore terminals under the jurisdiction of another party to the MARPOL convention, and fixed or floating platforms are required to maintain a Garbage Record Book.
8. Queries on the application of the *Act*, requests for information, reports of inadequate port reception facilities or reports of garbage pollution should be directed to:

Marine Environment Division
 Australian Maritime Safety Authority
 GPO Box 2181
 Canberra City ACT 2616

Telephone +61 (0)2 6279 5040
 Facsimile +61 (0)2 6279 5966

9. Signals can be passed via AusSAR through any Maritime Communication Station.

Australian Maritime Safety Authority, Canberra.

(AA632364)

27. GENERAL NOTICE

1. The 2014 Annual Notices to Mariners will be rationalised with the publication of Edition 3 of the Seafarers Handbook for Australian Waters (AHP 20).

Australian Hydrographic Service

(AA223184)

TEMPORARY AND PRELIMINARY NOTICES
In force on 14 December 2012

NEW SOUTH WALES

847(T)/2010 AUSTRALIA - NEW SOUTH WALES - Hastings River - Port Macquarie - Light discontinued
Former Notice - 50(T)/2010 is cancelled
NSW Maritime (AA483333)

The light (31° 25'.61 S 152° 54'.87 E) has been temporarily discontinued and will be replaced with a new sector light.

Chart temporarily affected - Aus 219 - Aus 219

1318(T)/2010 AUSTRALIA - NEW SOUTH WALES - Broken Bay - Barrenjoey Head - Light range reduced
NSW Maritime (AA506509)

The light (33° 34'.82 S 151° 19'.79 E) has been temporarily altered to *Fl(4)20s 113m 12M*.

Chart temporarily affected - Aus 197 - Aus 204 - Aus 215 - Aus 489 - Aus 809 - Aus 4643 - AX 0809E - AX 67215

410(T)/2011 AUSTRALIA - NEW SOUTH WALES - Port Kembla - Spoil ground
Port Kembla Port Corporation Notice 2/2011 (AA528983)

A spoil ground marked by six lit special buoys exists in the vicinity of position 34° 28'.33 S 150° 54'.57 E.

Chart temporarily affected - Aus 194 - Aus 195

748(T)/2011 AUSTRALIA - NEW SOUTH WALES - Cape Baily to Ben Buckler - Scientific instruments
Former Notice - 49(T)/2010 is cancelled
Date - Until 30 June 2013
Sydney Institute of Marine Science (AA375220, AA420046, AA545275)

Subsea moorings (25 metres below the surface) exist in positions as follows:

33° 53'.76 S 151° 17'.30 E	33° 53'.99 S 151° 17'.30 E
33° 54'.23 S 151° 17'.72 E	33° 54'.51 S 151° 18'.14 E
33° 54'.76 S 151° 18'.56 E	33° 55'.02 S 151° 19'.01 E
33° 55'.28 S 151° 19'.45 E	33° 55'.54 S 151° 19'.89 E
33° 55'.80 S 151° 20'.31 E	33° 56'.06 S 151° 21'.17 E
33° 56'.32 S 151° 22'.61 E	33° 56'.60 S 151° 22'.06 E
33° 56'.85 S 151° 22'.50 E	33° 57'.12 S 151° 22'.95 E
33° 57'.40 S 151° 23'.39 E	33° 57'.91 S 151° 24'.25 E
33° 58'.65 S 151° 23'.84 E	33° 58'.20 S 151° 24'.64 E
33° 58'.49 S 151° 25'.08 E	33° 58'.77 S 151° 25'.57 E
33° 59'.08 S 151° 26'.06 E	33° 59'.33 S 151° 26'.47 E
33° 59'.97 S 151° 27'.33 E	34° 00'.21 S 151° 27'.85 E
34° 00'.48 S 151° 28'.27 E	34° 00'.77 S 151° 28'.74 E
34° 01'.33 S 151° 29'.16 E	34° 01'.31 S 151° 29'.63 E.
34° 01'.59 S 151° 30'.08 E	

Chart temporarily affected - Aus 197 - Aus 808 - Aus 809 - AX 0808S - AX 0809S

750(T)/2011 AUSTRALIA - NEW SOUTH WALES - Manly - Scientific instruments
Former Notice - 1009(T)/2009 is cancelled
Date - Until 30 June 2013
University of Sydney Institute of Marine Science (AA353372, AA353373, AA424523, AA545275)

Subsurface scientific instruments exist in positions:

33° 48'.03 S 151° 18'.03 E
33° 47'.98 S 151° 17'.65 E
33° 47'.99 S 151° 17'.73 E
33° 47'.92 S 151° 17'.61 E
33° 47'.93 S 151° 17'.69 E.

Chart temporarily affected - Aus 197 - Aus 200 - Aus 201 - AX 6201F - AX 63200

864(T)/2011 AUSTRALIA - NEW SOUTH WALES - Port Kembla - Obstruction
Port Kembla Port Corporation Notice 9/2011 (AA551936)

A silt curtain, marked by special light buoys Q.Y, exists in the outer harbour between the following positions:

34° 28'.18 S 150° 54'.15 E
34° 28'.15 S 150° 54'.27 E
34° 28'.47 S 150° 54'.33 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus194 - Aus195

1139(T)/2011 AUSTRALIA - NEW SOUTH WALES - Botany Bay - Harbour works

Date - Until 30 November 2012

Sydney Ports Corporation (AA562429)

Harbour works associated with the construction of Bulk Liquids berth 2 are in progress in an area bounded by the HWL and special light buoys, Fl. Y.5s, in the following positions:

33° 58'.84 S 151° 12'.57 E
33° 58'.83 S 151° 12'.53 E
33° 58'.79 S 151° 12'.53 E
33° 58'.75 S 151° 12'.52 E
33° 58'.70 S 151° 12'.53 E
33° 58'.67 S 151° 12'.53 E
33° 58'.62 S 151° 12'.55 E
33° 58'.58 S 151° 12'.55 E
33° 58'.54 S 151° 12'.59 E
33° 58'.52 S 151° 12'.61 E
33° 58'.50 S 151° 12'.67 E.

The area is restricted and only vessels involved in the works are authorised access.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 198 – Aus 199

795(T)/2012 AUSTRALIA - NEW SOUTH WALES - Port Kembla - Depth information

Former Notice - 692(T)/2012 is cancelled

Port Kembla Port Corporation Notice 1/2012 (AA608487)

Available depths as at 28 June 2012:

Berth	Metres	Remarks
Inner Harbour	15.1	
North West Basin	11.2	
101	11.4	Maximum transit draft 12m
102	15.8	
103	12.0	
104	15.4	
105	15.0	
106	13.7	
107	12.0	
108	-	Future Development
109	11.7	
110	10.7	
111	15.2	
112	12.8	Maximum transit draft 13.6m
113	11.2	West of 7m chainage
113	10.5	East of 7m chainage to eastern end of berthing box
201	10.4	To 250m
201	10.2	To 280m
201	10.1	To 330m
* 202	10.5	To 205m max LOA 180m
* 202	10.2	To 205m max LOA 195m
202	10.0	To 210m
203	10.1	
204	4.2	
205	6.8	
206	11.0	

* Indicates new or revised entry.

Chart temporarily affected – Aus 194

1132(T)/2012 AUSTRALIA - NEW SOUTH WALES - Sydney - Millers Point - Harbour works

Sydney Ports Notice 13/2012 (AA637248)

Works are marked by a north cardinal light buoy, VQ (33° 51'.30 S 151° 12'.13 E), with six special light buoys, Q.Y, spaced equally to a north cardinal light buoy, VQ (33° 51'.30 S 151° 11'.98 E), with seven special light buoys, Q.Y, spaced equally to a light buoy, VQ(9)10s (33° 51'.44 S 151° 11'.99 E).

A silt curtain marked by special buoys will be established around the boundary of the area.

An exclusion zone exists within the area.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 200 – Aus 202 – AX 00202T**1262(T)/2012 AUSTRALIA - NEW SOUTH WALES - Newcastle - Depth information**

Former Notice - 1083(T)/2012 is cancelled

Newcastle Port Corporation (AA6420350)

Available depths as at 6 December 2012:

<i>Berth</i>	<i>Metres</i>
Western Basin 3	11.6
Western Basin 4	11.6
Eastern Basin 1	11.6
Eastern Basin 2 North of Ch 450	11.6
Eastern Basin 2 South of Ch 450	11.6
Channel Berth	8.5
Dyke 1	12.8
Dyke 2	12.8
Dyke 4	16.5
Dyke 5	16.5
Dyke 6	5.0
Mayfield 4 Ch 27 to 266	11.8
BHP Wharf 6 to Ch 1050	7.3
Kooragang 2	11.6
Kooragang 2 North Dolphin Ch 182 to 228	11.6
Kooragang 2 South Dolphin Ch -92 to 00	11.0
Kooragang 3	13.2
Kooragang 4	16.5
Kooragang 5	16.5
* Kooragang 6	16.3
Kooragang 7	16.5
Kooragang 8	16.5
Kooragang 9	16.3
Throsby 1	8.4
Carrington Wharf	To be sounded as and when required
Foreshore Park Berth	5.9
Elgo Wharf	To be sounded as and when required
<i>Channels</i>	
Entrance Approach	17.7
Entrance Channel (18.0m)	18.0
Entrance Channel (17.4m)	17.4
Entrance Channel (16.8m)	16.8
Entrance Channel (16.2m)	16.2
Entrance Channel to Horseshoe	15.2
* Horseshoe	15.1
Steelworks Channel to Swinging Basin	15.2
Swinging Basin	14.8
Hunter River South Arm (Kooragang 6 to buoy 16)	15.0
Hunter River South Arm (buoy 16 to buoy 18)	14.7
Basin Cutting	12.6
Basin Area to Eastern & Western Basin Berths	12.3
Basin Area to 1 Throsby	9.4
Stockton Crossing	3.6

* Indicates revised entry.

Chart temporarily affected – Aus 207 – Aus 208

1263(T)/2012 AUSTRALIA - NEW SOUTH WALES - Clarence River - North Channel - Scientific instrument; harbour works postponed

Former Notice - 1134(T)/2012 is cancelled

Date - Until 31 January 2013

Port of Clarence River (Yamba) Notice 10(T)/2012, 11(T)/2012 (AA641659, AA641660)

A scientific instrument marked by special light buoy, Q. Y, exists in position 29° 25'.38 S 153° 21'.21 E

Chart temporarily affected – Aus 222

QUEENSLAND**930(T)/2007 AUSTRALIA - QUEENSLAND - Hook Reef - Beacon destroyed**

Maritime Safety Queensland Notice 659(T)/2007 (AA289086)

The east cardinal beacon (19° 48'.80 S 149° 15'.11 E) has been destroyed.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 254 – Aus 825

710(T)/2008 AUSTRALIA - QUEENSLAND - Moreton Bay - Spitfire Channel - Light buoys established

Former Notice - 649(T)/2008 is cancelled

Maritime Safety Queensland Notice 389/2008 (AA345287)

Starboard lateral conical light buoys, *Fl.G.2-5s*, without topmark, exist in positions 27° 02'.73 S 153° 15'.84 E and 27° 03'.12 S 153° 16'.99 E.

Chart temporarily affected - Aus 235 - Aus 236

819(T)/2008 AUSTRALIA - QUEENSLAND - Airlie Beach - Light buoys established

Maritime Safety Queensland Notice 452(T)/2008 (AA351934)

A silt curtain exists across the southern entrance to Abel Point Marina, closing the entrance to navigation.

Special light buoys mark the location of the silt curtain in the following positions:

20° 16'.070 S 148° 42'.400 E

20° 16'.070 S 148° 42'.402 E

20° 16'.056 S 148° 42'.401 E

Chart temporarily affected - Aus 252 - Aus 253 - Aus 268

667(T)/2009 AUSTRALIA - QUEENSLAND - Airlie Beach - Abel Point - Wreck

Maritime Safety Queensland Notice 332(T)/2009 (AA408578)

A wreck marked by a special light buoy exists in position 20° 15'.60 S 148° 42'.45 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 252 - Aus 253 - Aus 268

1133(T)/2009 AUSTRALIA - QUEENSLAND - Townsville - Ross Creek - Light beacons withdrawn; light buoys established

Maritime Safety Queensland Notice 624(T)/2009 (AA429766)

Light beacons *Fl.R.3s* (19° 15'.03 S 146° 49'.80 E) and *Fl.G.3s* (19° 15'.01 S 146° 49'.77 E) have been withdrawn; a port lateral light buoy, *Fl.R.3s*, and a starboard lateral light buoy, *Fl.G.3s*, exist in situ.

Chart temporarily affected – Aus 257

318(T)/2010 AUSTRALIA - QUEENSLAND - Heskett Rock - Light beacon destroyed

Maritime Safety Queensland Notice 273(T)/2010 (AA462501)

The south cardinal light beacon (20° 56'.19 S 149° 28'.98 E) has been destroyed.

Chart temporarily affected - Aus 251 - Aus 823 - Aus 824 – AX 0823E

716(T)/2010 AUSTRALIA - QUEENSLAND - Barb Reef - Beacon destroyed
Maritime Safety Queensland Notice 532(T)/2010 (AA476018)

The west cardinal beacon (19° 49'.07 S 149° 07'.45 E) has been destroyed.

Chart temporarily affected - Aus 254 - Aus 825

763(T)/2010 AUSTRALIA - QUEENSLAND - Shute Harbour - Wreck
Maritime Safety Queensland Notice 568(T)/2010 (AA480151)

A wreck marked by a special light buoy, *Fl.Y.5s*, exists in position 20° 17'.76 S 148° 47'.24 E.

Chart temporarily affected - Aus 252 - Aus 253

1188(T)/2010 AUSTRALIA - QUEENSLAND - Io Reef - Light beacon destroyed; light buoy established
Former Notice - 382(T)/2010 is cancelled
Maritime Safety Queensland Notice 932(T)/2010 (AA500605)

The west cardinal light beacon (20° 41'.58 S 149° 07'.70 E) has been destroyed; a west cardinal light buoy, *Q(9)15s*, exists in situ.

Chart temporarily affected - Aus 251 - Aus 252 - Aus 824

1189(T)/2010 AUSTRALIA - QUEENSLAND - Whitsunday Group - Shaw Island - Platypus Rock - Light beacon destroyed; light buoy established
Former Notice - 511(T)/2010 is cancelled
Maritime Safety Queensland Notice 926(T)/2010 (AA500696)

The west cardinal light beacon (20° 31'.23 S 149° 02'.31 E) has been destroyed; a west cardinal light buoy, *VQ(9)10s*, exists in situ.

Chart temporarily affected - Aus 252 - Aus 254 - Aus 824

1191(T)/2010 AUSTRALIA - QUEENSLAND - Surprise Rock - Light beacon destroyed; light buoy established
Former Notice - 329(T)/2009 is cancelled
Maritime Safety Queensland Notice 929(T)/2010 (AA500615)

The isolated danger light beacon (20° 21'.3S 149° 01'.6 E) has been destroyed; an isolated danger light buoy, *Fl(2)6s*, exists in situ.

Chart temporarily affected - Aus 252 - Aus 253 - Aus 824

1193(T)/2010 AUSTRALIA - QUEENSLAND - Whitsunday Island - Reef Point - Light beacon destroyed; light buoy established
Former Notice - 446(T)/2010 is cancelled
Maritime Safety Queensland Notice 927(T)/2010 (AA500700)

The port lateral light beacon (20° 17'.45 S 148° 54'.71 E) has been destroyed; a port lateral light buoy, *Fl.R.2.5s*, exists in situ.

Chart temporarily affected - Aus 252 - Aus 253 - Aus 254

1197(T)/2010 AUSTRALIA - QUEENSLAND - Hinchinbrook Channel - Cardwell - Wreck
Maritime Safety Queensland Notice 945(T)/2010 (AA501575)

A wreck exists in position 18° 14'.72 S 146° 01'.66 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 259 - Aus 828

1263(T)/2010 AUSTRALIA - QUEENSLAND - Yorkeys Knob - Wreck
Former Notice - 1196(T)/2010 is cancelled
Maritime Safety Queensland Notice 980(T)/2010 (AA503397)

A wreck exists in position 16° 46'.88 S 145° 42'.20 E.

Chart temporarily affected - Aus 830

1333(T)/2010 AUSTRALIA - TORRES STRAIT - Yorke Islands - Wreck
Maritime Safety Queensland Notice 1002(T)/2010 (AA505444)

A wreck exists in position 9° 47'.46 S 143° 32'.88 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 376 - Aus 377 - Aus 840 - AX 60377

1386(T)/2010 AUSTRALIA - QUEENSLAND - Bundaberg - Anchoring prohibited

Maritime Safety Queensland Notice 1017(T)/2010 (AA508845)

Temporary anchoring is restricted to an area bounded by the following positions:

24° 45'.47 S 152° 23'.43 E
 24° 45'.53 S 152° 23'.54 E
 24° 45'.48 S 152° 23'.79 E
 24° 45'.38 S 152° 23'.77 E.

Vessels are permitted to anchor in the area for up to 48hrs. Vessels must then move to one of the marinas or upstream of position 24° 46'.41 S 152° 22'.88 E.

Anchoring is not permitted in any section of the river downstream of 24° 46'.41 S 152° 22'.88 E and in the section of the Town Reach between positions 24° 51'.78 S 152° 21'.04 E and 24° 51'.81 S 152° 20'.77 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 242

1394(T)/2010 AUSTRALIA - QUEENSLAND - Whitsundays - The Narrows - Buoy off station

Maritime Safety Queensland Notice 1042(T)/2010 (AA508738)

The port lateral buoy (20° 04'.34 S 148° 54'.17 E) is off station.

Chart temporarily affected - Aus 254

209(T)/2011 AUSTRALIA - QUEENSLAND - Port Alma - Depth information

Former Notice - 1019(T)/2009 is cancelled

Maritime Safety Queensland Notice 182(T)/2011 (AA518652)

Available depths as at 23 February 2011:

<i>Berth</i>	<i>Metres</i>
Balaclava Leads	7.6
Kazatch Leads	7.0
Eupatoria Leads	7.9
Shell Point Leads	7.0
Swing Basin	5.8
Berth No 1	9.2
Berth No 2	9.2
Berth No 3	9.2

* Indicates revised entry.

Chart temporarily affected - Aus 265

223(T)/2011 AUSTRALIA - QUEENSLAND - Dugong Island - Wreck

Maritime Safety Queensland Notice 164(T)/2011 (AA518402)

A wreck exists in position 10° 31'.31 S 143° 13'.97 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 376 - Aus 837 - Aus 839

415(T)/2011 AUSTRALIA - QUEENSLAND - Boyne River - Shoaling*Former Notice - 58(T)/2011 is cancelled*

Maritime Safety Queensland Notice 342(T)/2011 (AA527129)

Shoaling exists within the entrance and approach channel to Boyne River (23° 56'.5 S 151° 21'.3 E).

No8 port beacon (23° 56'.32 S 151° 21'.31 E) has been temporarily altered to a starboard beacon and renamed No7.

A special light buoy, *Fl. Y.2-5s*, exists in position 23° 55'.61 S 151° 22'.08 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 246**418(T)/2011 AUSTRALIA - QUEENSLAND - Gladstone - Anchorage area***Former Notice - 315(T)/2011 is cancelled*

Maritime Safety Queensland Notice 318(T)/2011 (AA526389)

A small craft anchorage exists within an area bounded by the following positions:

23° 45'.0 S 151° 09'.8 E

23° 45'.0 S 151° 10'.0 E

23° 46'.4 S 151° 10'.4 E

23° 46'.4 S 151° 10'.0 E.

Mooring buoys exist within the area.

Permission must be obtained from Gladstone Port Corporation prior to anchoring or mooring within the area.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 245**422(T)/2011 AUSTRALIA - QUEENSLAND - Whitsundays - Spitfire Rock - Light beacon destroyed***Former Notice - 1190(T)/2010 is cancelled*

Maritime Safety Queensland Notice 930(T)/2010, 345(T)/2011 (AA500617, AA527139)

The west cardinal light beacon (20° 28'.59 S 149° 01'.70 E) has been destroyed.

Chart temporarily affected - Aus 252 - Aus 254 - Aus 824**470(T)/2011 AUSTRALIA - QUEENSLAND - Gladstone - North Passage Island to Redcliffe Island - Scientific instruments***Date - Until 30 June 2013*

Maritime Safety Queensland Notice 376(T)/2011 (AA531285)

Subsurface scientific instruments exist in positions:

23° 45'.91 S 151° 10'.93 E

23° 45'.81 S 151° 11'.11 E

23° 45'.33 S 151° 10'.48 E

23° 45'.23 S 151° 10'.66 E

23° 42'.44 S 151° 08'.84 E

23° 42'.34 S 151° 09'.05 E

23° 41'.39 S 151° 08'.20 E

23° 41'.29 S 151° 08'.41 E.

Chart temporarily affected - Aus 245 - Aus 819

648(T)/2011 AUSTRALIA - QUEENSLAND - Moreton Bay - Bramble Bay - Bridge construction*Former Notice - 465(T)/2011 is cancelled**Date - Until 21 July 2011*

Maritime Safety Queensland Notices 171(T)/2008, 164(T)/2009, 166(T)/2009, 756(T)/2010, 393(T)/2011, 568(T)/2011 (AA323151, AA395818, AA396377, AA492668, AA532382, AA540981)

Construction of the Houghton Highway Bridge is in progress in position 27° 17'.01 S 153° 03'.89 E (WGS84 datum).

A falsework bridge exists to the east of the existing bridge. The seaward limit of the falsework bridge will be marked by lights, Q. Y.

Nav aids exist as follows:

<i>Position</i>	<i>Remarks</i>
27° 15'.84 S 153° 04'.62 E	port beacon
27° 15'.95 S 153° 04'.75 E	starboard buoy
27° 15'.97 S 153° 04'.74 E	port buoy
27° 16'.56 S 153° 04'.29 E	lit starboard buoy, <i>Fl.G.2.5s</i>
27° 16'.60 S 153° 04'.26 E	lit port buoy, <i>Fl.R.2.5s</i>
27° 16'.57 S 153° 04'.11 E	lit starboard buoy, <i>Fl.G.2.5s</i>
27° 16'.59 S 153° 04'.09 E	lit port buoy, <i>Fl.R.2.5s</i>

Works to remove temporary lit piles adjacent to the channel in Hays Inlet (27° 15'.82 S 153° 04'.70 E) are in progress. The channel will be closed to traffic until 21 July 2011.

Mariners should navigate with caution in the area.

Chart temporarily affected – Aus 236**653(T)/2011 AUSTRALIA - QUEENSLAND - Gladstone - Barney Point - Harbour works***Former Notice - 521(T)/2011 is cancelled**Date - Until 31 July 2011*

Maritime Safety Queensland Notice 547(T)/2011 (AA539941)

Harbour works are in progress at Barney Point Wharf. An exclusion zone exists in within an area bounded by the following positions:

23° 50'.13 S 151° 16'.00 E
 23° 50'.10 S 151° 16'.21 E
 23° 50'.18 S 151° 16'.45 E
 23° 50'.23 S 151° 16'.29 E.

The barges *PMG 150* and *Swissco 58* have deployed 4 anchors marked by light buoys. They will display appropriate lights and symbols and will monitor VHF Ch 13 and Ch 16.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 244 – Aus 245**757(T)/2011 AUSTRALIA - QUEENSLAND - Laguna Quays - Lights unlit; light beacons damaged***Former Notice - 444(T)/2010 is cancelled*

Maritime Safety Queensland Notice 686(T)/2011 (AA546594)

Light beacons marking the entrance to Laguna Quays (20° 36'.03 S 148° 41'.21 E) may be damaged or unlit.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 252**758(T)/2011 AUSTRALIA - QUEENSLAND - Laguna Quays - Shoaling***Former Notice - 1052(T)/2006 is cancelled*

Maritime Safety Queensland Notice 685/2011 (AA546595)

Shoaling exists within the entrance channel to Laguna Quays (20° 36'.03 S 148° 41'.21 E).

Mariners are advised to seek local knowledge prior to transiting the marina entrance and to navigate with caution in the area.

Chart temporarily affected - Aus 252

759(T)/2011 AUSTRALIA - QUEENSLAND - Pioneer Rocks - Light beacon unlit*Former Notice - 474(T)/2011 is cancelled*

Maritime Safety Queensland Notice 663(T)/2011 (AA545484)

The isolated danger light beacon, *Fl(2)6s 5m* (20° 13'.57 S 148° 45'.46 E), is unlit; an isolated danger light buoy, *Fl(2)6s*, exists in situ.

Chart temporarily affected - Aus 252 - Aus 253 - Aus 824 - Aus 825**826(T)/2011 AUSTRALIA - QUEENSLAND - Mourilyan - Depth information***Former Notice - 766(T)/2011 is cancelled*

Maritime Safety Queensland Notice 702(T)/2011 (AA547518)

Available depths as at 29 July 2011:

	<i>Metres</i>
Departure Channel	9.6
Inner Channel	9.6
Swing Basin	6.7
Sugar Berth	10.1

* Indicates revised entry.

Chart temporarily affected – Aus 258**872(T)/2011 AUSTRALIA - QUEENSLAND - Bait Reef - Light beacon destroyed**

Maritime Safety Queensland Notice 750(T)/2011 (AA549635)

The starboard lateral beacon (19° 48'.52 S 149° 03'.77 E) has been destroyed; a special buoy exists in situ.

Chart temporarily affected - Aus254 - Aus825**926(T)/2011 AUSTRALIA - QUEENSLAND - Cape Bowling Green - Scientific instrument***Former Notice - 114(T)/2008 is cancelled**Date - Until 30 June 2013*

Australian Institute of Marine Science (AA546309)

A subsurface scientific instrument, depth 10m, exists in position 19° 18'.37 S 147° 37'.20 E.

Chart temporarily affected - Aus 826 - Aus 827**1020(T)/2011 AUSTRALIA - QUEENSLAND - Moreton Bay - Wynnum - Wreck; light buoy**

Maritime Safety Queensland Notice 871/2011 (AA556300)

A wreck marked by a special light buoy, *Fl.Y.2-5s*, exists in position 27° 25'.90 S 153° 10'.73 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 236**1032(T)/2011 AUSTRALIA - QUEENSLAND - Cape Edgecumbe to Abbot Point - Scientific instruments***Date - Until 30 March 2013*

Maritime Safety Queensland Notice 948(T)/2011 (AA559162)

Special light buoys, *Fl.Y.5s*, exist in positions:

- 19° 55'.92 S 148° 13'.61 E
- 19° 54'.39 S 148° 08'.93 E
- 19° 51'.29 S 148° 03'.34 E.

Chart temporarily affected - Aus 255 - Aus 825 - Aus 826**1091(T)/2011 AUSTRALIA - QUEENSLAND - Hay Point - Scientific instruments**

Maritime Safety Queensland Notice 1018(T)/2011 (AA562002)

Special light buoys, *Q.Y.*, exist in positions 21° 16'.04 S 149° 18'.09 E and 21° 24'.90 S 149° 20'.17 E.

Chart temporarily affected – Aus 249 – Aus 250 – AX 0249E

1143(T)/2011 AUSTRALIA - QUEENSLAND - Gold Coast Seaway - Dredging operations

Former Notice - 909(T)/2011 is cancelled

Date - Until 28 February 2012

Maritime Safety Queensland Notice 1072(T)/2011 (AA565512)

The dredge *Port Frederick* is conducting dredging operations at the entrance to the Gold Coast Seaway (27° 56'.0 S 153° 26'.0 E).

The dredge will be operating between the entrance and Surfers Paradise beach (28° 00'.0 S 153° 26'.0 E) during the operations.

The dredge will monitor VHF Ch 16 and Ch 67.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 230 - Aus 814**1154(T)/2011 AUSTRALIA - QUEENSLAND - Cairns - Trinity Inlet - Smiths Creek - Wreck**

Maritime Safety Queensland Notice 1021(T)/2011 (AA562436)

A wreck marked by a special light buoy, *Fl.Y.2-5s*, exists in position 16° 57'.51 S 145° 46'.26 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 264**1199(T)/2011 AUSTRALIA - QUEENSLAND - Brisbane River - Shafston Reach to Bulimba Reach - Harbour works**

Date - Until 23 December 2011

Maritime Safety Queensland Notice 1082(T)/2011 (AA565897)

Refurbishment works are in progress and will be progressively conducted in the following positions:

27° 28'.48 S 153° 02'.39 E

27° 27'.69 S 153° 03'.07 E

27° 28'.41 S 153° 03'.26 E.

The location of the piling barge will be promulgated on VHF Ch 13 by Brisbane Harbour.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 238**1204(T)/2011 AUSTRALIA - QUEENSLAND - Gladstone - Rich Rocks - Light buoy**

Maritime Safety Queensland Notice 1078(T)/2011 (AA565735)

A special light buoy, *Fl.Y.4s*, exists in position 23° 49'.92 S 151° 16'.55 E.

Chart temporarily affected - Aus 244 - Aus 245**1210(T)/2011 AUSTRALIA - QUEENSLAND - Airlie Beach - Abel Point - Obstructions**

Maritime Safety Queensland Notice 1123(T)/2011 (AA567586)

Underwater obstructions, marked by special buoys, exist in the following positions:

20° 15'.87 S 148° 42'.60 E

20° 15'.88 S 148° 42'.60 E

20° 15'.87 S 148° 42'.56 E.

Chart temporarily affected - Aus 268

1269(T)/2011 AUSTRALIA - QUEENSLAND - Bundaberg - Depth information

Former Notice - 1083(T)/2011 is cancelled

Maritime Safety Queensland Notice 1174(T)/2011 (AA569377)

Available depths as at 21 November 2011:

	<i>Metres</i>
Sea Reach	7.9
Middle Reach	7.9
Inner Reach	7.9
* Swing Basin	6.6
Oil Berth	8.3
* BST Berth	10.6
Deep draught departure channel	7.9m

* Indicates revised entry.

Chart temporarily affected - Aus 242 - Aus 243**1285(T)/2011 AUSTRALIA - QUEENSLAND - Cooktown - Light beacon destroyed**

Maritime Safety Queensland Notice 1206(T)/2011 (AA570050)

No3 light beacon (15° 27'.32 S 145° 15'.20 E) has been destroyed; a special light buoy, *Fl. Y.3s*, exists in situ.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 270**56(T)/2012 AUSTRALIA - QUEENSLAND - Abbot Bay - Clark Shoal - Light beacon unlit**

Date - Until 30 June 2013

Maritime Safety Queensland Notice 24(T)/2012 (AA575902)

The east cardinal light beacon, *Q(3)10s* (19° 51'.11 S 148° 03'.89 E), is unlit; a special light buoy, *Fl. Y.3s*, exists in situ.**Chart temporarily affected – Aus 255 – Aus 826****59(T)/2012 AUSTRALIA - QUEENSLAND - Thursday Island - Depth information**

Maritime Safety Queensland Notice 1(T)/2012 (AA574953)

Available depths as at 2 January 2012:

	<i>Metres</i>
Hovell Bar	3.2
Main Wharf	3.1 (4.1m alongside wharf)
Caltex Wharf	4.1
Engineers Wharf	3.5
Boat Channel	4.6
Inner Harbour	4.8

* Indicates revised entry.

Chart temporarily affected – Aus 293 – Aus 299**240(T)/2012 AUSTRALIA - QUEENSLAND - Point Lookout - Scientific instruments northeastwards**

Date - Until 30 September 2013

CSIRO (AA586284)

Subsurface scientific instruments, 20m below the surface, exist in positions 27° 19'.8 S 153° 46'.8 E and 27° 18'.6 S 153° 52'.2 E.

Chart temporarily affected - Aus 814

245(T)/2012 AUSTRALIA - QUEENSLAND - Gladstone - Pipelines

Former Notice - 155(T)/2012 is cancelled

Date - Until 31 December 2012

Maritime Safety Queensland Notices 1115(T)/2011, 1132(T)/2011, 57(T)/2012, 173/2012 (AA567581, AA567881, AA578641, AA586341)

Submarine pipelines, marked by unlit orange buoys and lit special buoys, exist between;

23° 46'.87 S 151° 10'.14 E

23° 46'.69 S 151° 10'.70 E

23° 46'.68 S 151° 11'.06 E

23° 46'.94 S 151° 11'.59 E

23° 47'.06 S 151° 11'.96 E

and

23° 47'.06 S 151° 11'.96 E

23° 46'.77 S 151° 11'.65 E

and

23° 46'.56 S 151° 10'.03 E

23° 46'.65 S 151° 10'.71 E

23° 46'.64 S 151° 10'.88 E

23° 46'.56 S 151° 11'.12 E

23° 46'.38 S 151° 11'.38 E

and

23° 46'.65 S 151° 10'.71 E

23° 46'.31 S 151° 10'.98 E

23° 46'.07 S 151° 11'.07 E

and

23° 46'.18 S 151° 09'.95 E

23° 45'.49 S 151° 10'.34 E

23° 45'.40 S 151° 10'.55 E

and

23° 48'.52 S 151° 12'.98 E

23° 49'.14 S 151° 12'.61 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 244 - Aus 245**249(T)/2012 AUSTRALIA - QUEENSLAND - Abbot Point - Scientific instruments**

Date - Until 1 February 2013

Maritime Safety Queensland Notice 103(T)/2012 (AA587706)

Subsurface scientific instruments exist in the following positions:

19° 50'.75 S 148° 03'.77 E

19° 51'.70 S 148° 02'.61 E

19° 52'.76 S 148° 05'.27 E.

Chart temporarily affected - Aus 255**251(T)/2012 AUSTRALIA - QUEENSLAND - Cleveland Bay to Rows Bay - Scientific instruments**

Date - Until 31 March 2013

Maritime Safety Queensland Notice 194(T)/2012 (AA586719)

Special light buoys, *Fl.Y.4s*, exist in positions 19° 12'.82 S 146° 47'.53 E and 19° 14'.44 S 146° 49'.42 E.

Chart temporarily affected - Aus 256 - Aus 257 - Aus 827**298(T)/2012 AUSTRALIA - QUEENSLAND - Moreton Bay - Cabbage Tree Head - Dredging operations**

Date - Until 2 November 2012

Maritime Safety Queensland Notice 211(T)/2012 (AA587829)

The dredge *Sterling*, MT *Kiandra*, support vessel *Seaweed* and various barges are conducting dredging operations in the vicinity of position 27° 19'.85 S 153° 05'.35 E.

All vessels will display appropriate lights and shapes and will monitor VHF Ch 12 and 16.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 236

302(T)/2012 AUSTRALIA - QUEENSLAND - Bluff Rock to Wreck Point - Scientific instruments
 Maritime Safety Queensland Notice 223(T)/2012 (AA588180)

Subsurface scientific instruments exist in positions 23° 10'.36 S 150° 48'.15 E and 23° 08'.58 S 150° 45'.87 E.

Chart temporarily affected - Aus 247 - Aus 819 - Aus 820 - AX 00820S

306(T)/2012 AUSTRALIA - TORRES STRAIT - Adolphus Channel to Gannet Passage - AIS trial

Former Notice - 58(T)/2012 is cancelled

Australian Maritime Safety Authority (AA567095, AA572149, AA572150, AA573831)

AIS units have been attached to nav aids as follows:

<i>MMSI</i>	<i>Position (WGS84 datum)</i>	<i>Type</i>	<i>Remarks</i>
995031033	10° 28'.43 S 142° 22'.61 E	Real	Alert Patches north cardinal light buoy
995031038	10° 29'.77 S 142° 27'.08 E	Synthetic	East Strait Island rear light
995031022	10° 30'.16 S 142° 21'.51 E	Real	Herald Patches starboard lateral light buoy
995031023	10° 33'.91 S 142° 09'.13 E	Real	Goods Island rear light
995031039	10° 35'.49 S 141° 52'.41 E	Synthetic	Gannet Passage south cardinal light buoy.

Chart temporarily affected - Aus 292 - Aus 293 - Aus 296 - Aus 299 - Aus 376 - Aus 700

348(T)/2012 AUSTRALIA - QUEENSLAND - Gladstone - Depth information

Former Notice - 1203(T)/2011 is cancelled

Maritime Safety Queensland Notice 307(T)/2012 (AA592206)

Available depths as at 3 April 2012:

	<i>Metres</i>	<i>Remarks</i>
<i>Sea Channels:</i>		
Wild Cattle Cutting	16.1	
* Boyne Island Cutting	16.1	
Boyne Island Extension Channel	9.0	
Golding Cutting	16.1	
* South Bypass Channel	7.3	
Gatcombe Channel	16.3	
* Gatcombe Bypass Channel	12.5	
<i>Inner Channels:</i>		
Auckland Channel	15.8	
Auckland Bypass Channel	6.8	
Clinton Channel	16.0	
Clinton Bypass Channel	10.6	
Clinton Swing Basin	10.6	
Targinie Channel	10.6	
Targinie Swing Basin East	10.6	
Targinie Swing Basin West	9.0	
<i>Berths:</i>		
Boyne Smelter Wharf	15.0	
* South Trees East Wharf	12.8	
* South Trees West Wharf	12.8	
Barney Point Wharf	13.5	(east approach)
Barney Point Wharf	11.5	(west approach)
Barney Point Wharf	15.0	
Auckland Point No 1 Wharf	11.3	
Auckland Point No 2 Wharf	11.3	
* Auckland Point No 3 Wharf	11.3	
* Auckland Point No 4 Wharf	11.4	
* Clinton No 1 Wharf	18.8	
* Clinton No 2 Wharf	18.8	
* Clinton No 3 Wharf	18.8	
* Clinton No 4 Wharf	18.8	
* Fishermans Landing Wharf No 1	12.9	
* Fishermans Landing Wharf No 2	12.9	
* Fishermans Landing Wharf No 4	11.2	
* Fishermans Landing Wharf No 5	11.2	
* Indicates new or revised entry.		

Chart temporarily affected - Aus 244 - Aus 245 - Aus 246

401(T)/2012 AUSTRALIA - QUEENSLAND - Gladstone - Fishermans Landing - Harbour works

Date - Until 1 May 2012

Maritime Safety Queensland Notice 366(T)/2012 (AA594414)

Piling operations are in progress between berth No2 (23° 47'.42 S 151° 10'.80 E) and No4 (23° 47'.25 S 151° 10'.57 E).

The piling barge *Leonora* is onsite and has deployed anchors in the following positions:

23° 47'.28 S 151° 10'.74 E
 23° 47'.40 S 151° 10'.62 E
 23° 47'.28 S 151° 10'.68 E
 23° 47'.34 S 151° 10'.62 E
 23° 47'.34 S 151° 10'.74 E
 23° 47'.40 S 151° 10'.68 E.

The barge will display the appropriate lights and shapes and will monitor VHF Ch 13 and Ch 15.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 244 - Aus 245**404(T)/2012 AUSTRALIA - QUEENSLAND - Fitzalan Passage - Light buoy off station**

Maritime Safety Queensland Notice 353(T)/2012 (AA594029)

The special light buoy, *Fl.Y.2-5s* (20° 18'.78 S 148° 56'.05 E), is off station.

Chart temporarily affected - Aus 252 - Aus 253**414(T)/2012 AUSTRALIA - QUEENSLAND - Karumba - Light beacon withdrawn**

Former Notice - 123(T)/2012 is cancelled

Maritime Safety Queensland Notices 362(T)/2012 (AA594401)

No 3 light beacon (17° 25'.86 S 140° 43'.66 E) has been withdrawn; a starboard lateral light buoy, *Fl.G.4s*, exists in situ.

Chart temporarily affected - Aus 6**459(T)/2012 AUSTRALIA - QUEENSLAND - Schooner Rock - Light beacon destroyed; buoy established**

Former Notice - 1187(T)/2010 is cancelled

Maritime Safety Queensland Notice 399(T)/2012 (AA596079)

The north cardinal light beacon (20° 54'.04 S 149° 25'.91 E) has been destroyed; a unlit north cardinal buoy exists in situ.

Chart temporarily affected – Aus 251 – Aus 824**460(T)/2012 AUSTRALIA - QUEENSLAND - Hook Island - Cockatoo Point - Light beacon destroyed**

Maritime Safety Queensland Notice 393(T)/2012 (AA596297)

The light beacon, *Fl.R.2-5s* (20° 04'.71 S 148° 54'.05 E) has been destroyed.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 252 – Aus 254**600(T)/2012 AUSTRALIA - QUEENSLAND - Moreton Bay - Scarborough - Shoaling**

Maritime Safety Queensland Notice 609(T)/2012 (AA604629)

Shoaling with a least depth of *1.7m* exists on the northern toeline adjacent to beacon No8 (27° 11'.62 S 153° 06'.18 E). A least depth of *2m* exists between the entrance beacons (27° 10'.96 S 153° 06'.15 E) and the western boat ramp.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 236

602(T)/2012 AUSTRALIA - QUEENSLAND - Curtis Channel - Wreck
Maritime Safety Queensland Notice 579(T)/2012 (AA603887)

A wreck exists in position 24° 08'.89 S 152° 12'.12 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 818

606(T)/2012 AUSTRALIA - QUEENSLAND - Cape Bowling Green - Light buoys

Former Notice - 406(T)/2012 is cancelled

Date - Until 15 November 2012

Australian Institute of Marine Science (AA603983, AA603998, AA603999), Maritime Safety Queensland Notice 606(T)/2012 (AA604440)

The isolated danger light buoy, *F(2)5s* (19° 18'.10 S 147° 37'.03 E), is off station.

A special pillar light buoy, *Fl.5s*, exists in position 19° 18'.26 S 147° 37'.19 E.

Chart temporarily affected – Aus 826 – Aus 827

645(T)/2012 AUSTRALIA - QUEENSLAND - Moreton Bay - Rainbow Channel - Light beacon withdrawn

Maritime Safety Queensland Notice 655(T)/2012 (AA607798)

The starboard light beacon, *Fl.G.4s* (27° 26'.99 S 153° 24'.67 E), has been temporarily withdrawn.

Chart temporarily affected - Aus 236

650(T)/2012 AUSTRALIA - QUEENSLAND - Hay Point - Depth information

Former Notices - 819(T)/2011, 1027(T)/2011, 504(T)/2012 are cancelled

Maritime Safety Queensland Notices 633(T)/2012, 634(T)/2012, 635(T)/2012 (AA606614 - AA606616)

Available depths as at 20 June 2012:

	<i>Metres</i>	<i>Remarks</i>
* Entrance Channel	14.8	Between No 4 beacon and the northern end.
	15.0	Seaward of beacon No 4.
HPS Berth No 1	16.5	
HPS Berth No 2	16.7	
* DBCT Berth No 1	17.7	
* DBCT Berth No 2	18.1	
DBCT Berth No 3	18.1	
* DBCT Berth No 4	17.9	
* Tug Harbour entrance channel	5.1	Lesser depths exist close to the outer edges of the channel and around tug berths and piers.

* Indicates revised entry.

Lesser depth exist in an area south of Hay Point No 1 berth out to approximately 100m eastnortheast from the seaward edge of berth No 3 and leading southward to the southwest corner of the channel.

Chart temporarily affected - Aus 249 - Aus 250 - AX 00249S

694(T)/2012 AUSTRALIA - QUEENSLAND - Gold Coast Seaway - Shoaling

Former Notice - 1142(T)/2011 is cancelled

Maritime Safety Queensland Notice 705(T)/2012 (AA611629)

Available depths as at 4 July 2012:

	<i>Metres</i>
Centre line leads (255°)	3.6
Southern approach leads (291°)	3.8

A shoal area, with a least depth of 3.6m, is drifting northwards immediately east of the southern break wall towards the centreline leads. Deeper water, 5.5m, is found by leaving the centre line leads open to the north.

Mariners are advised to navigate with caution when using the southern approach leads as breaking waves may be experienced when seas rise above 1.4m.

Chart temporarily affected - Aus 230

697(T)/2012 AUSTRALIA - QUEENSLAND - Brisbane River - Aquarium Passage - Harbour works

Date - Until 10 August 2012

Maritime Safety Queensland Notice 700(T)/2012 (AA611079)

Harbour works associated with the removal of mooring piles are in progress in the vicinity of position 27° 26'.42 S 153° 07'.52 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 238**702(T)/2012 AUSTRALIA - QUEENSLAND - Magnetic Island - Picnic Bay to Florence Bay - Scientific instruments**

Date - Until 10 July 2013

Maritime Safety Queensland Notice 693(T)/2012 (AA610813)

Subsurface scientific instruments exist in the following positions:

19° 11'.15 S 146° 50'.30 E

19° 09'.26 S 146° 52'.16 E

19° 07'.28 S 146° 52'.95 E.

Chart temporarily affected - Aus 256 - Aus 827**705(T)/2012 AUSTRALIA - QUEENSLAND - Cairns - Trinity Inlet - Wreck**

Former Notice - 1284(T)/2011 is cancelled

Maritime Safety Queensland Notice 682(T)/2012 (AA610832)

A wreck marked by a special light buoy, *Fl. Y.3s*, exists in position 16° 56'.84 S 145° 47'.07 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 263 - Aus 264**737(T)/2012 AUSTRALIA - QUEENSLAND - Gold Coast Seaway - Shoaling**

Former Notice - 695(T)/2012 is cancelled

Maritime Safety Queensland Notice 706(T)/2012 (AA611628)

Shoaling, with a least depth of 2.3m, exists in the North Channel between 27° 55'.86 S 153° 25'.30 E and 27° 55'.66 S 153° 25'.09 E.

Shoaling, with a least depth of 3.5m, exists in the South Channel between 27° 56'.20 S 153° 25'.49 E and 27° 56'.39 S 153° 25'.26 E.

Deeper water to 3.9m is found to the west of the channels centre line.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 230**740(T)/2012 AUSTRALIA - QUEENSLAND - Moreton Bay - Coochiemudlo Island - Light beacon**

Maritime Safety Queensland Notice 768(T)/2012 (AA613763)

The special light beacon, *Fl. Y.2.5s* (27° 34'.78 S 153° 20'.37 E), has been temporarily replaced by a special light buoy, *Fl. Y.2.5s*, in situ.

Chart temporarily affected – Aus 236**743(T)/2012 AUSTRALIA - QUEENSLAND - Ethel Rocks - Wreck eastwards**

Maritime Safety Queensland Notice 725(T)/2012 (AA612990)

A wreck exists in position 23° 58'.15 S 151° 39'.96 E.

Chart temporarily affected – Aus 246 – Aus 819**749(T)/2012 AUSTRALIA - QUEENSLAND - Taylor Point - Obstruction**

Maritime Safety Queensland Notice 734(T)/2012 (AA612981)

An obstruction exists in position 16° 46'.45 S 145 42'.41 E.

Chart temporarily affected – Aus 830 – AX 6027S

751(T)/2012 AUSTRALIA - QUEENSLAND - Cooktown - Depth information*Former Notice - 412(T)/2012 is cancelled*

Maritime Safety Queensland Notice 766(T)/2012 (AA613752)

Available depths as at 23 July 2012:

	<i>Metres</i>
Entrance Channel	1.5
* Inner Channel	2.3
* Public Wharf	2.0
Swing Basin	1.4

* Indicates revised entry.

Chart temporarily affected – Aus 270**756(T)/2012 AUSTRALIA - QUEENSLAND - Karumba - Depth information***Former Notice - 654(T)/2012 is cancelled*

Maritime Safety Queensland Notice 732(T)/2012 (AA612884)

Available depths as at 16 July 2012:

<i>Berth</i>	<i>Metres</i>
* Entrance Channel	3.6
Mobil/Trinity Wharf	6.3
Raptis Wharf	5.3
Ruby Marine Wharf	5.3
Gulf Freight Services Wharf	6.2
Karumba Cold Stores Wharf	6.2
Seaswift/Shell Wharf	6.2
Karumba Livestock Loading Wharf	5.4
Gulf Freight Services Ramp/Wharf	4.6
Pasminco Export Wharf	4.2

* Indicates revised entry.

Chart temporarily affected – Aus 6**801(T)/2012 AUSTRALIA - QUEENSLAND - Great Sandy Strait - Light beacon destroyed**

Maritime Safety Queensland Notice 829(T)/2012 (AA616820)

The light beacon, *Fl.R.3s* (25° 31'.74 S 152° 56'.67 E), has been destroyed.**Chart temporarily affected – Aus 240 – Aus 241****857(T)/2012 AUSTRALIA - QUEENSLAND - Mackay - Light beacon destroyed; light buoy established***Former Notice - 559(T)/2012 is cancelled*

Maritime Safety Queensland Notice 873(T)/2012 (AA618554)

The port lateral light beacon (21° 09'.00 S 149° 13'.18 E) has been destroyed; a port lateral light buoy, *Fl.R.2.5s*, exists in situ.**Chart temporarily affected - Aus 249 - AX 00249S****858(T)/2012 AUSTRALIA - QUEENSLAND - Mackay - Shoaling**

Maritime Safety Queensland Notice 886(T)/2012 (AA620069)

Shoaling, with a least depth of 8.4m, exists in position 21° 06'.36 S 149° 15'.05 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 250**859(T)/2012 AUSTRALIA - QUEENSLAND - Dent Island - Light beacon unlit; light buoy established***Former Notice - 508(T)/2012 is cancelled*

Maritime Safety Queensland Notice 869(T)/2012 (AA618556)

The light beacon, *Fl.G.2.5s* (20° 20'.33 S 148° 56'.17 E) is unlit; a starboard lateral light buoy, *Fl.G.2.5s*, exists in situ.**Chart temporarily affected - Aus 253 - Aus 254**

860(T)/2012 AUSTRALIA - QUEENSLAND - Townsville - Harbour works*Former Notice* - 1034(T)/2011 is cancelled*Date* - Until 31 August 2013

Maritime Safety Queensland Notices 946(T)/2011, 862(T)/2012 (AA559067, AA618449)

Barges *MB 2448* and *MB 2421* and support vessels *MT Fury* and split hopper dumb barges are conducting piling and dredging operations at berths 8 and 10 in areas bounded by the following:

<i>Position</i>	<i>Remarks</i>
19° 15'.04 S 146° 49'.96 E	
19° 15'.02 S 146° 49'.97 E	
19° 15'.03 S 146° 50'.00 E	
19° 15'.13 S 146° 49'.96 E	special light buoy, <i>Fl. Y. 4s</i>
19° 15'.14 S 146° 49'.98 E	special light buoy, <i>Fl. Y. 4s</i>
19° 15'.15 S 146° 50'.00 E, and	
19° 15'.15 S 146° 49'.85 E	
19° 15'.10 S 146° 49'.87 E	special light buoy, <i>Fl. Y. 4s</i> .
19° 15'.07 S 146° 49'.88 E	special light buoy, <i>Fl. Y. 4s</i> .
19° 15'.04 S 146° 49'.89 E	special light buoy, <i>Fl. Y. 4s</i> .
19° 15'.01 S 146° 49'.90 E	special light buoy, <i>Fl. Y. 4s</i> .
19° 14'.98 S 146° 49'.91 E	special light buoy, <i>Fl. Y. 4s</i> .
19° 14'.95 S 146° 49'.91 E	special light buoy, <i>Fl. Y. 4s</i> .
19° 14'.94 S 146° 49'.88 E	special light buoy, <i>Fl. Y. 4s</i> .
19° 14'.96 S 146° 49'.85 E	special light buoy, <i>Fl. Y. 4s</i> .
19° 15'.01 S 146° 49'.84 E.	

Vessels will display appropriate lights and will monitor VHF Ch 12 and Ch 16.

During the works the berths are closed to shipping.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 257**862(T)/2012 AUSTRALIA - QUEENSLAND - Hinchinbrook Channel - Nav aids***Former Notice* - 204(T)/2012 is cancelled

Maritime Safety Queensland (AA616388)

The light beacon *Fl. R. 2-5s* (18° 28'.26 S 146° 13'.01 E) has been destroyed and light buoy *Q. G* (18° 30'.19 S 146° 18'.73 E) is off station.

Chart temporarily affected - Aus 259 - Aus 267

864(T)/2012 AUSTRALIA - QUEENSLAND - Cairns - Depth information*Former Notice - 810(T)/2012 is cancelled*

Maritime Safety Queensland Notice 860(T)/2012 (AA618388)

Available depths as of 14 August 2012:

	<i>Metres</i>	<i>Remarks</i>
* Entrance Channel	8.3	
Crystal Swing Basin at:		
360 metre diameter	6.8	
380 metre diameter	6.4	
Swing Basin at:		
310 metre diameter	8.7	
320 metre diameter	7.8	
Marlin Marina	4.2	
Berths:		
No 1	8.4	
No 2	8.5	
No 3	8.4	
No 4	8.4	
No 5	8.2	
No 6	8.1	between 500 metres and 550 metres
No 6	7.7	between 550 metres and 600 metres
No 7	9.9	
No 8	10.0	
No 10	9.3	
No 12	10.5	
Smiths Creek 1	4.7	

* Indicates revised entry.

Chart temporarily affected - Aus 262 - Aus 263 - Aus 264 - Aus 830**865(P)/2012 AUSTRALIA - QUEENSLAND - Low Islets - AIS trial***Date - On or about 14 December 2012*

Aus coast Warning 213/2012 (AA616695), Australian Maritime Safety Authority ATH 7/2012 (AA618098)

A real AIS unit MMSI 995031046 has been attached to the light, *Fl. 10s 20m 17M* (16° 23'.05 S 145° 33'.59 E).**Chart which will be affected - Aus 830 - Aus 831 - AX 6027S - Aus 4620 (INT 620) - AX 04620U****900(T)/2012 AUSTRALIA - QUEENSLAND - Hay Point - Diving operations***Former Notice - 651(T)/2012 is cancelled**Date - Until 22 December 2012*

Maritime Safety Queensland Notice 912(T)/2012 (AA621726)

Diving operations are in progress in the vicinity of the DBCT berths (21° 14'.96 S 149° 18'.31 E).

MV *Shadows* and barges *Clam* or *Shadowplay* are onsite and will display appropriate shapes and will monitor VHF Ch 14 and Ch 16.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 249 – Aus 250 – AX 00249S**950(T)/2012 AUSTRALIA - QUEENSLAND - Gladstone - Light buoys***Former Notice - 609(T)/2011 is cancelled*

Maritime Safety Queensland Notice 945(T)/2012 (AA624547)

Special light buoys, *Fl. Y.2.5s* exists in positions 23° 49'.45 S 151° 14'.60 E and 23° 49'.59 S 151° 14'.81 E.**Chart temporarily affected - Aus 244 - Aus 245**

951(T)/2012 AUSTRALIA - QUEENSLAND - Gladstone - Light buoys; light beacons removed

Date - Until 31 March 2013

Maritime Safety Queensland Notice 988(T)/2012 (AA625733)

Light buoys exist in the following positions:

Number	Position	Characteristic	Remarks
CB1	23° 49'.32 S 151° 15'.45 E	Fl.G.4s	Light beacon removed
CB2	23° 49'.29 S 151° 15'.09 E	Fl.R.4s	
CB3	23° 49'.15 S 151° 15'.23 E	Fl.G.4s	
CB4	23° 49'.11 S 151° 14'.85 E	Fl.R.4s	Light beacon removed
T3	23° 47'.97 S 151° 12'.81 E	Fl.G.4s	Light beacon removed
T4	23° 48'.12 S 151° 12'.87 E	Fl.R.4s	Light beacon removed.

Chart temporarily affected - Aus 244 - Aus 245**952(T)/2012 AUSTRALIA - QUEENSLAND - Gladstone - Mud Island - Dredging operations**

Former Notice - 920(T)/2011 is cancelled

Date - Until 2 November 2012

Maritime Safety Queensland Notice 943(T)/2012 (AA623234)

The dredge *Castor* is conducting dredging operations in the vicinity of position 23° 48'.43 S 151° 13'.16 E.

The dredge will display appropriate lights and shapes and monitor VHF Ch 13 and 16.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 245**953(T)/2012 AUSTRALIA - QUEENSLAND - Gladstone - Friend Point to Laird Point - Dredging operations**

Date - Until 31 January 2013

Maritime Safety Queensland Notice 979(T)/2012 (AA625209)

The dredge *Gungner R* and support vessels are conducting dredging operations between positions 23° 44'.86 S 151° 09'.44 E and 23° 44'.73 S 151° 10'.31 E.

Vessels will display appropriate lights and shapes and monitor VHF Ch 13, 15 and 16.

A 50m exclusion zone exists around the dredge.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 245 - Aus 819**958(T)/2012 AUSTRALIA - TORRES STRAIT - Madge Reef - Wreck**

Maritime Safety Queensland Notice 947(T)/2012 (AA624641)

A wreck marked by a special light buoy, *Fl. Y.2-5s*, exists in position 10° 35'.69 S 142° 14'.47 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 292 - Aus 293 - Aus 299**1002(T)/2012 AUSTRALIA - QUEENSLAND - Weipa - Depth information**

Former Notice - 813(T)/2012 is cancelled

Maritime Safety Queensland Notice 1018(T)/2012 (AA627806)

Available depths as at 27 September 2012:

	Metres
* Weipa Approaches	11.3
* South Channel	11.3
* Departure Channel	11.3
Cora Bank South Channel	7.3
Humbug Point Approaches	8.6
Humbug Point Berth	9.5
* Evans Landing	9.6
Lorim Point East	12.3
Lorim Point West	12.3
* Indicates revised entry	

Chart temporarily affected - Aus 4

1045(T)/2012 AUSTRALIA - QUEENSLAND - Brisbane River - Fisherman Islands - Harbour works; light buoy

Former Notice - 994(T)/2012 is cancelled

Date - Until 31 December 2013

Maritime Safety Queensland Notices 934(T)/2011, 1071/2012 (AA559073, AAAA629450)

Works associated with the construction of berths 11 and 12 are in progress.

The barge *Maeve Anne* is conducting piling operations in position 27° 21'.49 S 153° 10'.83 E and has deployed three anchors westward marked by special buoys.

A no wash zone exists between No20 light buoy (27° 21'.36 S 153° 10'.73 E) and position 27° 21'.12 S 153° 10'.90 E which is marked by a special light buoy *Fl.Y.2-5s*.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 237**1047(T)/2012 AUSTRALIA - QUEENSLAND - Gladstone - South Trees Point - Harbour works**

Date - Until 9 January 2013

Maritime Safety Queensland Notice 1092(T)/2012 (AA630369)

Piling operations are in progress at the eastern end of South Tress Wharf (23° 51'.13 S 151° 18'.92 E).

The barges *Markwell Outpost* and *Capricorn* are onsite and have deployed anchors marked by yellow buoys and will monitor VHF Ch 13.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 244 – Aus 245**1049(T)/2012 AUSTRALIA - QUEENSLAND - Gladstone - Dredging operations**

Date - Until 30 March 2013

Maritime Safety Queensland Notice 1080(T)/2012 (AA629958)

The dredge *Rotterdam* is conducting dredging operations between positions 23° 50'.0 S 151° 16'.0 E and 23° 45'.0 S 151° 10'.0 E.

The dredge will display appropriate lights and shapes and monitor VHF Ch 13, 15 and 16.

A 50m exclusion zone exists around the dredge.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 244 – Aus 245**1085(T)/2012 AUSTRALIA - QUEENSLAND - Moreton Bay - Peel Island - Lazaret Gutter - Beacon destroyed**

Maritime Safety Queensland Notice 1141(T)/2012 (AA632279)

The starboard beacon (27° 29'.18 S 153° 21'.06 E) has been destroyed.

Chart temporarily affected - Aus 236**1088(T)/2012 AUSTRALIA - QUEENSLAND - Hay Point - Exclusion zone; light buoys**

Former Notice - 999(T)/2012 is cancelled

Maritime Safety Queensland Notice 1001(T)/2012 (AA626309, AA632277)

An exclusion zone exists in an area bounded as follows:

<i>Position</i>	<i>Remarks</i>
21° 15'.86 S 149° 18'.78 E	
21° 15'.88 S 149° 18'.83 E	
21° 16'.16 S 149° 19'.02 E	special light buoy, <i>Fl.Y.4s</i>
21° 16'.37 S 149° 18'.63 E	special light buoy, <i>Q.Y</i>
21° 16'.08 S 149° 18'.45 E	special light buoy, <i>Q.Y</i>
21° 16'.39 S 149° 17'.87 E	
21° 16'.24 S 149° 17'.54 E	
21° 15'.70 S 149° 18'.55 E	
21° 15'.53 S 149° 18'.47 E	
21° 15'.48 S 149° 18'.58 E.	

Chart temporarily affected - Aus 249 - Aus 250 - Aus 823**1090(T)/2012 AUSTRALIA - QUEENSLAND - Mackay - Depth information**

Former Notice - 955(T)/2012 is cancelled

Maritime Safety Queensland Notice 1170(T)/2012 (AA633129)

Available depths as at 6 September 2012:

<i>Remarks</i>	<i>Metres</i>
* Entrance Channel	8.3
Swing Basin	8.5
Berth No 1	10.5
* Berth No 3	12.5
* Berth No 3 & 4 composite	12.3
* Berth No 4	10.4
* Berth No 5	12.0

* Indicates revised entry.

Chart temporarily affected - Aus 250**1136(T)/2012 AUSTRALIA - QUEENSLAND - Moreton Bay - Ship to ship transfer**

Date - Until 31 December 2012

Maritime Safety Queensland Notice 1213(T)/2012 (AA636768)

Ship to ship transfer of LPG will be conducted at STS1 anchorage (27° 17'.25 S 153° 16'.56 E). An exclusion zone (1850 metres radius) exists around transfer operations.

Chart temporarily affected – Aus 236**1138(T)/2012 AUSTRALIA - QUEENSLAND - Gladstone - Wiggins Islands - Exclusion zone**

Date - Until 31 January 2014

Maritime Safety Queensland Notice 1173(T)/2012 (AA636658)

An exclusion zone marked by special light buoys, *Fl. Y.2-5s*, exists in an area bounded by the following positions:

23° 49'.27 S 151° 12'.49 E
 23° 49'.10 S 151° 12'.56 E
 23° 48'.85 S 151° 12'.66 E
 23° 48'.59 S 151° 12'.76 E
 23° 48'.23 S 151° 12'.89 E
 23° 48'.41 S 151° 13'.45 E
 23° 48'.64 S 151° 13'.81 E
 23° 48'.80 S 151° 13'.40 E
 23° 48'.89 S 151° 13'.25 E
 23° 49'.14 S 151° 12'.93 E
 23° 49'.21 S 151° 12'.87 E
 23° 49'.27 S 151° 12'.83 E.

Special light buoys, *Fl. Y.2-5s*, exists in the following positions:

23° 48'.77 S 151° 13'.78 E
 23° 48'.89 S 151° 13'.73 E
 23° 48'.97 S 151° 13'.66 E.

Chart temporarily affected – Aus 245

1142(T)/2012 AUSTRALIA - QUEENSLAND - Townsville - Depth information

Former Notice - 901(T)/2012 is cancelled

Maritime Safety Queensland Notices 1186(T)/2012, 1187(T)/2012 (AA635575, AA635583)

Available depths as at 2 November 2012:

	Metres	Remarks
Sea Channel	11.7	
Platypus Channel	11.6	
<i>Outer Harbour:</i>		
Arrival Channel	7.0	
Departure Channel	10.9	
<i>Inner Harbour:</i>		
Harbour	11.7	
Berths:		
No 1	11.9	
No 2	12.0	(550 to 770 mark)
No 2	11.7	(770 to 790 mark)
No 3	11.9	
No 4	10.2	
No 7	10.3	
Between No 7 and No 8	9.8	Seaward of 0 mark at No 7
No 8	-	Works in progress
No 9	11.6	
Between No 9 and No 10	10.0	Seaward of 0 mark at No 10
No 10	-	Works in progress
No 11	11.3	
* Ross River Channel	2.0	Shoaling with least depth 1.2m exists at the southern and southeastern extremity of the Marine Precinct Turning Basin.
Ross River	-	No declared depth
Ross Creek	1.9	From Reef HQ to swing basin

* Indicates revised entry.

Chart temporarily affected - Aus 256 - Aus 257**1143(T)/2012 AUSTRALIA - QUEENSLAND - Cooktown - Light buoy off station**

Maritime Safety Queensland Notice 1209(T)/2012 (AA636673)

No1 starboard lateral light buoy, *Fl.G.2-5s* (15° 27'.21 S 145° 15'.34 E), is off station.**Chart temporarily affected - Aus 270****1205(T)/2012 AUSTRALIA - QUEENSLAND - Gladstone - Bushy Islet - Scientific instrument**

Former Notice - 417(T)/2011 is cancelled

Date - Until 15 June 2014

Maritime Safety Queensland (AA639719)

A special light buoy, *Fl.Y.3s*, exists in position 23° 50'.78 S 151° 20'.49 E.**Chart temporarily affected – Aus 244 – Aus 245****1209(T)/2012 AUSTRALIA - QUEENSLAND - Whitsunday Island - Craig Point - Wreck**

Maritime Safety Queensland Notice 1243(T)/2012 (AA639290)

A wreck marked by a special light buoy, *Q.Y.*, exists in position 20° 18'.58 S 149° 02'.07 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 252 – Aus 253**1210(T)/2012 AUSTRALIA - QUEENSLAND - Magnetic Island - Scientific instrument**

Former Notice - 1036(T)/2011 is cancelled

Date - Until 5 November 2013

Maritime Safety Queensland Notice 1192(T)/2012 (AA636987)

A scientific instrument marked by a special light buoy, *Fl.Y.3s*, exists in position 19° 09'.32 S 146° 52'.57 E.**Chart temporarily affected – Aus 256**

1264(T)/2012 AUSTRALIA - QUEENSLAND - Moreton Bay - Brisbane River - Depth information

Former Notice - 1201(T)/2012 is cancelled

Brisbane Port Corporation (AA642737), Maritime Safety Queensland Notices 1305(T)/2012 (AA642637)

Available depths and under keel clearances (UKC) at 13 December 2012:

<i>Berth</i>	<i>Metres</i>	<i>Remarks</i>
Fisherman Islands No10	13.9	
Fisherman Islands No9	13.9	
Fisherman Islands No8	14.0	
Fisherman Islands No7	14.0	
Fisherman Islands No6	14.1	
* Fisherman Islands No5	14.0	
* Fisherman Islands No4	13.8	
Fisherman Islands No3	14.0	
Fisherman Islands No2	14.0	
Fisherman Islands No1	14.0	
Fisherman Islands Grain and Woodchip	13.2	
* Caltex Fisherman Islands	14.5	
* Fisherman Islands Coal	13.8	
* Fisherman Islands General Purpose	11.4	
* BP Luggage Point	14.3	
Caltex Products	10.1	
Cement Australia Co Wharf	9.8	
* BP Products	10.6	
Shell	11.0	
Pacific Terminals	10.8	
Incitec North	10.1	
* Incitec South	10.4	
Pinkenba 1	10.4	
Pinkenba 2	10.4	
Riverside Marina	-	
Sugar Terminal	9.8	
Cairncross Fitting Out Wharf	8.3	
Cairncross Breasting Wharf	6.3	
Brisbane Naval Wharf	4.3	
Maritime No1	9.0	
Hamilton No4	10.1	
Hamilton No1	8.8	
Brisbane Cruise Ship Terminal	9.0	

	<i>Metres</i>	<i>UKC/Remarks</i>
<i>Moreton Bay :</i>		
North West Channel	15.0	2.3 (280m width)
North West Bypass Channel	9.2	1.6
* Spitfire Channel	15.0	1.5 (600m width). Shoaling least depth, 14.6m, exists in position 27° 02'.39 S 153° 15'.66 E.
East Knoll Bypass Channel	6.0	1.4
East Channel	15.0	1.5 (300m width from western side)
Main Channel (M8 - M9)	10.0	1.8
Entrance Channel (E5 - EBCN)	14.7	1.5
<i>Brisbane River :</i>		
* Entrance Beacons and Inner Bar Cutting	13.8	1.46
Entrance Beacons and Outer Bar Cutting	14.0	1.46
Fisherman Islands Swing Basin	13.9	1.3
Pelican Banks Reach to Hamilton Reach	9.1	0.6 / 0.9 (draft/tide)
Cement Australia Swing Basin	9.1	0.6 / 0.9 (draft/tide)
Pinkenba Swing Basin	9.1	0.6 / 0.9 (draft/tide)
Hamilton Swing Basin	9.1	0.6 / 0.9 (draft/tide)

* Indicates new or revised entry.

Chart temporarily affected – Aus 235 – Aus 236 – Aus 237 – Aus 238 – Aus 814 – Aus 815**1265(T)/2012 AUSTRALIA - QUEENSLAND - Moreton Bay - Manly - Light beacon destroyed**

Maritime Safety Queensland Notice 1301(T)/2012 (AA642817)

No3 light beacon, *Fl.G.4s* (27° 26'.87 S 153° 11'.93 E), has been destroyed; a starboard light buoy, *Q.G*, exists in situ.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 236

1266(T)/2012 AUSTRALIA - QUEENSLAND - Brisbane River - Lytton Reach - Shoaling; exclusion zone; dredging operations

Former Notice - 344(T)/2012 is cancelled

Date - Until 31 December 2012

Maritime Safety Queensland Notices 220(T)/2012, 293(T)/2012, 1296(T)/2012 (AA588167, AA591029, AA642015)

Due to shoaling an exclusion zone, marked by 10 special light buoys, Q.Y, exists in an area bounded by the following:

<i>Position</i>	<i>Remarks</i>
27° 25'.15 S 153° 08'.67 E	
27° 25'.13 S 153° 08'.59 E	port lateral light buoy, Q.R
27° 25'.20 S 153° 08'.52 E	port lateral light buoy, Q.R
27° 25'.28 S 153° 08'.55 E.	

The dredge *Ken Harvey* is conducting dredging operations and remediation works in the area. Three water quality monitors exist close to shore adjacent to the worksite.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 237 – Aus 238**1268(T)/2012 AUSTRALIA - QUEENSLAND - Mooloolaba - Shoaling; dredging operations**

Former Notice - 1203(T)/2012 is cancelled

Maritime Safety Queensland Notice 1303(T)/2012 (AA642510)

Shoaling with a least depth of 2.7m exists within the main channel to Mooloolah River. Shoaling with a least depth of 1.9m exists adjacent to the end of the eastern breakwater in the vicinity of position 26° 40'.76 S 153° 07'.94 E.

The dredge *Navua* is conducting dredging operations in the entrance channel. A floating pipeline exists from the dredge to the western breakwater. The dredge will display appropriate lights and shapes and will monitor VHF Ch 12, Ch 16 and Ch 73.

Mariners are advised to keep at least 30m clear from the seaward end of the eastern breakwater due to obstructions and to navigate with caution in the area.

Chart temporarily affected – Aus 235**1270(T)/2012 AUSTRALIA - QUEENSLAND - Gladstone - Fishermans Landing Wharves - Light buoy moved**

Maritime Safety Queensland Notice 1289(T)/2012 (AA641783)

The TSB7 special light buoy (23° 47'.02 S 151° 10'.38 E) has been temporarily moved to 23° 47'.17 S 151° 10'.33 E.

Chart temporarily affected – Aus 244 – Aus 245**1274(T)/2012 AUSTRALIA - QUEENSLAND - Port Douglas - Depth information**

Former Notice - 463(T)/2012 is cancelled

Maritime Safety Queensland Notice 1297(T)/2012 (AA642027)

Available depths as at 6 December 2012:

	<i>Metres</i>
* Outer Channel	1.4
Inner Channel	2.1
Boat ramp to marina	1.9

* Indicates revised entry.

Chart temporarily affected – Aus 270

NORTHERN TERRITORY

223(T)/2009 AUSTRALIA - TIMOR SEA - Sahul Banks - Navaid; racon non operational

Former Notice - 671(T)/2008 is cancelled
 Modec Management Services (AA384494)

A lit riser turret mooring exists in position 10° 52'.50 S 126° 34'.19 E. The racon is non operational.

Chart temporarily affected - Aus 312 - Aus 4721 (INT 721) - AX 0312F - AX 4721F

324(T)/2011 AUSTRALIA - NORTHERN TERRITORY - Apsley Strait - Light buoys off station and unlit

Department of Lands and Planning (AA523799)

Light buoys in Apsley Strait between positions 11° 51'.61 S 130° 35'.09 E and 11° 17'.03 S 130° 17'.90 E are off station and unlit.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 22 - Aus 23 - Aus 309 - Aus 722 - AX 0309F - AX 72309 - AX 72722

160(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Cape Wessels - Wreck westnorthwestward

Former Notice - 617(T)/2011 is cancelled
 HMAS *Melville* (AA539627, AA539628)

A partially submerged 25m fishing vessel is moored in position 10° 41'.56 S 135° 43'.08 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 306 - AX 0306F

758(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Darwin - East Arm - Dredging operations

Date - Until 6 April 2013

Darwin Port Corporation Notices 75(T)/2012, 77(T)/2012 (AA614132, AA614138)

The dredge *Eastern Aurora* is conducting dredging operations in the vicinity of position 12° 29'.64 S 130° 53'.38 E.

A pipeline exists from the dredge to the shoreline (12° 29'.39 S 130° 53'.48 E) and will be marked by buoys and lights, Q. Y.

A special light buoy, Q. Y, exists in position 12° 30'.23 S 130° 52'.72 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 26 – Aus 28 – AX 72026

759(T)/2012 AUSTRALIA - TIMOR SEA - Margaret Harries Banks - Seismic survey

Date - Until 15 December 2012

Fugro Multi Client Services Pty Ltd (AA613326, AA613327, AA613982)

MV *Geo Atlantic*, with a 6000m towed array, and support vessels *Cassandra 6* and *Northern Odyssey* are conducting a survey in the area bounded by the following positions:

11° 38'.5 S 126° 39'.5 E
 10° 22'.0 S 128° 10'.5 E
 10° 35'.5 S 128° 23'.0 E
 11° 55'.5 S 126° 50'.5 E.

Chart temporarily affected – Aus 309 – Aus 311 – Aus 312 – Aus 315 – Aus 4721 (INT 721) – AX 00309U – AX 00311U – AX 00312U – AX 00315U – AX 04721U

814(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Darwin - Light buoy withdrawn

Darwin Port Corporation Notice 83(T)/2012 (AA616039)

The light buoy, *Fl. Y.4s*, (12° 28'.08 S 130° 49'.77 E), has been temporarily withdrawn.

Chart temporarily affected – Aus 24 – Aus 26 – AX 72026

867(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Darwin - Blaydin Point to Walker Shoal - Diving operations*Date* - Until 26 October 2012

Darwin Port Corporation Notice 94(T)/2012 (AA619924)

Diving operations are in progress between Blaydin Point (12° 30'.55 S 130° 55'.30 E) and Walker Shoal (12° 29'.46 S 130° 52'.39 E).

Dive vessels will display appropriate shapes and will monitor VHF Ch 10, Ch 16 and Ch 71. A 250m safety zone exists around the vessels.

Dive sites will be marked by special light buoys, Q.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 26 - Aus 28 - AX 72026

870(T)/2012 INDIAN OCEAN - Sumatera - Scientific instruments westwards*Former Notice* - 817(T)/2012 is cancelled

JAMSTEC (AA620015, AA620016)

Scientific instruments, Triton buoys, exist as follows:

<i>Number</i>	<i>Position</i>
17	4° 56'.93 S 94° 58'.51 E
18	1° 39'.34 S 89° 59'.74 E
19	7° 59'.97 S 95° 02'.39 E
20	4° 57'.55 S 97° 17'.13 E.

Chart temporarily affected - Aus 4070 (INT 70) - Aus 4071 (INT 71)

910(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Darwin - Cossack Creek - Obstruction

Darwin Port Corporation Notice 103/2012 (AA622006)

An obstruction exists in position 12° 31'.37 S 130 54'.08 E.

Chart temporarily affected – Aus 28

1003(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Darwin - Lee Point to Fannie Bay - Obstructions*Date* - Until 30 September 2013

Darwin Port Corporation Notice 120(T)/2012 (AA627292)

Obstructions exist in positions 12° 21'.69 S 130° 51'.23 E and 12° 25'.88 S 130° 49'.84 E.

Chart temporarily affected - Aus 24 - Aus 26 - AX 72026

1004(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Darwin - Depth information

Former Notice - 62(T)/2012 is cancelled

Darwin Port Corporation (AA627294)

Available depths as at 26 September 2012:

<i>Berths</i>	<i>Metres</i>
* LNG 1-2	10.1
DLNG	13.1 (11.7 in Turning Basin)
* East Arm 0-100m	11.3
* East Arm 100-200m	12.2
* East Arm 200-300m	12.6
* East Arm 300-400m	12.6
* East Arm 400-500m	12.5
* East Arm 500-600m	13.3
East Arm 600-700m	11.8
Bulk Solids Wharf	12.4
Bulk Liquids Wharf	11.4
No 2 Fort Hill East	10.6
No 2 Fort Hill West	10.2
No 3 Stokes Hill East	4.7
No 3 Stokes Hill West	4.9
No 4 Stokes Hill East	1.7
No 4 Stokes Hill Middle	0.8
No 4 Stokes Hill West	3.2
Fishermans Wharf East	2.1
Fishermans Wharf West	0.7
Perkins International	-0.7
Perkins Domestic North	-0.9
Perkins Domestic South	-1.7
Frances Bay Marina approach channel	-0.9

* Indicates new or revised entry.

Chart temporarily affected - Aus 24 - Aus 27 - Aus 28**1095(T)/2012 AUSTRALIA - Darwin - Channel Island to Blaydin Point - Scientific instruments**

Date - Until 31 January 2013

Darwin Port Corporation Notice 152(T)/2012 (AA634978)

Light buoys, *Fl. Y. 3s*, exist in the following positions:

12° 32'.88 S 130° 50'.75 E
 12° 29'.84 S 130° 52'.42 E
 12° 30'.63 S 130° 54'.00 E
 12° 29'.79 S 130° 55'.18 E.

Chart temporarily affected - Aus 26 - Aus 27 - Aus 28 - AX 72026**1096(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Darwin - Blaydin Point - Pontoon**

Date - Until 4 December 2012

Darwin Port Corporation Notice 146(T)/2012 (AA633169)

A pontoon with a tide gauge exists in position 12° 30'.29 S 130° 55'.18 E.

Anchors will be marked by lights.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 26 - Aus 28 - AX 72026**1146(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Fenton Patches - Scientific instruments**

Former Notice - 960(T)/2012 is cancelled

Date - Until 31 August 2014

Darwin Port Corporation Notice 158(T)/2012 (AA636819)

Special light buoys, *Fl. Y. 3-5s*, exist in positions 12° 15'.17 S 130° 46'.39 E and 12° 14'.10 S 130° 50'.38 E.**Chart temporarily affected - Aus 309 - Aus 722 - AX 72309 - AX 72722 - AX 00309U**

1148(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Darwin - Blaydin Point - Scientific instruments

Former Notice - 961(T)/2012 is cancelled

Date - Until 31 August 2014

Darwin Port Corporation Notice 159(T)/2012 (AA637096)

Special light buoys, *Fl. Y.3-5s*, exist in positions 12° 30'.40 S 130° 53'.16 E and 12° 31'.47 S 130° 56'.13 E.

Chart temporarily affected - Aus 26 - Aus 28 - AX 72026**1149(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Darwin - East Arm - Blaydin Point - Harbour works; dredging operations**

Former Notice - 1005(T)/2012 is cancelled

Date - Until 31 January 2014

Darwin Port Corporation Notice 149(T)/2012 (AA635212)

Works associated with the construction of the module offloading facility are in progress in an area bounded by the following positions:

12° 30'.56 S 130° 55'.28 E
 12° 30'.29 S 130° 55'.63 E
 12° 30'.62 S 130° 55'.90 E
 12° 31'.02 S 130° 55'.99 E
 12° 31'.13 S 130° 55'.74 E.

The causeway is marked at the extremities by Q. Y lights.

The dredges *Athena*, *Hippopotus*, *Baldur*, *Queen of the Netherlands* and *Simpson* and barges *Cornelius Lely*, *Pieter Caland*, *Le Sphinx* and *L'Toile* are conducting dredging operations in an area bounded by the following positions:

12° 30'.01 S 130° 53'.11 E
 12° 30'.30 S 130° 53'.71 E
 12° 30'.19 S 130° 54'.16 E
 12° 30'.33 S 130° 54'.94 E
 12° 30'.47 S 130° 54'.99 E
 12° 30'.65 S 130° 54'.36 E
 12° 30'.40 S 130° 53'.23 E.

A floating pipeline marked by special lights is exists from the dredge *Athena* to the dredge *Queens of the Netherlands*.

A 250m radius safety zone exists around all vessels. An exclusion zone exists within the area of the works and dredging operations.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 26 - Aus 28 - AX 72026**1150(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Lorna Shoal - UXO disposal operations westwards**

Date - Until 13 December 2012

Offshore Unlimited (AA637321, AA637371)

MV *Unlimited* is conducting UXO disposal operations in an area bounded by the following positions:

12° 29'.0 S 129° 35'.0 E
 12° 29'.0 S 130° 01'.0 E
 12° 21'.0 S 130° 01'.0 E
 12° 21'.0 S 129° 35'.0 E.

Operations will involve the detonation of small explosive charges on the seabed.

The vessel will monitor VHF Ch 16 and mariners are advised to keep 1852m clear of the vessels during operations.

Chart temporarily affected - Aus 309 - Aus 316 - Aus 722 - AX 72309 - AX 72722 - AX 00309U

1287(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Melville Island - Seismic survey northwestwards

Date - Until 7 January 2013
Enquest Pty Ltd (AA642756)

MV *Voyager Explorer* is conducting a survey in the area bounded by the following positions:

10° 35'.08 S 129° 15'.08 E
10° 43'.24 S 129° 15'.09 E
10° 43'.12 S 130° 09'.30 E
10° 19'.00 S 130° 09'.21 E
10° 19'.07 S 129° 44'.07 E
10° 34'.96 S 129° 44'.07 E.

Chart temporarily affected – Aus 309 – Aus 310 – AX 72309 – AX 00309U – AX 00310U

WESTERN AUSTRALIA**518(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Geographe Bay - Scientific instrument**

Former Notice - 1260(T)/2006 is cancelled
Department for Planning and Infrastructure WA (AA400740)

A scientific instrument exists in position 33° 36'.7 S 115° 13'.7 E (WGS84 datum).

Chart temporarily affected - Aus 334 - Aus 335 - Aus 755 - Aus 756 – AX 0334E – AX 0755E

524(T)/2010 AUSTRALIA - WESTERN AUSTRALIA - Mullaloo to Warnbro Sound - Scientific instruments

Former Notice - 461(T)/2010 is cancelled
Department of Transport WA (AA465142)

Special light buoys, *Fl. Y.5s*, exist in positions:

31° 45'.85 S 115° 43'.29 E	31° 47'.37 S 115° 42'.39 E
31° 47'.89 S 115° 41'.75 E	31° 52'.11 S 115° 42'.81 E
31° 52'.52 S 115° 43'.46 E	31° 53'.14 S 115° 43'.78 E
31° 53'.58 S 115° 44'.25 E	31° 53'.88 S 115° 44'.90 E
31° 55'.73 S 115° 44'.85 E	31° 56'.33 S 115° 44'.84 E
31° 58'.67 S 115° 44'.79 E	31° 59'.26 S 115° 44'.65 E
31° 59'.76 S 115° 44'.59 E	32° 01'.39 S 115° 43'.78 E
32° 01'.58 S 115° 44'.62 E	32° 01'.45 S 115° 34'.29 E
32° 04'.79 S 115° 37'.42 E	32° 05'.69 S 115° 37'.54 E
32° 08'.65 S 115° 38'.57 E	32° 20'.97 S 115° 44'.00 E.

Mariners are not to use these buoys as moorings.

Chart temporarily affected - Aus 112 - Aus 116 - Aus 117 - Aus 334 - Aus 754 - Aus 755 – AX 0334S – AX 0754S – AX 0755S – AX 63112 – AX 66002 – AX 70117

629(T)/2010 AUSTRALIA - WESTERN AUSTRALIA - Dampier Archipelago - Scientific instruments northwestwards

Former Notice - 523(T)/2004 is cancelled
MetOcean Engineers (AA472066)

Scientific instruments exist as follows:

Position (WGS84 datum)	Remarks
19° 36'.38 S 116° 07'.53 E	lit buoy, <i>Fl(5)Y.20s</i>
19° 36'.51 S 116° 07'.63 E	5 poly floats

Chart temporarily affected - Aus 327

722(T)/2010 AUSTRALIA - WESTERN AUSTRALIA - Port Hedland - Depth information*Former Notice - 1080(T)/2009 is cancelled*

Port Hedland Port Authority Notice 5/2010 (AA477996)

Available depths as at 31 March 2010:

<i>Berth</i>	<i>Metres</i>
PHPA berth 1	12.0
PHPA berth 2	11.2
PHPA berth 3	12.2
BHP Billiton Nelson Point berth A	18.0
* BHP Billiton Nelson Point berth B	17.5
BHP Billiton Finucane Island berth C	17.9
* BHP Billiton Finucane Island berth D	19.2
Anderson Point berth 1	19.1
* Anderson Point berth 2	19.7

* Indicates revised entry.

Chart temporarily affected - Aus 52 - Aus 54**1088(T)/2010 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Ant Point - Anchorage northeastwards**

Department of Transport WA Notice 89/2010 (AA497019)

An anchorage with a 300m radius swinging circle exists in position 20° 42'.2 S 115° 29'.8 E (WGS84 datum).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 62 - Aus 742**124(T)/2011 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Scientific instrument***Date - Until 31 December 2011*

Department of Transport WA (AA511737, AA514503, AA514504)

A scientific instrument marked by a special light buoy, *Fl(5)Y.20s*, exists in position 20° 50'.14 S 115° 30'.46 E.**Chart temporarily affected – Aus 62 – Aus 742 – Aus 743****278(T)/2011 AUSTRALIA - WESTERN AUSTRALIA - Comet Bay - Scientific instrument***Date - Until 31 August 2012*

CSIRO (AA520991, AA520995)

A subsurface scientific instrument exists in position 32° 23'.97 S 115° 44'.10 E.

Chart temporarily affected – Aus 755 – AX 0755S – AX 66002**382(T)/2011 AUSTRALIA - WESTERN AUSTRALIA - Browse Island - Scientific instrument**

MetOcean Engineers (AA524835)

A subsurface scientific instrument exists in position 13° 56'.34 S 123° 16'.66 E.

Chart temporarily affected - Aus 319 - Aus 320 - AX 0319F**622(T)/2011 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Scientific instruments northwards***Former Notice - 577(T)/2011 is cancelled**Date - Until 30 November 2011*

MetOcean Engineers, UKHO (AA536573, AA539590)

Scientific instruments exist as follows:

<i>Position (WGS84 datum)</i>	<i>Remarks</i>
19° 49'.29 S 115° 38'.17 E	5 poly floats
19° 49'.35 S 115° 38'.07 E	lit buoy, <i>Fl(5)Y.20s</i>

Chart temporarily affected – Aus 327 – Aus 328

776(T)/2011 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Pipeline infrastructure*Former Notice* - 718(T)/2011 is cancelled*Date* - Until 10 December 2011

Department of Transport WA Notice 93/2011 (AA546427)

Works associated with pipeline infrastructure installation are in progress. An exclusion zone marked by special light buoys, Q.Y, exists within an area bounded by the following positions (WGS84 datum):

20° 41'.40 S 115° 23'.71 E

20° 41'.79 S 115° 24'.68 E

20° 41'.00 S 115° 25'.03 E

20° 40'.55 S 115° 24'.08 E.

MV *Carlisle* will monitor VHF Ch 16 and all vessels involved in the operations will display appropriate lights and shapes.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 327 - Aus 328 - Aus 742**941(T)/2011 AUSTRALIA - WESTERN AUSTRALIA - Glomar Shoal - Scientific instruments westwards***Former Notice* - 574(T)/2011 is cancelled*Date* - Until 31 May 2012

MetOcean Engineers (AA552557)

Scientific instruments marked by special light buoys, *Fl(5)Y.20s*, exist in positions 19° 34'.97S 116° 28'.48E and 19° 35'.05S 116° 28'.47E.

Chart temporarily affected - Aus 327 - Aus 741**944(T)/2011 AUSTRALIA - WESTERN AUSTRALIA - Fremantle - Owen Anchorage - Harbour works***Former Notice* - 778(T)/2011 is cancelled*Date* - Until 31 March 2012

Department of Transport WA Notice 108/2011 (AA553618)

Works associated with the construction of Port Coogee Marina are in progress (32° 06'.00 S 115° 45'.55 E).

An exclusion zone is marked by a silt curtain and special light buoys, Q.Y.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 117 - AX 70117**988(T)/2011 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Scientific instrument***Former Notice* - 434(T)/2011 is cancelled*Date* - Until 30 November 2011

Department of Transport WA Notice 112/2011 (AA556389)

A special light buoy, *Fl(5)Y.20s*, exists in position 20° 47'.63 S 115° 29'.12 E.

Chart temporarily affected – Aus 62 – Aus 742**126(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Port Walcott - Scientific instrument***Date* - Until 30 April 2012

Department of Transport WA Notice 13/2012 (AA5782621)

A special light buoy, *Fl(5)Y.20s*, exist in position 20° 34'.28 S 117° 11'.38 E.

Chart temporarily affected – Aus 55 – Aus 56**127(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Mermaid Sound - Obstructions***Former Notice* - 911(T)/2009 is cancelled

Dampier Port Authority Notice 1/2012 (AA578115)

Obstructions marked by special light buoys, Q, exist in the following positions:

20° 31'.47 S 116° 45'.16 E

20° 31'.96 S 116° 44'.57 E

20° 32'.49 S 116° 44'.51 E

20° 32'.79 S 116° 44'.51 E.

Chart temporarily affected – Aus 57 – Aus 58

260(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Pipeline*Former Notice* - 209(T)/2012 is cancelled*Date* - Until 30 June 2013

Australian Maritime Safety Authority (AA584979), Chevron Australia Pty Ltd (AA585081, AA585082, AA587422)

SPV *Lorelay* and support vessels *Highland Navigator* and *Calamity Jane* are conducting pipe laying operations between the following positions:

20° 41'.45 S 115° 24'.94 E

20° 33'.59 S 115° 05'.86 E

20° 08'.98 S 114° 49'.43 E

20° 02'.34 S 114° 46'.95 E

19° 54'.34 S 114° 39'.60 E

19° 48'.54 S 114° 36'.47 E

and

19° 49'.54 S 114° 34'.21 E

19° 47'.45 S 114° 38'.63 E

and

20° 34'.92 S 115° 08'.99 E

20° 33'.97 S 115° 04'.62 E

20° 29'.25 S 114° 53'.86 E

20° 24'.56 S 114° 50'.87 E

20° 31'.33 S 114° 49'.35 E

20° 29'.25 S 114° 53'.86 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 327 - Aus 328 - Aus 742**360(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Scientific instruments***Former Notice* - 139(T)/2010 is cancelled*Date* - Until 30 April 2012

Chevron Australia Pty Ltd (AA590476)

Scientific instruments marked by special light buoys, *Fl(5)Y.20s*, exist in positions

20° 48'.3 S 115° 28'.9 E and 20° 49'.4 S 115° 30'.6 E.

Chart temporarily affected - Aus 62 - Aus 742 - Aus 743**362(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Exmouth Plateau - Scientific instruments***Former Notice* - 436(T)/2011 is cancelled*Date* - Until 31 May 2012

MetOcean Engineers (AA586402)

Subsurface scientific instruments exist in positions 20° 14'.21 S 113° 53'.59 E and 20° 23'.61 S 114° 03'.90 E.

Chart temporarily affected - Aus 328 - Aus 329**418(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Esperance - Depth information***Former Notice* - 337(T)/2010 is cancelled

Esperance Ports Sea and Land Notice 3/2012 (AA593980)

Available depths as of 11 April 2012:

<i>Location</i>	<i>Metres</i>
* Berth No 1	13.0
* Berth No 2	13.0
* Berth No 3	17.6
Swing Basin	12.9/14.5
Entrance Channel	18.5

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 119**474(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Koombana Bay - Scientific Instrument***Date* - Until 30 January 2014

Department of Transport WA Notice 46/2012 (AA596083)

Scientific instrument marked by a spherical special buoy exist in position, 33° 19'.17 S 115° 39'.05 E.

Chart temporarily affected - Aus 115

524(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Fremantle - Harbour works

Date - Until 14 December 2012

Department of Transport WA Notice 50/2012 (AA598648, AA598649)

Harbour works associated with the extension of jetty 2 (32° 03'.79 S 115° 44'.77 E) are in progress Fishing Boat Harbour.

An exclusion zone is marked special light buoys, Q.Y.

Barges and a support vessel are on site and will display appropriate lights and monitor VHF Ch 16. Anchors deployed by the vessels will be marked by buoys.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 113**619(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Locker Island to Murion Island - Pipeline**

Date - Until 15 December 2012

BHP Billiton (AA604285, AA604286)

DB30, dredge *Baldur* and support vessels MV *Statum* and MV *Ocean Spirit* are conducting pipe laying operations between the following positions:

21° 34'.37 S 114° 11'.79 E	21° 33'.04 S 114° 16'.05 E
21° 32'.19 S 114° 23'.43 E	21° 32'.78 S 114° 32'.03 E
21° 34'.18 S 114° 34'.09 E	21° 35'.28 S 114° 34'.47 E
21° 39'.59 S 114° 38'.33 E	21° 40'.63 S 114° 45'.30 E
21° 42'.31 S 114° 47'.65 E	21° 42'.96 S 114° 48'.42 E
21° 43'.64 S 114° 49'.47 E	21° 44'.32 S 114° 50'.77 E.

All vessels will display appropriate lights and monitor VHF Ch 16.

A 1000m exclusion zone exists either side of the pipeline route.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 328 – Aus 329 – Aus 743 – Aus 744**661(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Dampier - King Bay - Light beacon damaged**

Former Notice - 521(T)/2012 is cancelled

Dampier Port Authority Notice 12/2012 (AA606820)

The No3 light beacon (20° 37'.75 S 116° 44'.29 E) has been damaged; a temporary light, *Fl(2)G.5s*, exists on the beacon and a light buoy, *Fl.5s*, exists in situ.

Chart temporarily affected - Aus 59**712(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - James Price Point - Scientific instruments**

Former Notice - 255(T)/2012 is cancelled

Date - Until 31 March 2013

MetOcean Engineers (AA609181)

Scientific instruments exist as follows:

Position	Remarks
17° 31'.31 S 122° 07'.48 E	5 poly floats
17° 31'.19 S 122° 07'.51 E	<i>Fl(5)Y.20s</i>
17° 31'.22 S 122° 07'.65 E	<i>Fl(5)Y.20s</i> .

Chart temporarily affected - Aus 324**713(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Rankin Bank - Scientific instrument northeastwards**

Former Notice - 943(T)/2011 is cancelled

MetOcean Engineers (AA609181)

A subsurface scientific instrument exists in position 19° 34'.47 S 116° 09'.53 E.

Chart temporarily affected - Aus 327

714(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Cape Preston - Scientific instrument northwestwards
Department of Transport WA Notice 148/2011 (AA610844), F Lawrence (AA610845, AA610846)

A special conical light buoy, Q, exists in position 20° 43'.71 S 116° 08'.77 E.

Chart temporarily affected - Aus 327 - Aus 742

765(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Mary Anne Group to Ashbuton Road - Scientific instruments

Former Notice - 473(T)/2012 is cancelled

Date - Until 16 July 2013

Department of Transport WA Notices 42(T)/2012, 69(T)/2012 (AA596300, AA613722)

Scientific instruments marked by special light buoys, *Fl. Y. 6s*, exist in the following positions:

21° 19'.59 S 115° 23'.48 E	21° 19'.69 S 115° 09'.41 E
21° 31'.78 S 115° 05'.32 E	21° 31'.81 S 115° 05'.33 E
21° 31'.81 S 114° 46'.23 E	21° 32'.53 S 115° 03'.14 E
21° 32'.55 S 115° 03'.15 E	21° 32'.62 S 115° 02'.87 E
21° 32'.65 S 115° 02'.88 E	21° 32'.68 S 115° 02'.71 E
21° 32'.69 S 115° 02'.36 E	21° 32'.70 S 115° 02'.72 E
21° 32'.71 S 115° 02'.37 E	21° 32'.73 S 115° 02'.20 E
21° 32'.76 S 115° 02'.21 E	21° 32'.81 S 115° 01'.92 E
21° 32'.82 S 115° 04'.61 E	21° 32'.84 S 115° 01'.93 E
21° 33'.43 S 114° 59'.70 E	21° 33'.46 S 114° 59'.71 E
21° 34'.01 S 115° 00'.98 E	21° 34'.15 S 115° 03'.42 E
21° 35'.80 S 115° 01'.56 E	21° 35'.86 S 115° 01'.37 E
21° 35'.87 S 115° 01'.57 E	21° 35'.90 S 115° 01'.40 E
21° 35'.92 S 115° 01'.06 E	21° 35'.96 S 115° 01'.10 E
21° 36'.49 S 114° 58'.85 E	21° 36'.55 S 114° 58'.85 E
21° 37'.87 S 114° 41'.40 E	21° 38'.93 S 114° 55'.54 E
21° 39'.09 S 114° 53'.98 E	21° 43'.09 S 114° 46'.22 E.

Chart temporarily affected – Aus 63 – Aus 64 – Aus 743 – Aus 744

917(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Montebello Islands to Barrow Island - Lit mooring buoys

Former Notice - 390(T)/2011 is cancelled

Chevron Australia Pty Ltd (AA622588 - AA622594)

Lit yellow mooring buoys, *Fl. Y. 10s*, exist in positions (WGS84 datum):

21° 05'.94 S 115° 30'.83 E	21° 02'.44 S 115° 29'.06 E
20° 57'.75 S 115° 28'.07 E	20° 54'.09 S 115° 27'.74 E
20° 51'.62 S 115° 31'.96 E	20° 51'.56 S 115° 29'.54 E
20° 49'.85 S 115° 30'.40 E	20° 47'.36 S 115° 30'.34 E
20° 47'.01 S 115° 29'.80 E	20° 44'.16 S 115° 29'.06 E
20° 44'.00 S 115° 29'.16 E	20° 33'.34 S 115° 34'.33 E
20° 30'.47 S 115° 33'.86 E.	

Chart temporarily affected – Aus 61 – Aus 62 – Aus 63 – Aus 742 – Aus 743

1006(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Cape Londonderry - Scientific instruments northeastwards

Former Notice - 1098(T)/2011 is cancelled

MetOcean Engineers (AA627920)

Scientific instruments exist as follows:

<i>Position (WGS84 datum)</i>	<i>Remarks</i>
13° 07'.66 S 128° 11'.59 E	subsurface
12° 56'.11 S 128° 23'.90 E	subsurface
12° 48'.03 S 128° 25'.46 E	<i>Fl(5)Y.20s</i>
12° 47'.66 S 128° 25'.83 E	<i>Fl(5)Y.20s</i>
12° 47'.64 S 128° 25'.06 E	subsurface
12° 47'.26 S 128° 25'.43 E	<i>Fl(5)Y.20s.</i>

Chart temporarily affected - Aus 315 - Aus 318 - AX 00315U

1009(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Dredging operations

Date - Until 31 October 2012

Port of Dampier Notice 21/2012 (AA627887)

The dredge *Vitruvius* and support vessels *Victoria*, *Trinidad*, *Bhagwan Statum* and *Ocean Spirit* are conducting dredging operations in the vicinity of position 20° 36'.9 S 116° 44'.9 E.

The dredge material will be deposited at the southern end of the spoil ground (20° 37'.0 S 116° 40'.7 E) east of East Lewis Island.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 58 - Aus 59 - Aus 60

1053(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Seringapatam Reef - Scientific instrument

Date - Until 7 October 2013

Fugro Survey Pty Ltd (AA630323 - AA630325)

A special light buoy, *Fl(5)Y.20s*, exists in position 13° 43'.39 S 122° 15'.83 E.

Chart temporarily affected – Aus 322 – AX 00322U

1054(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Glomar Shoal - Drill rig northwards

Australian Maritime Safety Authority Auscoast Warning 263/2012 (AA629387)

Drill rig *Nan Hai 6* is conducting drilling operations in position 19° 17'.57 S 116° 45'.82 E.

Chart temporarily affected – Aus 327 – Aus 741

1056(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - North West Cape - Drill rig southwestwards

Former Notice - 1010(T)/2012 is cancelled

Australian Maritime Safety Authority Auscoast Warning 265/2012 (AA629880)

Drill rig *Noble Clyde Boudreaux* is conducting drilling operations in position 22° 05'.20 S 113° 10'.85 E.

Chart temporarily affected – Aus 329 – Aus 4723 (INT 723) – Aus 4725 (INT 725) – AX 04723U

1057(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Fremantle - Depth information

Former Notice - 438(T)/2011 is cancelled

Fremantle Ports Notice 8(T)/2012 (AA630746)

Available depths as at 17 October 2012:

<i>Berth</i>	<i>Metres</i>
No 1	11.0
No 2	11.0
No 4	14.6
No 5	14.6
No 6	14.6
* No 7	14.5
* No 8	14.5
* No 9	14.5
* No 10	14.5
* No 11	10.4
* No 12	10.6
C	10.4
* D	10.4
* E	10.1
* F	10.0
* G	10.2
* H	10.1

* Indicates revised entry.

Maximum draft of vessels using inner harbour berths must be obtained by contacting the Harbour Master's office.

Chart temporarily affected – Aus 113

1058(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Bunbury - Leschenault Estuary - Shoaling; dredging operations
Department of Transport WA Notice 94/2012 (AA630312 - AA630316, AA630477)

Shoaling exists inside the northern groyne of The Cut entrance channel (33° 18'.2 S 115° 40'.3 E).

Dredging operations are in progress in the area.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 115

1059(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Port Geographe - Dredging operations

Date - Until 31 December 2012

Department of Transport WA Notice 96/2012 (AA630752)

The dredge *Cooper II* is conducting dredging operations in the entrance channel to the marina (33° 37'.79 S 115° 23'.24 E).

A floating pipeline marked by special light buoys is exists from the dredge to position 38° 37'.40 S 115° 23'.73 E where the spoil will be deposited.

The dredge will display appropriate lights and shapes and will monitor VHF Ch 12, UHF Ch 15 or Marine 27 MHz Ch 90.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 116

1101(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Pipeline

Former Notice - 614(T)/2012 is cancelled

Date - Until 31 January 2013

Department of Transport WA Notice 61/2012 (AA633199)

SPV *Java Constructor* and support vessels are conducting pipe laying operations between the following positions:

20° 48'.29 S 115° 29'.12 E
20° 49'.09 S 115° 28'.88 E
20° 49'.76 S 115° 28'.99 E
20° 51'.93 S 115° 28'.73 E
20° 53'.71 S 115° 30'.36 E
21° 05'.40 S 115° 42'.21 E
21° 10'.47 S 115° 49'.49 E
21° 11'.58 S 115° 50'.64 E.

All vessels will display appropriate lights and monitor VHF Ch 16.

An anchor marked by a special light buoy, *Fl.Y.2s*, exists in positions 20° 48'.54 S 115° 29'.05 E and 20° 48'.07 S 115° 29'.18 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 62 - Aus 327 - Aus 328 - Aus 742 - Aus 743

1105(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Fremantle - Swan River - Light beacon

Date - Until 31 October 2014

Department of Transport WA (AA631861, AA831862)

A special light beacon, *Fl.Y.4s*, exists in position 32° 00'.21 S 115° 49'.67 E.

Chart temporarily affected - Aus 112 - AX 63112

1106(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Kwinana - Mooring buoy

Date - Until 30 April 2013

Fremantle Ports Notice 9(T)/2012 (AA631021)

A lit yellow mooring buoy, *Fl.Y.3s*, exists in position 32° 12'.70S 115° 45'.87E.

Chart temporarily affected - Aus 114 - Aus 117 - AX 00117T

1107(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Flinders Bay - Harbour works

Date - Until 31 August 2013

Department of Transport WA Notice 98/2012 (AA630905)

Harbour works associated with the development of a boat harbour are in progress.

An exclusion zone marked by special buoys exists in an area with radius 0.54M from point 34° 21'.20 S 115° 10'.01 E.

Special light buoys, Q, Y, exist in positions 34° 21'.00 S 115° 10'.30 E and 34° 21'.46 S 115° 10'.13 E.

Chart temporarily affected - Aus 116**1108(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Albany - Harbour works**

Date - Until 15 January 2013

Department of Transport WA Notice 103/2012 (AA634951)

Harbour works associated with the construction of a jetty are in progress in the vicinity of position 35° 01'.82 S 117° 53'.22 E.

The area will be marked by special light buoys. All vessels involved in the works will display appropriate lights and shapes and will monitor VHF Ch 16.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 109**1151(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Scott Reef - Seringapatam Reef - Drill rig**

Former Notice - 358(T)/2012 is cancelled

Australian Maritime Safety Authority Aus coast Warning 284/2012 (AA636553)

Drill rig *Transocean Legend* is conducting drilling operations in position 13° 44'.71 S 122° 07'.38 E.**Chart temporarily affected - Aus 322 - Aus 4722(INT722) - AX 00322U - AX 04722U****1154(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Rowley Shoals - Seismic survey northeastwards**

Date - Until 31 January 2013

Woodside Energy Ltd (AA637512 - AA637514)

SV *Polarcus Alima* with a 6000m towed array and support vessels *Sealink 161* and *Empress* are conducting a survey in the area bounded by the following positions:

14° 50'.0 S 119° 50'.0 E

14° 50'.0 S 120° 30'.0 E

15° 05'.0 S 120° 30'.0 E

15° 15'.0 S 120° 46'.0 E

15° 25'.0 S 120° 46'.0 E

15° 30'.0 S 120° 30'.0 E

15° 45'.0 S 120° 30'.0 E

15° 48'.0 S 120° 25'.0 E

16° 00'.0 S 120° 25'.0 E

16° 00'.0 S 119° 50'.0 E.

Chart temporarily affected - Aus 4722(INT722) - AX 04722U**1155(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - James Price Patches to Cary Patch - Scientific instruments**

Former Notice - 819(T)/2012 is cancelled

Date - Until 31 December 2012

Department of Transport WA Notice 72/2012 (AA637084), Woodside Energy Ltd (AA637083)

Scientific instruments marked by special buoys exist in positions:

17° 30'.96 S 122° 03'.01 E

17° 44'.80 S 122° 11'.22 E

17° 40'.20 S 122° 10'.74 E.

Chart temporarily affected - Aus 324

1157(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Mermaid Sound - Light beacons removed

Former Notice - 1100(T)/2012 is cancelled
Dampier Port Authority Notice 24/2012 (AA632984)

The following light beacons have been removed for refurbishment; special light buoys exist in situ:

Name	Position	Light buoy characteristic
No 11A	20° 33'.76 S 116° 44'.15 E	Fl. Y.3s
No 12A	20° 34'.32 S 116° 44'.81 E	Fl(2)Y.5s
No 13A	20° 34'.73 S 116° 45'.30 E	Fl. Y.3s.

Chart temporarily affected - Aus 58 - Aus 59**1160(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Cockburn Sound - Scientific instruments**

Date - Until 30 November 2013
Fremantle Ports Notice 12/2012 (AA637140)

Special light beacons, *Fl. Y.4s*, exist in positions 32° 12'.90 S 115° 45'.04 E and 32° 14'.41 S 115° 43'.30 E.

Subsurface scientific instruments exist on the seabed in positions 32° 10'.84 S 115° 43'.57 E and 32° 12'.09 S 115° 45'.74 E.

Chart temporarily affected - Aus 111 - Aus 114 - Aus 117 - AX 00117T**1216(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Broome - Scientific instrument**

Former Notice - 1337(T)/2011 is cancelled
Date - Until 30 January 2014
Broome Port Authority (AA640508)

A scientific instrument marked by a special light buoy, *Fl. Y.3s*, exists in position 18° 00'.06 S 122° 12'.93 E.

Chart temporarily affected – Aus 50 – Aus 51**1218(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Montebello Islands - Drill rig northwestwards**

Former Notice - 1158(T)/2012 is cancelled
MODU *Atwood Falcon* (AA640262)

Drill rig *Atwood Falcon* is conducting drilling operations in position 20° 01'.83 S 115° 12'.09 E.

Chart temporarily affected – Aus 328 – Aus 4723 (INT 723) – AX 04723U**1219(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - North West Cape - Scientific instruments northwards**

Former Notice - 363(T)/2012 is cancelled
Date - Until 15 December 2013
Fugro Survey Pty Ltd (AA639313, AA639314, AA639534)

A special light buoy, *Fl(5)Y.20s*, exists in position 20° 12'.55 S 113° 51'.40 E and a subsurface scientific instrument, 70m below the surface, exists in position 20° 12'.54 S 113° 50'.33 E.

Chart temporarily affected – Aus 328 – Aus 329**1220(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Perth - Scientific instruments westwards**

Former Notice - 792(T)/2009 is cancelled
Date - Until 20 December 2013
CSIRO (AA639564)

Subsurface scientific instruments, suspended 20m below the surface, exist in positions:

31° 37'.60 S 115° 14'.75 E
31° 38'.80 S 115° 11'.75 E
31° 41'.60 S 115° 07'.00 E
31° 42'.50 S 115° 01'.90 E
31° 43'.16 S 115° 01'.80 E
31° 46'.23 S 114° 56'.60 E
31° 59'.00 S 115° 14'.00 E
32° 03'.20 S 115° 04'.96 E.

Chart temporarily affected – Aus 334 – Aus 754 – AX 00334S – AX 00754S – AX A0754S

1221(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - King George Sound - Light altered; pilot boarding place repositioned

Date - Until 1 March 2013

Albany Port Authority Notice 1(P)/2012, 2(P)/2012 (AA639450, AA639453)

The light (35° 02'.1 S 117° 55'.1 E) has been temporarily altered to *Iso.WRG.2s 42m 11M & Fl.3s 9M* with light sectors red 298.5° - 296° (2.5°) white 296° - 292° (4°) green 292° - 289.5° (2.5°).

The pilot boarding place (35° 03'.23 S 117° 58'.48 E) has been temporarily repositioned to 35° 04'.00 S 118° 00'.00 E.

Chart temporarily affected – Aus 109 – Aus 110 – Aus 118 – Aus 759 – AX 00110S – AX 00118S**1288(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Browse Island - Drill rig northwestwards**

Former Notice - 818(T)/2012 is cancelled

Australian Maritime Safety Authority Auscoast Warning 314/2012 (AA642826)

Drill rig *Jack Bates* is conducting drilling operations in position 13° 24'.93 S 123° 18'.21 E.

Chart temporarily affected – Aus 319 – Aus 4721 (INT 721) – Aus 4722 (INT 722) – AX 00319U – AX 04721U – AX 04722U**1289(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Lynher Bank - Drill rig**

Former Notice - 868(T)/2012 is cancelled

Date - Until 31 January 2013

Murphy Australia Oil Pty Ltd (AA642597)

Drill rig *ENSCO 109* is conducting drilling operations in position 15° 15'.07 S 121° 56'.24 E.

Chart temporarily affected – Aus 322 – Aus 4722 (INT 722) – AX 00322U – AX 04722U**1291(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Depth information**

Former Notice - 913(T)/2012 is cancelled

Dampier Port Authority Notice 29/2012 (AA641675)

Available depths as at 20 November 2012:

	Metres	Remarks
East Intercourse Island	19.1	
East Intercourse Island Layby berth	19.4	
Parker Point berth 2	18.7	
Parker Point berth 3	18.8	
Parker Point berth 4	19.5	
Parker Point berth 5	19.4	
* Fuel Wharf	11.4	
Service Wharf	6.7	
Mermaid Marine Supply Base Outer Channel	5.4	
Mermaid Marine Supply Base Inner Channel	3.0	
Berthing pocket	7.2	
Dampier Cargo Wharf		9.0 Western side
Facilities Channel	9.0	Between positions 20° 36'.52 S 116° 44'.63 E and 20° 36'.74 S 116° 44'.90 E.

*Indicates new or revised entry.

Chart temporarily affected – Aus 58 – Aus 59 – Aus 60**1292(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Dampier Archipelago - Mooring buoys northwestwards**

Date - Until 15 January 2013

Cal Dive International (Australia) Pty Limited (AA641773, AA641774)

Lit mooring buoys, *Fl.Y.5s*, exist in positions 20° 07'.5 S 116° 25'.0 E and 20° 07'.5 S 116° 25'.5 E.

Chart temporarily affected – Aus 327 – Aus 741 – Aus 742

1293(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Montebello Islands - Drill rig*Former Notice* - 1156(T)/2012 is cancelled*Date* - Until 31 January 2013

Apache Energy Ltd (AA642593)

Drill rig *ENSCO 104* is conducting drilling operations in position 20° 24'.86 S 115° 43'.81 E.**Chart temporarily affected – Aus 62 – Aus 742****1294(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Montebello Islands - Drill rig northwestwards***Former Notice* - 1012(T)/2012 is cancelled

Australian Maritime Safety Authority Auscoast Warning 308/2012 (AA642257)

Drill rig *Deepwater Frontier* is conducting drilling operations in position 19° 47'.59 S 114° 38'.93 E.**Chart temporarily affected – Aus 328 – Aus 4723 (INT 723) – AX 04723U****1295(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Montebello Islands - Drill rig northeastwards***Former Notice* - 1011(T)/2012 is cancelled*Date* - Until 12 March 2013Australian Maritime Safety Authority Auscoast Warning 312/2012 (AA642565), MODU *Ocean America* (AA642548)Drill rig *Ocean America* is conducting drilling operations in position 20° 43'.31 S 114° 36'.55 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 328 – Aus 4723 (INT 723) – AX 04723U**1296(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Seismic survey westwards***Date* - Until 11 January 2013

TGS (AA628282, AA642067)

SV *Geo Caspian* with a 6000m towed array and support vessels are conducting a survey in the area bounded by the following positions:

20° 29'.92 S 114° 30'.08 E

20° 29'.92 S 114° 40'.08 E

20° 41'.11 S 114° 40'.08 E

20° 41'.11 S 114° 35'.08 E

20° 47'.57 S 114° 35'.08 E

20° 47'.57 S 114° 30'.08 E.

Chart temporarily affected – Aus 328 – Aus 4723 (INT 723) – Aus 4725 (INT 725) – AX 04723U**1297(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Exmouth Plateau - Drill rig***Former Notice* - 1102(T)/2012 is cancelled

Australian Maritime Safety Authority Auscoast Warning 300/2012 (AA641353), Chevron Australia Pty Ltd (AA642250)

Drill rig *Atwood Osprey* is conducting drilling operations in position 19° 46'.85 S 112° 48'.79 E.**Chart temporarily affected – Aus 4708 (INT 708) – Aus 4723 (INT 723) – AX 04708U – AX 04723U****1301(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Thevenard Island - Scientific instruments***Former Notice* - 1103(T)/2012 is cancelled*Date* - Until 31 December 2013

MetOcean Engineers (AA642627)

Scientific instruments marked by special light buoys, *Fl(5)Y.20s*, exist in the following positions:

21° 22'.08 S 114° 50'.93 E

21° 31'.75 S 115° 01'.82 E

21° 35'.00 S 115° 01'.28 E

21° 39'.27 S 115° 00'.04 E

21° 39'.29 S 115° 00'.09 E.

Chart temporarily affected – Aus 64 – Aus 328 – Aus 743

1302(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Kwinana - Drilling operations*Date - Until 31 January 2013*

Fremantle Ports Notice 14(T)/2012 (AA641801)

Jack-up barge *Sealift 2* and support vessels are conducting drilling operations between Stirling Channel (32° 12'.29 S 115° 44'.87 E), Kwinana Bulk Terminal berth No1 (32° 12'.48 S 115° 45'.27 E) and Kwinana Bulk Terminal berth No2 (32° 12'.65 S 115° 45'.65 E).

The barge will display appropriate lights and will monitor VHF Ch 12 and Ch 16.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 114 – Aus 117 – AX 00117T

SOUTH AUSTRALIA**720(T)/2008 AUSTRALIA - SOUTH AUSTRALIA - Port Adelaide - Shoaling***Former Notice - 240(T)/2006 is cancelled*

Department for Transport, Energy and Infrastructure Notice 38/2007 (AA346443)

Silting has resulted in width restrictions being imposed in the main channel of the Port Adelaide River between No 40 beacon (34° 47'.86 S 138° 30'.79 E) and No 41 beacon (34° 48'.52 S 138° 30'.77 E).

Mariners should avoid the western side of the main channel and navigate with caution in this part of the river as the available navigable channel is now only 90 metres wide measured from the eastern edge.

Mariners intending to transit this section should contact the Manager Marine Operations, Flinders Ports Pty Ltd on (08) 8447 0622 to confirm maximum widths.

Chart temporarily affected - Aus 137

226(T)/2011 AUSTRALIA - SOUTH AUSTRALIA - Port Adelaide - Light beacon destroyed*Former Notice - 180(T)/2011 is cancelled*

HydroSurvey Australia (AA518403)

The rear lead light beacon (34° 46'.71 S 138° 21'.59 E) has been destroyed.

Chart temporarily affected - Aus 130 - Aus 138 - Aus 781

1344(T)/2011 AUSTRALIA - SOUTH AUSTRALIA - Gulf St Vincent - Obstruction*Former Notice - 534(T)/2011 is cancelled*

Fugro LADS Corporation (AA534581)

An obstruction is reported to exist in position 34° 42'.37 S 138 15'.94 E.

Chart temporarily affected – Aus 781

71(T)/2012 AUSTRALIA - SOUTH AUSTRALIA - Wallaroo - Depth information*Former Notice - 176(T)/2009 is cancelled*

Department for Transport, Energy and Infrastructure SA Notice 38/2010 (AA515239, AA515240)

Available depths as at 24 August 2010:

	<i>Metres</i>	<i>Remarks</i>
* No 1 South Berth	8.7	Berth pocket is 313m x 36m and is 84m in from outer edge of wharf.
* No 2 North Berth	8.7	Berth pocket is 246m x 36m and is 20m in from outer edge of wharf.

* Indicates new or revised entry.

Chart temporarily affected – Aus 133

129(T)/2012 AUSTRALIA - SOUTH AUSTRALIA - Rapid Bay - Light buoy off station northwestwards

Department of Planning, Transport and Infrastructure SA Notice 4/2012 (AA578839)

The light buoy, *Fl(2)10s*, (35° 28'.82 S 138° 09'.42 E), is off station.

Chart temporarily affected – Aus 780

769(T)/2012 AUSTRALIA - SOUTH AUSTRALIA - Port Adelaide - Depth information*Former Notice - 525(T)/2012 is cancelled*

Department of Planning, Transport and Infrastructure SA Notices 13/2012, 20/2012 (AA598632, AA613629)

Available depths as at 16 July 2012:

<i>Berth</i>	<i>Metres</i>
Outer Harbor No1	11.0
Outer Harbor No2	10.5
Outer Harbor No3	10.5
Outer Harbor No4	10.5
Outer Harbor No6	13.8
Outer Harbor No8	15.7
Swinging Basin	13.7
* Inner Harbor M	10.3

* Indicates new entry

Chart temporarily affected – Aus 137**825(P)/2012 AUSTRALIA - SOUTH AUSTRALIA - Tungketta Reef - Wave energy barge***Date - On or about 24 August 2012*

Department of Planning, Transport and Infrastructure SA Notice 22/2012 (AA616028), Waverider Energy (AA617103, AA617104)

A wave energy barge, lit *F.3M*, will be established in position 33° 44'.96 S 134° 59'.94 E.**Chart which will be affected – Aus 342****1222(P)/2012 AUSTRALIA - SOUTH AUSTRALIA - Port Lincoln to Proper Bay - Navaids to be altered***Date - On or about 15 January 2013*

Department of Planning, Transport and Infrastructure SA Notice 34/2012 (AA638420)

Navaids will be altered as follows:

<i>Name</i>	<i>Position</i>	<i>New Characteristic</i>
No6	34° 41'.91 S 135° 52'.74 E	<i>Fl.R.2s</i>
Proper Bay Entrance	34° 45'.12 S 135° 53'.87 E	<i>Q.R</i>
Point Fanny	34° 43'.98 S 135° 55'.73 E	<i>Fl. 1-5s 8m 4M.</i>

Chart which will be affected – Aus 133 – Aus 134 – Aus 343 – Aus 485 – Aus 776 – AX 00343S – AX 00776S**1223(P)/2012 AUSTRALIA - SOUTH AUSTRALIA - Franklin Harbor - Navaids***Date - On or about 31 January 2013*

Department of Planning, Transport and Infrastructure SA Notice 35/2012 (AA638421)

Navaid upgrade works are in progress in Franklin Harbor (33° 43'.0 S 136° 57'.5 E)

Mariners are advised to navigate with caution in the area.

Chart which will be affected – Aus 777

1225(P)/2012 AUSTRALIA - SOUTH AUSTRALIA - Port Adelaide - Light beacons to be altered

Date - On or about 15 January 2013

Department of Planning, Transport and Infrastructure SA Notice 34/2012 (AA638420)

Light beacons will be altered as follows:

<i>Name</i>	<i>Position</i>	<i>New Characteristic</i>
No1	34° 47'.62 S 138° 27'.18 E	<i>F.Bu & Fl.4s</i>
No2	34° 47'.33 S 138° 27'.96 E	<i>F.Bu 7m & Q.5m</i>
No11	34° 47'.58 S 138° 26'.64 E	<i>Fl.G.2s</i>
No14	34° 46'.79 S 138° 28'.64 E	<i>Q.R</i>
No15	34° 47'.50 S 138° 27'.45 E	<i>F.Bu & Fl.G.2s</i>
No16	34° 46'.53 S 138° 28'.70 E	<i>Fl.R.2s</i>
No18A	34° 46'.18 S 138° 29'.02 E	<i>Fl.R.2s</i>
No18B	34° 46'.06 S 138° 29'.04 E	<i>Fl.R.2s</i>
No18C	34° 45'.96 S 138° 29'.12 E	<i>Q.R</i>
No24	34° 45'.62 S 138° 30'.07 E	<i>Q.R</i>
No26	34° 45'.62 S 138° 30'.36 E	<i>Fl.R.2s</i>
No27	34° 45'.72 S 138° 30'.31 E	<i>Fl.G.2s</i>
No28	34° 45'.66 S 138° 30'.57 E	<i>Q.R</i>
No30	34° 45'.88 S 138° 30'.96 E	<i>Fl.R.2s</i>
No31	34° 45'.95 S 138° 30'.86 E	<i>Fl.G.2s</i>
No32	34° 46'.13 S 138° 31'.11 E	<i>F.Bu & Q.R</i>
No34	34° 46'.42 S 138° 31'.11 E	<i>Fl.R.2s</i>
No35	34° 46'.42 S 138° 30'.99 E	<i>Fl.G.2s</i>
No36	34° 47'.07 S 138° 30'.95 E	<i>Fl.R.2s</i>
No37	34° 46'.68 S 138° 30'.92 E	<i>Fl.G.2s</i>
No38	34° 47'.66 S 138° 30'.81 E	<i>Fl.R.2s</i>
No39	34° 47'.40 S 138° 30'.76 E	<i>Q.G</i>
No41	34° 48'.52 S 138° 30'.76 E	<i>Fl.G.2s</i>
No42	34° 48'.52 S 138° 30'.87 E	<i>Fl.R.2s</i>
No44	34° 48'.87 S 138° 30'.88 E	<i>F.Bu & Fl.R.2s.</i>

Chart which will be affected – Aus 130 – Aus 137 – Aus 138**1303(T)/2012 AUSTRALIA - SOUTH AUSTRALIA - Great Australian Bight - Ceduna Terrace - Scientific instruments**

Former Notice - 767(T)/2012 is cancelled

Date - Until 31 December 2013

MetOcean Engineers (AA641768)

Scientific instruments exist as follows:

<i>Position</i>	<i>Remarks</i>
34° 28'.50 S 130° 42'.08 E	subsurface
34° 28'.44 S 130° 45'.35 E	<i>Fl(5)Y.20s</i>
34° 28'.39 S 130° 48'.61 E	<i>Fl(5)Y.20s</i>
33° 21'.95 S 130° 39'.26 E	subsurface.

Chart temporarily affected – Aus 4727 (INT 727)**VICTORIA****796(T)/2007 AUSTRALIA - VICTORIA - Port Phillip - South Channel - Obstruction**

Victorian Notice 103(T)/2007 (AA282029)

An obstruction marked by 3 special light buoys, *Fl. Y.3s*, exists in position 38° 18'.36 S 144° 46'.47 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 143 – Aus 158**514(T)/2008 AUSTRALIA - VICTORIA - Western Port - Phillip Island - Shoaling northwards**

Victorian Notice 64(T)/2008 (AA333884)

Shoaling, least depth *13.4 metres*, exists at position 38° 25'.53 S 145° 13'.90 E extending 100 metres into the shipping channel .

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 150 - Aus 151

942(T)/2010 AUSTRALIA - VICTORIA - Port Phillip - Geelong - Depth information*Former Notice* - 465(T)/2009 is cancelled

Victorian Regional Channels Authority (AA490300, AA490301), Victorian Notice 31(T)/2005, 104(T)/2005 (AA131863, AA203894)

Available depths as at 19 August 2010:

<i>Berth</i>	<i>Metres</i>
Bulk Grain Pier 1	9.0
Bulk Grain Pier 2	11.0
Point Wilson Jetty North	8.6
Point Henry Pier Alcoa	11.6

* Indicates new or revised entry.

A 8.1m shoal exists in position 38° 07'.336 S 144° 33'.131 E.

Chart temporarily affected - Aus 153 - Aus 157**1100(T)/2010 AUSTRALIA - VICTORIA - Port Phillip - Port Melbourne - Princes Pier - Harbour works***Former Notice* - 223(T)/2008 is cancelled*Date* - Until 30 June 2011

Victorian Notice 94(T)/2010 (AA496795)

Harbour works associated with the redevelopment of Princes Pier (37°50'.70S 144°55'.54 E) are in progress.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 154 - Aus 155**1291(T)/2010 AUSTRALIA - VICTORIA - Ninety Mile Beach - Obstructions***Former Notice* - 458(T)/2007 is cancelled

Victorian Notice 51(T)/2007 (AA242065)

Suspended well heads exists within a 300m radius of position 38° 37'.65 S 146° 53'.75 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 357**1354(T)/2010 AUSTRALIA - VICTORIA - Corner Inlet - Shoaling***Former Notice* - 1213(T)/2008 is cancelled

Victorian Notice 128(T)/2008 (AA368471)

Shoaling exists along the northern bank of the main entrance in the vicinity of position 38° 50'.9 S 146° 34'.8 E (WGS84 datum).

Mariners are advised to navigate along the Lighthouse Point directional light centreline of 277° when transiting the area.

Chart temporarily affected - Aus 181 - Aus 802**77(T)/2011 AUSTRALIA - VICTORIA - Port Phillip - Port Melbourne - Appleton Dock - Harbour works***Date* - Until 31 August 2011

Victorian Notice 2(T)/2011 (AA512223)

Works associated with the remediation of berths B to D are in progress (37° 49'.07 S 144° 55'.20 E).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 154**448(T)/2011 AUSTRALIA - BASS STRAIT - Platforms; pipeline***Former Notice* - 1424(T)/2010 is cancelled*Date* - Until 31 July 2012

McDermott Australia Pty Ltd (AA527057)

DB30, Emerald Sea, Miclyn Endurance and support vessels are conducting works to platforms and pipelines in the area bounded by 38° 11'.0 S to 38° 15'.0 S and 148° 00'.0 E to 148° 36'.0. Vessels are advised not to enter the area and a 2M safety zone exists around the vessels involved in the works.

Vessels can be contacted on VHF Ch 16.

Chart temporarily affected - Aus 357 - Aus 487

723(T)/2011 AUSTRALIA - VICTORIA - Port Phillip - Great Ship Channel - Shoaling
Victorian Notice 89(T)/2011 (AA543561)

Shoaling, with a least depth of 16.7m, exists in position 38° 18'.04 S 144° 37'.69 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 144 – Aus 158

839(T)/2011 AUSTRALIA - VICTORIA - Corner Inlet - Bentley Point - Light beacon destroyed
Victorian Notice 100/2011 (AA549261)

The light beacon, *Fl.G.3s 7M* (38° 46'.52 S 146° 29'.51 E (WGS84 datum)), has been destroyed.

Chart temporarily affected – Aus 181

991(T)/2011 AUSTRALIA - VICTORIA - Port Campbell - Lights unlit

Date - Until 18 October 2011

Victorian Notice 113(T)/2011 (AA556905)

The lights, *Q.Bu.7m 4M* (38° 37'.27 S 142° 59'.48E) and *Iso.Bu.4s 12m 4M* (38° 37'.19 S 142° 59'.60E) are unlit.

Chart temporarily affected – Aus 141

1346(T)/2011 AUSTRALIA - VICTORIA - Port Phillip - South Channel - Exclusion zones

Victorian Notice 146(T)/2011 (AA571787)

As a result of shoaling, exclusion zones exists in the areas bounded by the following positions:

38° 17'.50 S 144° 39'.08 E

38° 17'.50 S 144° 39'.45 E

38° 17'.56 S 144° 39'.45 E

38° 17'.55 S 144° 39'.08 E,

and

38° 17'.65 S 144° 41'.13 E

38° 17'.88 S 144° 42'.27 E

38° 17'.90 S 144° 42'.27 E

38° 17'.67 S 144° 41'.13 E,

and

38° 17'.99 S 144° 42'.65 E

38° 18'.01 S 144° 42'.72 E

38° 18'.02 S 144° 42'.72 E

38° 18'.00 S 144° 42'.65 E,

and

38° 17'.80 S 144° 42'.85 E

38° 18'.14 S 144° 44'.52 E

38° 18'.17 S 144° 44'.51 E

38° 17'.83 S 144° 42'.84 E,

and

38° 18'.18 S 144° 45'.07 E

38° 18'.37 S 144° 46'.35 E

38° 18'.38 S 144° 46'.35 E

38° 18'.19 S 144° 45'.07 E.

Chart temporarily affected – Aus 144 – Aus 158

76(T)/2012 AUSTRALIA - VICTORIA - Port Phillip - South Channel - Scientific instruments

Victorian Notice 156(T)/2011 (AA575139)

Special light buoys, *Fl.Y.2s*, exist in positions 38° 20'.15 S 144° 52'.78 E and 38° 20'.12 S 144° 54'.54 E.

Chart temporarily affected – Aus 143 – Aus 158

82(T)/2012 AUSTRALIA - VICTORIA - Port Albert - Shoaling

Former Notice - 800(T)/2009 is cancelled
Victorian Notice 157(T)/2011 (AA575145)

Shoaling exists between positions 38° 45'.13 S 146° 42'.66 E and 38° 44'.73 S 146° 40'.32 E (WGS84 datum).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 181 – Aus 182

131(T)/2012 AUSTRALIA - VICTORIA - Anderson Inlet - Shoaling

Former Notice - 1300(T)/2009 is cancelled
Victorian Notice 8(T)/2012 (AA577182)

Shoaling exists in the outer entrance channel of the Anderson Inlet entrance bar (38° 39'.0 S 145° 43'.0 E).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 801

132(T)/2012 AUSTRALIA - VICTORIA - Port Albert - Light unlit

Victorian Notice 11(T)/2012 (AA578170)

The light, *Oc.3s 12m 11M* (38° 43'.62 S 146° 39'.00E (WGS84 datum)), is unlit.

Chart temporarily affected – Aus 181 – Aus 357

174(T)/2012 AUSTRALIA - VICTORIA - Corner Inlet - Franklin Channel - Mooring buoy

Former Notice - 81(T)/2012 is cancelled
Victorian Notice 27(T)/2012 (AA581936)

Lit mooring buoy, *Fl. Y.5s*, exists in position 38° 45'.64S 146° 24'.55E (WGS84 datum).

Chart temporarily affected - Aus 181

271(T)/2012 AUSTRALIA - VICTORIA - Port Phillip - St Kilda - Shoaling

Victorian Notice 52(T)/2012 (AA587715)

Shoaling with a least depth of *-0.5m* exists at St Kilda Pier in position 37° 51'.87 S 144° 58'.07 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 155

365(T)/2012 AUSTRALIA - VICTORIA - Port Phillip - Point Nepean - Wreck

MV *Lady Cheryl*, Victorian Notices 66(T)/2012, 69(T)/2012 (AA590836, AA592525, AA592526)

A wreck marked by a special light buoy, *VQ(3)Y.5s*, exists in position 38° 17'.90 S 144° 39'.25 E.

A 50m exclusion zone exists around the wreck and vessels involved in the salvage operations.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 143 - Aus 144 - Aus 158

479(T)/2012 AUSTRALIA - VICTORIA - Toora Channel - Light beacon destroyed; light buoy established

Victorian Notice 85(T)/2012 (AA596048)

The No15 light beacon (38° 42'.47 S 146° 21'.45 E) has been destroyed; a unlit starboard buoy, exists in situ.

Chart temporarily affected – Aus 181

572(T)/2012 AUSTRALIA - VICTORIA - Otway Basin - Drilling operations

Date - Until 31 March 2013

Former Notice - 212(T)/2012 is cancelled

Origin Energy (AA600494)

MODU *Stena Clyde* is conducting drilling operations in position 39° 06'.50 S 142° 57'.10 E. A 500m safety zone and 2.5M cautionary zone exist around the vessel.

The vessel will display AIS and Racon (D).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 349 – Aus 787**579(T)/2012 AUSTRALIA - VICTORIA – Barry Beach - Shoaling**

Former Notice - 1301(T)/2009 is cancelled

Victorian Notice 88/2012 (AA602669)

Shoaling, with a least depth of 5.2m, exists in the Barry Beach Channel (38° 43'.00 S 146° 22'.77 E).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 182**772(T)/2012 AUSTRALIA - VICTORIA - Port Phillip - Werribee South - Harbour works**

Date - Until 30 January 2014

Victorian Notice 106(T)/2012 (AA613718)

Harbour works associated with the construction of a new marina are in progress in an area bounded by the following:

<i>Position</i>	<i>Remarks</i>
37° 58'.29 S 144° 42'.27 E	special conical buoy, without topmark
37° 58'.31 S 144° 42'.36 E	special conical light buoy, <i>Fl. Y.7s</i> , with topmark
37° 58'.32 S 144° 42'.46 E	special conical buoy, without topmark
37° 58'.28 S 144° 42'.55 E	special conical light buoy, <i>Fl. Y.7s</i> , with topmark
37° 58'.23 S 144° 42'.63 E	special conical buoy, without topmark
37° 58'.17 S 144° 42'.69 E	special conical light buoy, <i>Fl. Y.7s</i> , with topmark
37° 58'.10 S 144° 42'.75 E	special conical buoy, without topmark
37° 58'.04 S 144° 42'.81 E	special conical light buoy, <i>Fl. Y.7s</i> , with topmark
37° 57'.97 S 144° 42'.86 E	special conical buoy, without topmark
37° 57'.89 S 144° 42'.85 E	special conical light buoy, <i>Fl. Y.7s</i> , with topmark
37° 57'.81 S 144° 42'.82 E	special conical buoy, without topmark.

All hazards to navigation will display appropriate lights.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 143 – Aus 155**826(T)/2012 AUSTRALIA - VICTORIA - Cape Duquesne to Port Campbell - Scientific instruments**

Former Notice - 128(T)/2011 is cancelled

Date - Until 31 January 2013

Cardno (AA617026)

Scientific instruments marked by special light buoys, *Fl(5)Y.20s*, exist in positions 38° 21'.75 S 141° 14'.47 E and 38° 43'.06 S 142° 46'.79 E.

Chart temporarily affected – Aus 348 – Aus 349 – Aus 787

1063(T)/2012 AUSTRALIA - VICTORIA - Port Phillip - South Channel - Shoaling*Former Notice - 963(T)/2012 is cancelled*

Victorian Notice 141(T)/2012 (AA630248)

Virtual AIS exist as follows:

<i>Identification message</i>	<i>Position</i>
TB1	38° 18'.11 S 144° 43'.86 E
TB2	38° 18'.22 S 144° 44'.39 E.

Shoaling with a least depth of 15.2m exists in the vicinity and north of the virtual buoys. Deep draught vessels should pass to the south of the buoys.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 144 – Aus 158**1064(T)/2012 AUSTRALIA - VICTORIA - Port Phillip - Williamstown - Harbour works***Date - Until 17 November 2012*

Victorian Notice 135(T)/2012 (AA630011)

Harbour works associated with the rehabilitation of Ann St Pier (37° 51'.63 S 144° 54'.59 E) including the demolition of the pier end are in progress.

The light *F.G* (37° 51'.58 S 144° 54'.61 E) has been repositioned to 37° 51'.59 S 144° 54'.61 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 154**1229(T)/2012 AUSTRALIA - VICTORIA - Port Phillip - Wilson Spit - Light beacon destroyed**

Victorian Notice 170/2012 (AA640540)

The starboard light beacon, *Fl.G.3s* (38° 06'.68 S 144° 30'.98 E), has been destroyed; a starboard light buoy, *Fl.G.3s*, exists in situ.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 157**TASMANIA****91(T)/2010 AUSTRALIA - TASMANIA - Georges Bay - Wreck***Former Notice - 1204(T)/2009 is cancelled*

Marine and Safety Tasmania Notice M3/2010 (AA447779)

A stranded wreck exists in position 41° 16'.24 S 148° 20'.07 E, with a floating line marked by a white poly-float leading to an anchor in position 41° 16'.20 S 148° 20'.13 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 169

1291(T)/2011 AUSTRALIA - TASMANIA - Adventure Bay to Pitt Water - Scientific instruments

Date - Until 30 March 2013

Marine and Safety Tasmania Notice M150/2011 (AA570022)

Subsurface scientific instruments exist in the following positions:

43° 31'.43 S 147° 17'.77 E	43° 27'.49 S 147° 13'.39 E
43° 18'.05 S 147° 23'.62 E	43° 14'.53 S 147° 47'.71 E
43° 06'.26 S 147° 41'.81 E	43° 05'.12 S 147° 29'.17 E
43° 02'.37 S 147° 28'.49 E	42° 57'.96 S 147° 33'.29 E
42° 57'.85 S 147° 33'.84 E	42° 57'.73 S 147° 34'.44 E
42° 57'.62 S 147° 34'.99 E	42° 57'.49 S 147° 35'.60 E
42° 57'.39 S 147° 36'.19 E	42° 57'.26 S 147° 36'.79 E
42° 57'.15 S 147° 37'.41 E	42° 57'.14 S 147° 39'.22 E
42° 57'.04 S 147° 38'.01 E	42° 56'.98 S 147° 39'.67 E
42° 56'.42 S 147° 32'.59 E	42° 55'.81 S 147° 40'.74 E
42° 55'.80 S 147° 34'.87 E	42° 55'.42 S 147° 36'.65 E
42° 55'.36 S 147° 40'.76 E	42° 55'.12 S 147° 31'.82 E
42° 54'.92 S 147° 40'.78 E	42° 54'.64 S 147° 33'.74 E
42° 54'.47 S 147° 40'.80 E	42° 54'.33 S 147° 30'.50 E
42° 54'.19 S 147° 35'.44 E	42° 53'.86 S 147° 37'.19 E
42° 53'.71 S 147° 32'.59 E	42° 52'.87 S 147° 34'.22 E
42° 52'.60 S 147° 36'.25 E	42° 52'.35 S 147° 32'.09 E
42° 53'.23 S 147° 31'.15 E	42° 51'.82 S 147° 30'.91 E
42° 51'.80 S 147° 33'.36 E	42° 51'.70 S 147° 34'.84 E
42° 51'.40 S 147° 36'.01 E	42° 51'.06 S 147° 32'.08 E
42° 50'.90 S 147° 36'.92 E	42° 50'.73 S 147° 35'.11 E
42° 50'.69 S 147° 33'.58 E	42° 49'.79 S 147° 36'.18 E
42° 49'.17 S 147° 34'.70 E	42° 48'.72 S 147° 32'.46 E
42° 48'.72 S 147° 34'.04 E	42° 48'.43 S 147° 29'.38 E
42° 48'.43 S 147° 29'.59 E	42° 48'.43 S 147° 29'.80 E
42° 48'.43 S 147° 30'.02 E	42° 48'.41 S 147° 33'.19 E
42° 48'.29 S 147° 31'.42 E	42° 48'.25 S 147° 29'.27 E
42° 48'.25 S 147° 29'.48 E	42° 48'.25 S 147° 29'.69 E
42° 48'.25 S 147° 29'.91 E	42° 48'.25 S 147° 30'.13 E
42° 48'.07 S 147° 29'.69 E	42° 48'.07 S 147° 29'.91 E
42° 48'.07 S 147° 30'.13 E	42° 47'.99 S 147° 28'.66 E
42° 47'.87 S 147° 29'.80 E	42° 47'.87 S 147° 30'.02 E

Chart temporarily affected - Aus 171 - Aus 173 - Aus 796**1292(T)/2011 AUSTRALIA - TASMANIA - Flinders Island - Lady Barron - Light unreliable**

Date - Until 20 December 2011

Marine and Safety Tasmania Notice M144/2011 (AA569730)

The light, *F.WRG.48m 10M* (40° 12'.45 S 148° 14.76 E), is unreliable.**Chart temporarily affected - Aus 179 - Aus 800****130(T)/2012 AUSTRALIA - TASMANIA - Wynyard - Harbour works**

Date - Until 31 May 2012

Marine and Safety Tasmania Notice M7/2011 (AA578071)

Works associated with the demolition and reconstruction of the wharf (40° 59'.27 S 145° 44'.00 E) are in progress.

Mariners are advised to navigate to the north of the three special light buoys, *Q.Y.*, established at the work site and to navigate with caution in the area.**Chart temporarily affected – Aus 178****175(T)/2012 AUSTRALIA - TASMAN SEA - Tasman Basin - Light buoy withdrawn***Former Notice - 84(T)/2012 is cancelled*

Australian Bureau of Meteorology (AA581659)

The light buoy, *Fl.Y.2s*, (44° 51'.0 S 161° 44'.0 E), has been temporarily withdrawn.**Chart temporarily affected - Aus 4601 (INT 601)**

526(T)/2012 AUSTRALIA - TASMANIA - River Derwent - Tramere Point - Scientific instrument

Date - Until 30 June 2013

Marine and Safety Tasmania Notice 48/2012

A scientific instrument marked by a special conical buoy exist in position, 42° 55'.40 S 147° 24'.57 E.

Chart temporarily affected – Aus 171 – Aus 796**527(T)/2012 AUSTRALIA - TASMANIA - Launceston - Pile driving**

Date - Until 9 July 2012

Marine and Safety Tasmania Notice 51/2012 (AA598382)

A pile driving barge is currently operating in North Esk River (41° 26'.02 S 147° 07'.77 E).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 168**576(T)/2012 AUSTRALIA - TASMANIA - Frederick Henry Bay - Scientific instruments**

Former Notice - 1229(T)/2011 is cancelled

Date - Until 20 September 2013

Marine and Safety Tasmania (AA602526)

Scientific instruments marked by special conical light buoys exist as follows:

<i>Position</i>	<i>Characteristic</i>
42° 56'.2 S 147° 37'.2 E	<i>Iso.4s</i>
42° 58'.2 S 147° 34'.0 E	<i>Oc.3s.</i>

Chart temporarily affected – Aus 171 – Aus 796**1061(T)/2012 AUSTRALIA - TASMANIA - River Derwent - Risdon Cove - Buoy**

Date - Until 1 April 2013

Marine and Safety Tasmania Notice 81/2012 (AA629996)

An orange buoy exists in position 42° 49'.11 S 147° 18'.83 E.

Chart temporarily affected – Aus 172**1062(T)/2012 AUSTRALIA - TASMANIA - Cape Barren Island - Scientific instruments**

Date - Until 30 November 2013

Marine and Safety Tasmania Notice 95/2012 (AA630000)

Subsurface scientific instruments exist on the seabed in the following positions:

40° 26'.38 S 148° 28'.97 E	40° 26'.51 S 148° 29'.51 E
40° 26'.65 S 148° 30'.05 E	40° 26'.78 S 148° 30'.59 E

Subsurface scientific instruments exist 30m below the surface in the following positions:

40° 26'.91 S 148° 31'.12 E	40° 27'.05 S 148° 31'.66 E
40° 27'.18 S 148° 32'.20 E	40° 27'.31 S 148° 32'.74 E
40° 27'.44 S 148° 33'.27 E	40° 27'.58 S 148° 33'.81 E
40° 27'.71 S 148° 34'.35 E	40° 27'.84 S 148° 34'.89 E
40° 27'.97 S 148° 35'.43 E	40° 28'.11 S 148° 35'.96 E
40° 28'.24 S 148° 36'.50 E	40° 28'.37 S 148° 37'.04 E
40° 28'.50 S 148° 37'.58 E	40° 28'.64 S 148° 38'.12 E
40° 28'.77 S 148° 38'.65 E	40° 28'.90 S 148° 39'.19 E
40° 29'.03 S 148° 39'.73 E	40° 29'.16 S 148° 40'.27 E
40° 29'.30 S 148° 40'.81 E	40° 29'.43 S 148° 41'.35 E
40° 29'.56 S 148° 41'.88 E	40° 29'.69 S 148° 42'.42 E
40° 29'.82 S 148° 42'.96 E	40° 29'.96 S 148° 43'.50 E
40° 30'.09 S 148° 44'.04 E	40° 30'.22 S 148° 44'.58 E
40° 30'.35 S 148° 45'.12 E	40° 30'.48 S 148° 45'.65 E
40° 30'.61 S 148° 46'.19 E	40° 30'.75 S 148° 46'.73 E
40° 30'.88 S 148° 47'.27 E	40° 31'.01 S 148° 47'.81 E
40° 31'.14 S 148° 48'.35 E	40° 31'.27 S 148° 48'.89 E
40° 31'.40 S 148° 49'.40 E	40° 31'.52 S 148° 49'.90 E.

Chart temporarily affected – Aus 487 – Aus 798 – Aus 800

1110(T)/2012 AUSTRALIA - TASMANIA - Sugarloaf Rock to De Witt Island - Scientific instruments*Date* - Until 31 January 2013

Marine and Safety Tasmania Notice M95-12 (AA632287 - AA632290)

Scientific instruments marked by orange buoys exist in the following positions:

43° 35'.73 S 146° 23'.60 E	43° 27'.50 S 145° 57'.90 E
43° 35'.70 S 146° 23'.70 E	43° 27'.48 S 145° 57'.98 E
43° 35'.55 S 146° 24'.11 E	43° 26'.72 S 145° 56'.32 E
43° 35'.52 S 146° 24'.22 E	43° 26'.71 S 145° 56'.42 E
43° 39'.03 S 146° 26'.08 E	43° 27'.60 S 145° 54'.59 E
43° 37'.08 S 146° 26'.21 E	43° 28'.26 S 145° 54'.59 E
43° 38'.99 S 146° 26'.45 E	43° 28'.26 S 145° 55'.13 E
43° 39'.02 S 146° 26'.58 E	43° 28'.19 S 145° 55'.24 E.

Chart temporarily affected - Aus 793 - Aus 794**1161(T)/2012 AUSTRALIA - TASMANIA - D'Entrecasteaux Channel - Ventenat Point - Beacon destroyed**

Marine and Safety Tasmania Notice M105/2012 (AA636678)

The north cardinal beacon (43° 20'.86 S 147° 11'.31 E) has been destroyed; a special buoy exists in situ.

Chart temporarily affected - Aus 173**1228(T)/2012 AUSTRALIA - TASMANIA - Dorman Point - Scientific instrument***Former Notice* - 419(T)/2012 is cancelled*Date* - Until 30 April 2013

Marine and Safety Tasmania Notice 44/2012 (AA593987, AA640514)

A scientific instrument marked by special conical buoy exists in position 42° 54'.00 S 147° 44'.49 E

Chart temporarily affected – Aus 171 – Aus 796**PAPUA NEW GUINEA and SOUTH PACIFIC****404(T)/2008 PAPUA NEW GUINEA - Port Moresby - Fish aggregation device southwards***Former Notice* - 665(T)/2006 is cancelled

Department of Transport and Civil Aviation PNG Notice 8/2004 (AA84295)

A fish aggregation device, marked by a buoy, exists in position 9° 44'.5 S 147° 17'.5 E (datum unknown).

Chart temporarily affected - Aus 379 - Aus 505 - Aus 4620 (INT 620)**66(T)/2011 PAPUA NEW GUINEA - Caution Bay - Harbour works***Date* - Until 31 January 2013

National Maritime Safety Authority PNG Notice 46/2010 (AA511164)

Works associated with the construction of a jetty are in progress within an area bounded by the following positions:

9° 20'.01 S 146° 58'.80 E
9° 21'.27 S 146° 59'.22 E
9° 21'.21 S 146° 59'.84 E
9° 20'.58 S 146° 59'.61 E
9° 20'.50 S 147° 00'.43 E
9° 19'.97 S 147° 00'.23 E.

A 2M exclusion zone exists from the outside this area and a 0.25M exclusion zone exists around all vessels associated with the works.

All hazards to navigation will display appropriate lights.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 379

283(T)/2011 AUSTRALIA - South Fiji - Light buoy withdrawn

Former Notice - 134(T)/2011 is cancelled
 Australian Bureau of Meteorology (AA521187)

The light buoy, *Fl.Y.2s* (26° 04'.0 S 176° 00'.0 E), has been temporarily withdrawn.

Chart temporarily affected – Aus 4602 (INT 602)

709(P)/2011 PAPUA NEW GUINEA - Eastern Fields - Reef delineation

Date - On or about 15 July 2011
 LADS Flight (AA543779)

Mariners are advised that a survey being undertaken within the Eastern Fields region (10° 05'.0 S 145° 35'.0 E) indicates that the dangers are not in their charted positions. The whole reef system is out of position by up to 1000 metres in a non-uniform direction.

Chart which will be affected – Aus 377 – Aus 379 – AX 60377

983(T)/2011 PAPUA NEW GUINEA - Gulf of Papua - Racon

National Maritime Safety Authority PNG Notice 36/2011 (AA557392)

The racon (8° 03'.86 S 144° 33'.63 E) is temporarily discontinued.

Chart temporarily affected – Aus 378 – Aus 502 – Aus 4620 (INT 620) – Aus 4622 (INT 622) – AX 4620F

1286(T)/2011 PAPUA NEW GUINEA - Bougainville Island - Lights unlit

Former Notice - 1159(T)/2011 is cancelled
 National Maritime Safety Authority PNG Notices 22/2011, 46/2011, 52/2011 (AA535709, AA565338, AA569723)

The following lights are unlit:

<i>Location</i>	<i>Position</i>
Otua Island (K4886)	6° 27'.50 S 155° 58'.40 E
Takanupe Island (K4884.4)	6° 08'.86 S 155° 34'.31 E
Dokome Point (K4885.2)	6° 10'.91 S 155° 32'.94 E
Kerekerina Point (K4885)	6° 11'.30 S 155° 33'.56 E
Arawa Bay (K4884.6)	6° 13'.74 S 155° 34'.37 E
Banaru Reef (K4885.7)	6° 08'.30 S 155° 39'.03 E
Moto Reef (K4885.8)	6° 08'.77 S 155° 39'.52 E
Wogoromodo Reef (K4885.6)	6° 10'.12 S 155° 39'.03 E
Cape Laverdy (K4884)	5° 32'.49 S 155° 03'.88 E

Chart temporarily affected - Aus 399 - Aus 683 - Aus 4622 (INT 622)

564(T)/2012 PAPUA NEW GUINEA - Bounganville Island - Buka passage - Wrecks

National Maritime Safety Authority PNG Notice 25(T)/2012 (AA600496)

Stranded wrecks exist in the following positions

5° 26'.8 S 154° 39'.4 E
 5° 26'.9 S 154° 39'.0 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 684

609(P)/2012 PAPUA NEW GUINEA - Caution Bay - Nav aids to be established

Date - On or about 1 November 2012

ExxonMobil Australia (AA604216, AA604217)

Light beacons and light buoys will be established as follows:

Name	Position	Characteristic	Remarks
R1	9° 17'.90 S 146° 55'.75 E	Fl.R.3s	
R3	9° 18'.10 S 146° 57'.26 E	Fl.R.3s	
R5	9° 18'.43 S 146° 58'.35 E	Q.R	
R7	9° 19'.12 S 146° 58'.78 E	Fl.R.3s	
R9	9° 19'.62 S 146° 58'.94 E	Fl.R.3s	
G2	9° 18'.31 S 146° 55'.72 E	Fl.G.3s	
G4	9° 18'.54 S 146° 57'.25 E	Fl.G.3s	
G6	9° 18'.82 S 146° 58'.10 E	Fl.G.3s	
G8	9° 19'.34 S 146° 58'.45 E	Fl.G.3s	
G10	9° 19'.76 S 146° 58'.57 E	Fl.G.3s	
Y11	9° 20'.07 S 146° 59'.10 E	Fl.Y.3s	special buoy
Y12	9° 20'.15 S 146° 58'.64 E	Fl.Y.3s	special buoy
TB1	9° 20'.40 S 146° 58'.72 E	Q.Y	special buoy
TB2	9° 20'.71 S 146° 59'.01 E	Q.Y	special buoy
RL1	9° 18'.58 S 146° 59'.47 E	Iso.4s	
RL2	9° 17'.98 S 146° 58'.19 E	F.Bu	
FL1	9° 18'.54 S 146° 59'.16 E	Q	
FL2	9° 18'.05 S 146° 58'.21 E	F.Bu	

Chart which will be affected – Aus 379**873(T)/2012 PACIFIC OCEAN - Scientific instruments**

Former Notice - 829(T)/2012 is cancelled

JAMSTEC (AA620015, AA620016)

Scientific instruments, Triton buoys, exist as follows:

Number	Position
4	0° 00'.97 S 156° 02'.50 E
5	2° 01'.03 S 155° 57'.52 E
6	5° 02'.01 S 156° 01'.54 E
9	0° 03'.54 S 147° 00'.68 E.

Chart temporarily affected - Aus 399 - Aus 4622 (INT 622)**904(T)/2012 PAPUA NEW GUINEA - Lae - Dredging operations**

Date - Until 31 January 2014

PNG Ports Corporation Ltd (AA622596 - AA622602)

Dredges *Tianji* and *Jinhangjun 406* and support vessels are conducting dredging operations associated with the new harbour development in an area bounded by the following:

Position	Remarks
6° 43'.81 S 146° 58'.15 E	
6° 43'.57 S 146° 58'.83 E	
6° 44'.21 S 146° 58'.84 E	
6° 44'.24 S 146° 58'.92 E	
6° 44'.53 S 146° 58'.86 E	special pillar light buoy, Q.Y
6° 44'.83 S 146° 59'.06 E	special pillar light buoy, Q.Y
6° 44'.83 S 146° 58'.51 E	special pillar light buoy, Q.Y
6° 44'.35 S 146° 58'.56 E.	

An exclusion zone exists within this area.

A lit floating pipeline exists between positions 6° 44'.54 S 146° 58'.84 E and 6° 44'.22 S 146° 58'.69 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 643

1275(P)/2012 PAPUA NEW GUINEA - Aroma Passage to Dedele Point - Light beacons established
National Maritime Safety Authority PNG (AA641752 - AA641754)

Light beacons exist as follows:

<i>Position</i>	<i>Characteristic</i>
10° 10'.65 S 147° 59'.95 E	<i>Fl.G.1-5s</i>
10° 09'.84 S 148° 00'.33 E	<i>Fl.R.3s</i>
10° 09'.58 S 148° 00'.92 E	<i>Fl.G.6s</i>
10° 10'.95 S 148° 08'.30 E	<i>Fl.R.2-5s</i>
10° 08'.15 S 148° 08'.87 E	<i>Fl.R.4s</i>
10° 08'.44 S 148° 11'.05 E	<i>Fl.G.2s</i>
10° 11'.13 S 148° 11'.79 E	<i>Q.G</i>
10° 11'.20 S 148° 15'.09 E	<i>Fl.R.3s</i>
10° 11'.78 S 148° 16'.89 E	<i>Fl.G.5s</i>
10° 11'.05 S 148° 17'.72 E	<i>Fl.G.2s</i>
10° 13'.21 S 148° 20'.44 E	<i>Q.G</i>
10° 13'.55 S 148° 37'.48 E	<i>Fl.R.2-5s</i>
10° 14'.40 S 148° 39'.86 E	<i>Fl.G.3s</i>
10° 14'.31 S 148° 40'.26 E	<i>Q.R</i>
10° 14'.22 S 148° 41'.81 E	<i>Fl.6s</i>
10° 17'.55 S 148° 41'.88 E	<i>Fl.G.6s</i>
10° 15'.75 S 148° 42'.33 E	<i>Fl.G.2s</i>
10° 15'.22 S 148° 43'.74 E	<i>Fl.G.4s</i>
10° 14'.59 S 148° 44'.29 E	<i>Fl(5)G.20s.</i>

Chart which will be affected – Aus 506 – Aus 623

1276(P)/2012 PAPUA NEW GUINEA - Samarai Island - Light beacon established
National Maritime Safety Authority PNG (AA641752 - AA641754)

A starboard lateral light beacon, Q.G, exists in position 10° 36'.67 S 150° 39'.60 E.

Chart which will be affected – Aus 624 – Aus 625

1277(P)/2012 PAPUA NEW GUINEA - Alotau - Sanderson Bay - Light beacons established
National Maritime Safety Authority PNG (AA641752 - AA641754)

Light beacons exist as follows:

<i>Position</i>	<i>Characteristic</i>
10° 18'.58 S 150° 27'.20 E	<i>Q.G</i>
10° 18'.58 S 150° 27'.23 E	<i>Q.R.</i>

Chart which will be affected – Aus 624

1278(P)/2012 PAPUA NEW GUINEA - Meimeira Island - Light beacons established
National Maritime Safety Authority PNG (AA641752 - AA641754)

Light beacons exist as follows:

<i>Position</i>	<i>Characteristic</i>
10° 13'.14 S 150° 52'.67 E	<i>Q.R</i>
10° 13'.69 S 150° 52'.77 E	<i>Q.R.</i>

Chart which will be affected – Aus 628

1279(P)/2012 PAPUA NEW GUINEA - Kwaipan Bay to Ginada Island - Light beacons established
National Maritime Safety Authority PNG (AA641752 - AA641754)

Light beacons exist as follows:

<i>Position</i>	<i>Characteristic</i>
9° 13'.84 S 152° 25'.67 E	<i>Iso.G.5s</i>
9° 09'.69 S 152° 35'.21 E	<i>Fl.G.1-5s</i>
9° 07'.30 S 152° 38'.78 E	<i>Fl.R.4s</i>
9° 07'.21 S 152° 39'.09 E	<i>Fl.R.2s</i>
9° 07'.32 S 152° 39'.09 E	<i>Fl.G.2s</i>
9° 06'.72 S 152° 39'.63 E	<i>Fl.R.3s</i>
9° 06'.55 S 152° 39'.86 E	<i>Fl.G.1-5s</i>
9° 06'.37 S 152° 39'.90 E	<i>Q.R</i>
9° 06'.48 S 152° 39'.95 E	<i>Q.G.</i>

Chart which will be affected – Aus 383 – Aus 514 – Aus 515 – Aus 635

1280(P)/2012 PAPUA NEW GUINEA - Huon Gulf - Salamaua Harbour to Lae - Light beacons established
National Maritime Safety Authority PNG (AA641752 - AA641754)

Light beacons exist as follows:

<i>Position</i>	<i>Characteristic</i>
6° 46'.02 S 146° 58'.34 E	<i>Fl.R.4s</i>
7° 02'.08 S 147° 03'.05 E	<i>Fl.4s.</i>

Chart which will be affected – Aus 523 – Aus 643

1281(P)/2012 PAPUA NEW GUINEA - Gazelle Peninsula - Lassul Bay to Rarende Angala Reef - Light beacons established
National Maritime Safety Authority PNG (AA641752 - AA641754)

Light beacons will be established as follows:

<i>Position</i>	<i>Characteristic</i>
4° 13'.33 S 151° 27'.63 E	<i>Fl.R.5s</i>
4° 10'.49 S 151° 36'.89 E	<i>Fl.G.4s</i>
4° 10'.83 S 151° 41'.45 E	<i>Fl.R.4s</i>
4° 10'.97 S 151° 43'.29 E	<i>Fl.R.2s</i>
4° 11'.55 S 151° 56'.40 E	<i>Fl.15s</i>
4° 11'.74 S 151° 44'.88 E	<i>Fl.G.2s.</i>

Chart which will be affected – Aus 545 – Aus 546

1282(P)/2012 PAPUA NEW GUINEA - Kimbe - Light beacons established
National Maritime Safety Authority PNG (AA641752 - AA641754)

Light beacons will be established as follows:

<i>Position</i>	<i>Characteristic</i>
5° 32'.12 S 150° 08'.35 E	<i>Fl.R.6s</i>
5° 32'.06 S 150° 08'.29 E	<i>Q.G</i>
5° 32'.13 S 150° 08'.13 E	<i>Fl.G.3s</i>
5° 32'.45 S 150° 08'.78 E	<i>Fl.G.2s</i>
5° 32'.68 S 150° 09'.00 E	<i>Fl.R.3s</i>
5° 32'.71 S 150° 08'.93 E	<i>Fl.G.4s</i>
5° 31'.55 S 150° 09'.42 E	<i>Fl.4s</i>
5° 31'.33 S 150° 09'.38 E	<i>Fl.G.1-5s</i>
5° 31'.38 S 150° 09'.78 E	<i>Fl.R.1-5s</i>
5° 31'.46 S 150° 10'.06 E	<i>Fl.R.6s.</i>

Chart which will be affected – Aus 674 – Aus 677

1283(P)/2012 PAPUA NEW GUINEA - Edmago Island - Light beacon established
National Maritime Safety Authority PNG (AA641752 - AA641754)

A port lateral light beacon, *Fl.R.2-5s*, exists in position 2° 37'.02 S 150° 44'.88 E.

Chart which will be affected – Aus 666

1284(P)/2012 PAPUA NEW GUINEA - Hyane Harbour to Lorengau Bay - Light beacons established
National Maritime Safety Authority PNG (AA641752 - AA641754)

Light beacons will be established as follows:

<i>Position</i>	<i>Characteristic</i>
2° 01'.19 S 147° 16'.26 E	<i>Q.R</i>
2° 01'.44 S 147° 16'.56 E	<i>Fl.G.1-5s</i>
2° 00'.93 S 147° 16'.78 E	<i>Fl.R.4s.</i>
2° 02'.66 S 147° 25'.20 E	<i>Q.</i>

Chart which will be affected – Aus 662

1285(P)/2012 PAPUA NEW GUINEA - Karkar Island - Light beacon established
National Maritime Safety Authority PNG (AA641752 - AA641754)

A starboard lateral light beacon, *Fl.G.4s*, exists in position 4° 31'.70 S 146° 00'.82 E.

Chart which will be affected – Aus 388

EAST TIMOR

NIL

MISCELLANEOUS

966(T)/2012 AUSTRALIA - Summer time

Australian Government (AA624904)

Clocks will be advanced one hour at 0200 local time on 7 OCT 2012 and retarded one hour on 7 APR 2013 in the Australian Capital Territory, New South Wales, South Australia, Victoria and Tasmania.

No changes will be made in Queensland, Northern Territory and Western Australia.