

ANNUAL AUSTRALIAN NOTICES TO MARINERS

IN FORCE ON 1 JANUARY 2010

(Former Annual Australian Notices to Mariners dated 1 January 2009
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 2009 was No 1471

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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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 Distribution Network section on the AHS website. Details of licensed commercial Notices to Mariners delivery services can also be found in the *About Australian Notices to Mariners* section on the AHS website.
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 sixteen charts covering its adjacent oceans and seas.
7. Charts in these series are available for reprinting by member States of the International Hydrographic Organisation (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.

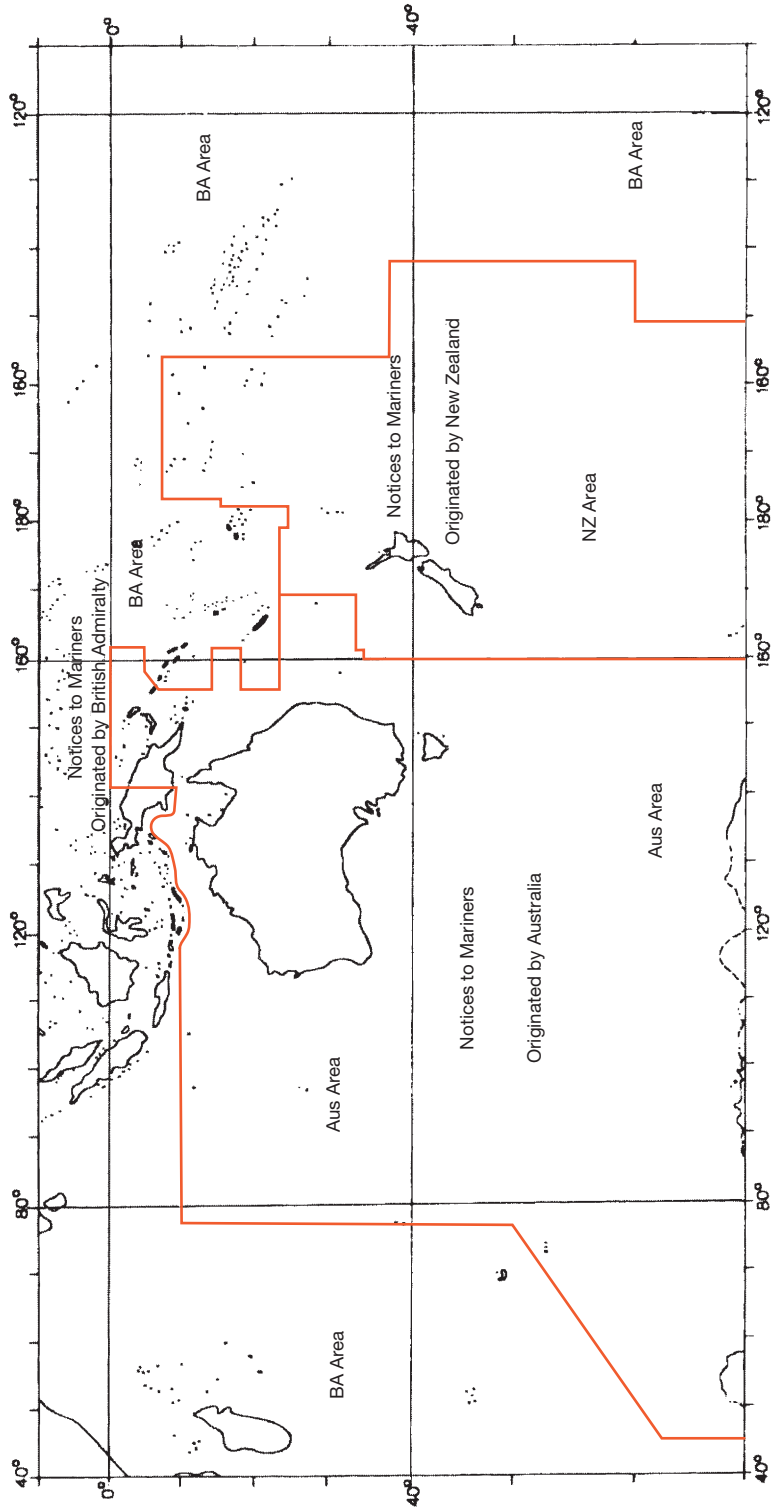
Index of Australian Charts

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, 2010.
Aus 5001 - Australia - Index of Nautical Charts and Publications Southern Portion, 2010.
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 Seafarer RNC 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.
 - 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) List of the main 22 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) Prediction datum for all ports is to Lowest Astronomical Tide. A correction from LAT to Chart Datum is supplied.
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 Australian Seafarers Handbook**, provides mariners with a description of the Australian physical and jurisdictional maritime environment.
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 such as maritime safety information, meteorological broadcasts, warnings, search and rescue, Australian maritime legislation and regulations, AUSREP and REEFREP ship reporting systems, maritime security, customs, quarantine, immigration and military information, marine protected areas, regulations and responsible agencies, buoyage, coastal pilotage, Torres Strait and GBR shipping routes, accident and incident reporting, Australian trading ports and responsible agencies.

AUSTRALIAN AND NEW ZEALAND CHARTING AREAS



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), *Seafarer RNCs* (Raster Navigational Chart) (for those areas not yet covered by Australian *ENCs*) and *Seafarer Tides* 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*, *Seafarer RNCs* and *Seafarer Tides* also meet carriage requirements under Australia's National Standards for Commercial Vessels.

Australian ENC

17. 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.

18. 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 *Seafarer ENCs*. Port authorities (and maritime safety authorities) may acquire *Seafarer ENCs* 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.

Seafarer RNC

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

Product Compatibility

20. The *Seafarer RNC* 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 *Seafarer RNC* and ARCS compatible systems to take full advantage of the global service offered by ARCS outside Australian waters.

Seafarer RNC Packaging

21. *Seafarer RNC* 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		

22. *Seafarer Viewer* is a desktop software package suitable for viewing a range of international chart formats including:
- IHO S63 Protected ENC (including Australian ENC)
 - S57 ENC
 - HCRF Raster (Seafarer RNC, Admiralty ARCS and New Zealand Mariner)
 - Australian HCRF Aligned Products (WA DPI RNC and GBRMPA RNC)
23. *Seafarer Viewer* is designed for anyone who needs to store and view nautical charts but does not need to navigate with them.
24. *Seafarer Tides* 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. *Seafarer Tides* is released annually in October and provides tidal predictions for the following calendar year. As required update patches are available from *Downloads & Demo* section of the AHS website.
25. *Seafarer GeoTIFF* 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. *Seafarer GeoTIFF* 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.
26. ® *Seafarer* is a registered trademark of the Commonwealth of Australia.

Web Services

27. A comprehensive range of information and services are also available from the AHS website at www.hydro.gov.au and include:
- Australian Notices to Mariners**, including block corrections and tracings.
 - eNotices** a free electronic service that allows the customer to receive Notices to Mariners, by email, customised for their chart and publication holdings.
 - 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.
 - Australian Chart Index (ACI)** a catalogue of Australian paper charts, Australian ENCs and Seafarer RNC packs. It enables the mariner to search and obtain product related view thumb nail images and related Notices to Mariners. The ACI can be accessed through the Standard ACI (that provides both paper chart and ENC cell lists in an easy to read text-based format), through the Advanced ACI (using a zoom-in/zoom-out Map) or through the GoogleEarth™ ACI (that displays low resolution images of paper charts and ENC cells draped over GoogleEarth™ satellite maps).

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 *Australian Notices to Mariners*.
- N** **Non-Correcting Agent** - indicates agents who supply Australian nautical publications and supply uncorrected Australian nautical charts but provide information concerning the *Notices to Mariners* 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: *Seafarer Tides* 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.

NEW SOUTH WALES

BALLINA

Ballina Marineland Boat Sales
67 Endeavour Close
Ballina 2478

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BATEMANS BAY

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Eden 2551

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GERRINGONG

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GOSFORD

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Website www.hitorquemarine.com

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LORD HOWE ISLAND

Lord Howe Island Historical Society
Corner Lagoon & Middle Beach Rds
Lord Howe Island 2898

Telephone +61 (0)2 6563 2111
Fax +61 (0)2 6563 2092

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Nelson Bay Sports
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Nelson Bay 2315

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Email sports@nelsonbay.com

N

NEWCASTLE

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Steel River Business Centre
Mayfield West 2304

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Fax +61 (0)2 4915 3099
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Website www.themapshop.com.au.
www.who@whopres.com.au

N

SYDNEY

Boat Books (Australia) Pty Ltd
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Website www.boatbooks-aust.com.au

C, S, NtM

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Email sales@whitworths.com.au
Website www.whitworths.com.au

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Website www.whitworths.com.au

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Crows Nest 2065

Telephone +61 (0)2 9436 3118
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Email sales@whitworths.com.au
Website www.whitworths.com.au

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Whitworth's Supermarket
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Drummoyne 2047

Telephone +61 (0)2 9819 6211
Fax +61 (0)2 9181 1369
Email sales@whitworths.com.au
Website www.whitworths.com.au

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Whitworth's Supermarket
82 Darley Street
Mona Vale 2103

Telephone +61 (0)2 9979 7053
Fax +61 (0)2 9979 7126
Email sales@whitworths.com.au
Website www.whitworths.com.au

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WOLLONGONG

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Website www.bushcraftequipment.com.

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Website www.quadrantmarine.com.au

N

BIGGERA WATERS

Coast Maps & Charts

Shop A56
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Gold Coast Highway
Biggera Waters 4216

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Fax +61 (0)7 5537 2288
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Website www.coastmaps.com.au

N

BOWEN

Bowen Independent

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Bowen 4805

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N

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C

CAIRNS

Absells Chart & Map Centre

Main Street Arcade,
85 Lake Street
Cairns 4870

Telephone +61 (0)7 4041 2699
Fax +61 (0)7 4051 2699
Email absells@iig.com.au

N

**Cairns Navigation Centre
Markwell Marine**

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Cairns 4870

Telephone +61 (0)7 4030 0100
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N, S

Cairns Chart Correcting Agency

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Email info@cairncharts.com.au
Website www.cairncharts.com.au

C, NtM

Whitworth's Supermarket

230 Hartley Street
(Cnr Hartley & Brown Streets)
Bungalow 4870

Telephone +61 (0)7 4035 5933
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Email sales@whitworths.com.au
Website www.whitworths.com.au

N

GLADSTONE

Compleat Angler Gladstone
Bryan Jordan Drive
or
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Gladstone 4680

Telephone +61 (0)7 4972 7283
Fax +61 (0)7 4972 7883
Email Gladstone@completeangler.com.au
Website www.completeangler.com.au

N

MACKAY

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Mackay 4740

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Email noel@barrapro.com.au
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N

MAIN BEACH

Bosun's Locker
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Main Beach 4217

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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

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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 25*, 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 Station (LES) at Perth provides 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 Telecommunications 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.25 and 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.
- (d) Operation of the Australian Ship Reporting System (AUSREP).

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 AusSAR Aviation +61 (0)2 6230 6899
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 Email rccaus@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 Organisation (IMO) and International Civil Aviation Organisation (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.

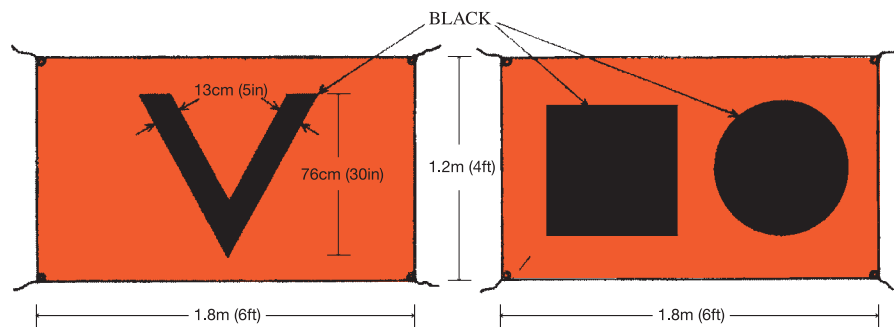
13. On no account should the strop or winch wire, when lowered to the vessel, be secured to any part of the vessel or allowed to become entangled with any rigging or fixtures.

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), or through RCC Australia.

Distress Signals for SAR

16. Searching aircraft frequently experience difficulty in 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 *below*). 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.

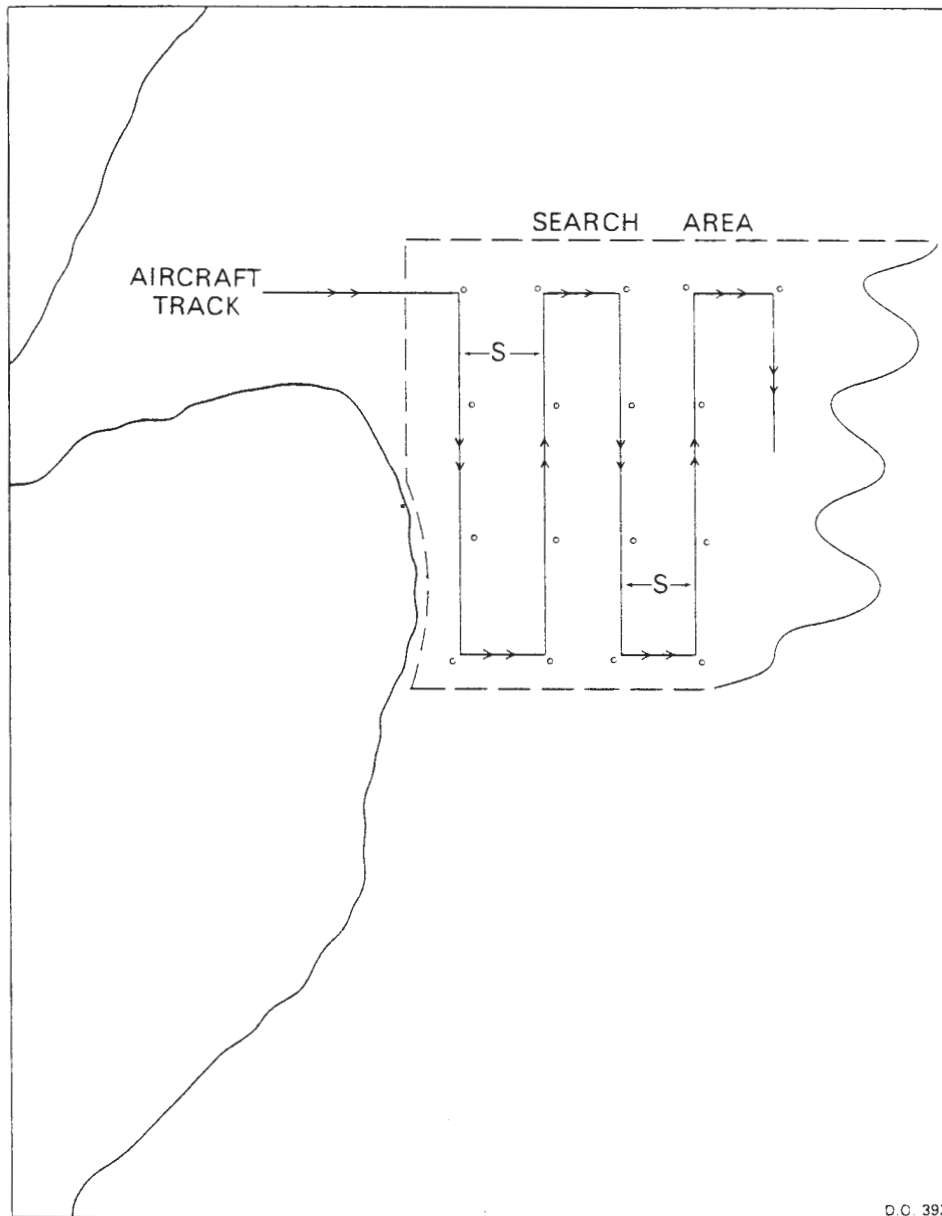
Use of Emergency Position Indicating Radio Beacons (EPIRBs)

29. The 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:

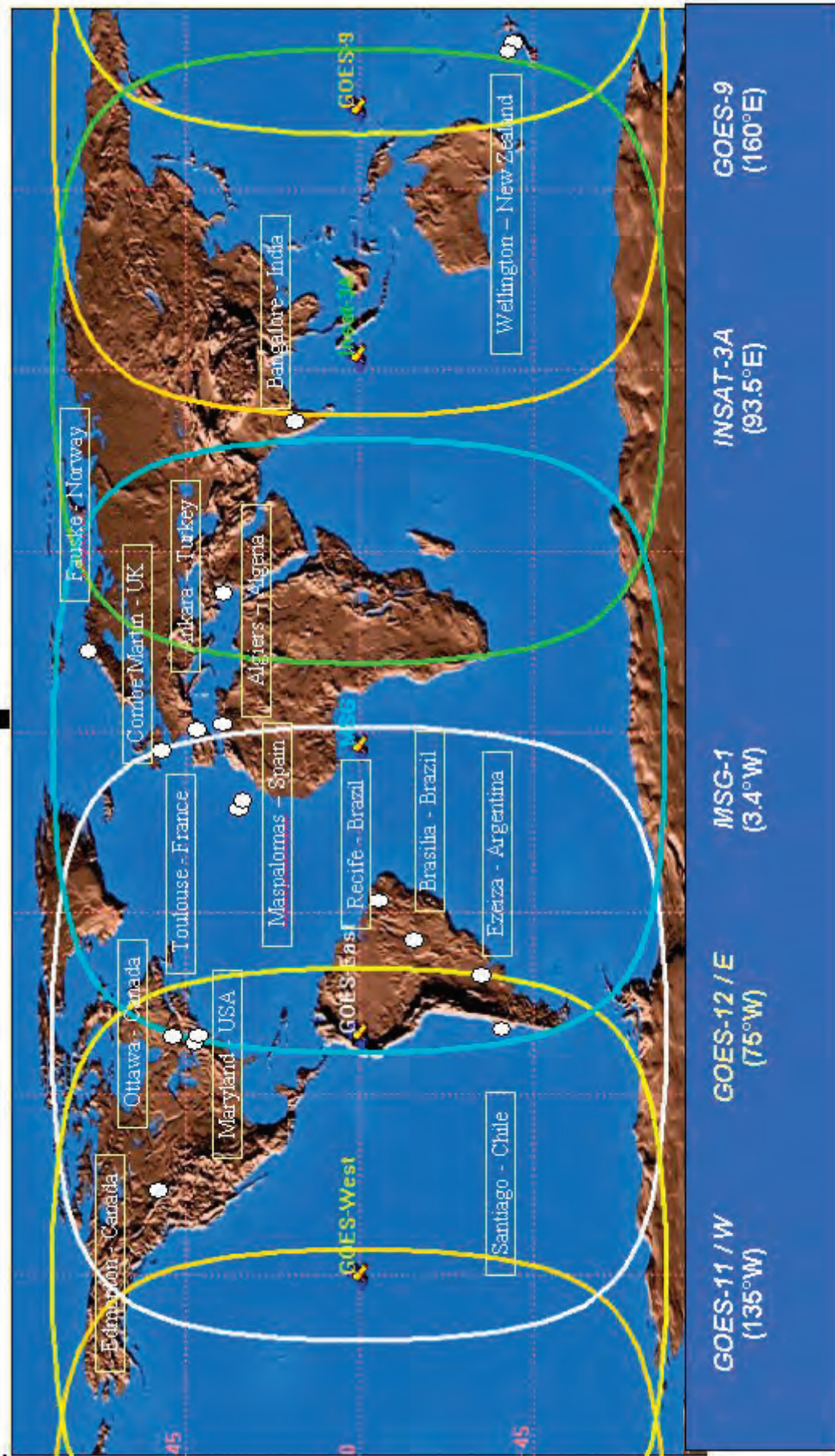
- (a) EPIRBs operating on 406 MHz are detectable throughout the whole of the Australian SRR with a high degree of accuracy. These EPIRBs can also be detected almost instantaneously via the geostationary satellite system.
- (b) 406 MHz beacons have global coverage because the satellites have a store and 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 will cease to process the 121.5/243.0 MHz frequencies on 1 February 2009. From this date all mariners will 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/>.

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



(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 22*).

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 operation 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.

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 the Royal Flying Doctor Service (RFDS) Telemedical Advice Centre (TMAC) at Cairns QLD.

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 TMAC or other recognized medical authority. RCC Australia will seek medical advice concerning the evacuation method from the TMAC 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) Vessels 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 2008)

1. Masters should note that:
 - (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 Perth, 212 for Pacific Ocean Region and 312 for Indian Ocean Region using Special Access Code (SAC) 1243.

Note: If AUSREP reports are sent through other LES using 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.

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

Purpose of the AUSREP System

2. AUSREP is an integral part of the Maritime Search and Rescue (SAR) system in Australia. AUSREP is operated by the Australian Maritime Safety Authority through the Rescue Coordination Centre (RCC Australia). For further details on RCC Australia see *Notice to Mariners No 4*.

3. The objective of the AUSREP system is to contribute to safety of life at sea by:
 - (a) Limiting the time between the loss of a ship and the initiation of search and rescue action, in cases where no distress signal is sent out.
 - (b) Limiting the search area for a rescue action.
 - (c) Providing up-to-date information on shipping resources available in the area, in the event of a search and rescue 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 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 ships 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*.
 - (f) Suitably equipped small craft on passage of 200 NM or more between different ports, see *Notice to Mariners No 4B*.

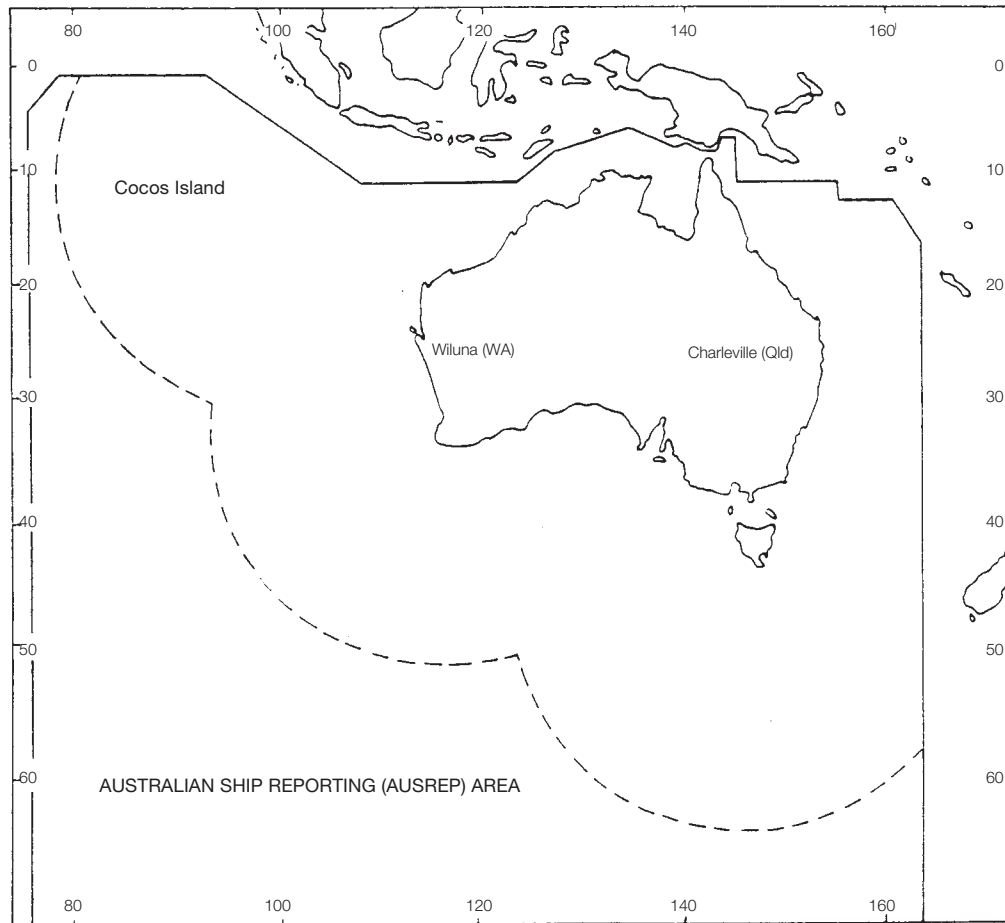
Offences

5. Regulations under the *Navigation Act 1912* provides for penalties involving fines not exceeding \$5 500 for infringements of reporting provisions.

Concept of the AUSREP System

6. On departure from an Australian port or on entering the AUSREP area from overseas:
 - (a) Masters are to send a Sailing Plan (SP) to RCC Australia.
 - (b) A computerised plot will be maintained of the ships position.
 - (c) Masters are to agree to their ship being polled via Inmarsat C which will automatically send a PR, when requested.
or
If Inmarsat-C polling is unavailable, Masters are to send a Position Report (PR) 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. Dates and times contained in AUSREP reports are to be in Co-ordinated Universal Time (UTC)
 - (d) A Final Report (FR) is to be sent on arrival at the destination or on departure from the AUSREP area.

7. Should a ship at any time be in a position more than two hours steaming from the position that would have been predicted from the last SP or PR, then a Deviation Report (DR) must be sent. Failure to send an AUSREP DR, may result in a search being concentrated in the wrong area and the possibility that survivors from a stricken ship may not be found. Masters should also refer to *Sections 6.9/6.11 (Overdue AUSREP reports) of the AUSREP Booklet*.



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

Types of AUSREP reports

8. Main Report Types

- (a) SP Sailing Plan
- (b) PR Position Report
- (c) DR Deviation Report
- (d) FR Final Report

9. These reports are sent using the IMO message format (see *para 35* for numbering and description of fields).

10. 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.

11. Masters should advise RCC Australia, or the REEF CENTRE (if in the REEFVTS area) 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.)

12. 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.

13. How to send AUSREP reports

(a) In an Australian port.

It is advisable to communicate all reports direct from the ship to RCC Australia to avoid delays associated with intermediate agencies. An Inmarsat-C message, a reverse charge telephone call, or facsimile may be used when sending a Sail Plan or Final Report when in port.

(b) Via INMARSAT

Reports must be addressed *RCC AUSTRALIA* and sent via the Pacific or Indian Ocean Region satellites to Perth Land Earth Station (Perth LES) using LES codes 212 and 312 respectively. These procedures apply only to AUSREP messages.

Calls free of charge when reporting within the AUSREP area

INMARSAT C fitted Ship Earth Stations (SES)

Ships will not be charged for messages sent via Inmarsat C if these procedures are followed:

Select Special Access Code (SAC) 1243 on their MES and log into Perth LES 212 for POR and 312 for IOR. Refer to the users handbook for instructions, or see the latest AUSREP Handbook or the AMSA web site.

Note: If sent through a different LES the SAC message may be misdirected and not be received by RCC Australia.

Charged Calls

INMARSAT B, M or Fleet 77 fitted Ship Earth Stations (SES)

Ships will be charged for messages sent via Inmarsat B, M or Fleet 77 to RCC AUSTRALIA.

Note: ensure ship's antennae is directed at appropriate Indian or Pacific Ocean satellite.

While reporting to AUSREP, you should ensure that your Inmarsat equipment remains active in the "LOGIN" mode at all times.

(c) Via the AMSA HF DSC Network

The preferred method of lodging AUSREP reports, including Sail Plans, Position Reports, Deviation Reports and Final Reports, is via Inmarsat C using the polling option in lieu of manually sending position reports. However, reports may also be lodged via radio through the AMSA HF DSC network. Initial contact to the network is via a DSC safety message addressed to MMSI 005030001. Vessels will be shifted to a working channel and the AUSREP traffic passed via HF voice communications or NBDP depending upon the follow-on communications specified by the vessel. The Maritime Communications Station RCC Australia's radio callsign is VIC. Calls received by stations at Wiluna and Charleville are answered from the network control centre at RCC Australia.

(d) REEFVTS Interaction

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

- (i) Ships must report to the REEFVTS.
- (ii) Where the ship advises it is an AUSREP reporter then regular position reports are automatically forwarded to RCC Australia. When the vessel departs the REEFVTS area, then the Master should revert to reporting directly to RCC Australia. Ships participating in AUSREP will continue to be polled whilst transiting the REEFVTS area.
- (iii) 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.
- (iv) If the vessel is an AUSREP reporter and arriving at a port within the REEFVTS area, the master should advise REEFVTS that it is the Final Report for REEFVTS and AUSREP. REEFVTS will pass this information automatically onto AUSREP on the ships behalf.
- (v) Procedures for reporting to REEFVTS are provided in the Great Barrier Reef and Torres Strait Vessel Traffic Service User manual 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)

14. 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.

15. Under this option RCC Australia will not undertake any "positive checks" regarding the ships safety. A NOREP ship must comply with the mandatory requirement to report to REEFREP when the ship enters the REEFREP area.

AUSREP Sailing Plan (SP)

16. When to send an AUSREP SP

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.

The SP contains information necessary to initiate a plot and gives an outline of the intended passage. If you do not sail within two hours of the time stated in the SP then you must cancel the SP and send a new SP within 2 hours of the revised sailing time.

17. Format fields for your AUSREP SP

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

* For ships transiting the REEFREP SRS area also include E, F, J, L, O, P

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

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

Polling

18. AMSA has introduced the use of Inmarsat-C polling. A Master must make his ship available for RCC Australia to poll his ship using Inmarsat-C by inserting the word "POLL" in field N of the Sailing Plan instead of nominating a date time group. Polling involves RCC Australia sending a signal to the ship's Inmarsat-C terminal to prompt an automatic position report, which includes the ship's position. This process alleviates the need for the transmission of a manual position report. Masters are still required to send Sailing Plans, Deviation Reports and Final Reports. For further information refer to the *AUSREP Booklet*. Ships Masters are encouraged to use polling where possible.

AUSREP Position Report (PR)

19. When to send an AUSREP PR

If Inmarsat-C Polling is unavailable or RCC Australia directs, that Masters are 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. If for any reason communications are not possible via Inmarsat-C or via the AMSA HF DSC station, the required information must be passed by alternative means to RCC Australia. These means may include phone or fax. Where Masters have nominated polling as the method of reporting, AUSREP PRs are sent automatically and regularly when the terminal is polled by RCC Australia.

20. Format fields for your AUSREP PR

Mandatory fields: A, B, C, E, F, N

Additional fields: X and Y (if appropriate)

How the information is used

21. The information contained in the PR will be used by RCC Australia to update the plot. The PR must reflect the position of the ship at the time of the report. Masters should always ensure that the Date/Time of next report is appropriate for ship's time and location on the following day. **Speed must be the anticipated speed until the next report time.** Advice on how to describe the course is contained in *Appendix C* of the *AUSREP Booklet*.

22. AUSREP Position Reports are normally processed automatically by RCC Australia. Automatic processing is efficient but messages are not always seen by an operator. If a Master has additional important safety information that requires the immediate attention of an operator, the word "ALERT" in field X of a PR will send the message to an operator for action.

Please only use 'ALERT' to identify important safety information for immediate action.

Note:

(a) Masters must make sure that their PRs are sent at the time they nominated.

(b) The ETA at the Australian destination, or AUSREP area boundary, must be confirmed in the last PR of a voyage. It should also be amended in any report whenever the Master is aware of a revised ETA. Interval between reports must not exceed 24 hours.

AUSREP Deviation Report (DR)

23. 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 your last SP or PR. A DR can also be sent when any other voyage details are altered (see additional fields in the *AUSREP Booklet*).

24. Mandatory format fields for your AUSREP DR

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

Additional fields: should be included where applicable. The reason for deviation should be included in Field X.

Why RCC AUSTRALIA needs to know where you are.

25. If your ship is in distress and if you have not been able to send a Mayday message the AUSREP positive checking system operated by RCC Australia may result in an air search to locate your ship. The search aircraft will start looking in the area related to your ship's predicted route and speed. If you have failed to report a deviation from your planned route and speed the search aircraft may not be able to find any survivors. It is in your best interest to keep RCC Australia up to date on all your voyage details. **Send a DR if you are more than two hours from a position which would be predicted from your last report.**

AUSREP Final report (FR)

26. When to send an AUSREP FR

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

(b) Ships **ending a voyage at an Australian port within the REEFREP SRS area** must report their FR **at the last REEFREP reporting point.**

27. 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 the 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. Under no circumstances should an FR be sent more than two hours before arrival. Alternatively the FR may be phoned to RCC Australia immediately after berthing, but no later than two hours after arrival. If it is known that the ship is to anchor or berth where telephone facilities are not available, then the FR should be passed via Inmarsat C or if not available via HF with an initial call on HF DSC.

28. **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

29. **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.

30. **What if you cannot send your report?**

If for any reason a Master is unable to pass their PR or FR they should attempt to pass a message through another ship, or harbour or other shore authority as appropriate. Methods to do this could include VHF, signaling lamp, or use of an emergency transmitter. Masters are requested to ensure that these procedures are followed.

31. **Action taken by RCC Australia**

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) Attempts to contact ship directly by calling on HF DSC to ship's MMSI.
- (d) Extensive communication checks with Australian and overseas CRS, owners, agents and other ships are carried out to trace the last sighting or contact with the ship.

32. By the time twenty-one hours has elapsed, search planning will be in progress and details included in NAVAREA X and facsimile weather broadcasts. 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 where possible.

Note: the resources available for an air search decrease with distance from an Australian base.

Reports to AMVER

33. Whilst participating in AUSREP (see note below), Masters may also wish their reports to be forwarded for inclusion in the AMVER system operated by the United States Coast Guard. You should indicate this in each report in format field "Y". This may be particularly important to you when you send your FR at the AUSREP boundary. You must ensure that the letters in the word AMVER are not separated by spaces as this may disrupt the computer processing.

34. For vessels participating in Inmarsat-C polling, if field Y in a SP indicates that reports are to be passed to AMVER, the AUSREP system will automatically forward PR's to AMVER.

Note: RCC Australia will only forward AMVER reports to the US Coast Guard while your ship is in the AUSREP area and while you are reporting to the AUSREP system.

Reports to Other Reporting Systems

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

Further Information or Advice on AUSREP Procedures

36. 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 2 6230 6880

Facsimile +61 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

37. 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 iaw 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.
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. If polling, report type and make of Inmarsat-C terminal.
Y	Request to relay a report to another system, eg AMVER.

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

Australian Maritime Safety Authority, Canberra.

(AA439709)

4B. SMALL CRAFT PARTICIPATION IN THE AUSTRALIAN SHIP REPORTING SYSTEM (AUSREP)

1. Following the success of AUSREP for commercial ships and noting the system's significant contribution to safety of life at sea, the system has been further developed for small craft.

2. These instructions generally follow the same principles as those for commercial ships as described in *Notice to Mariners No 4A*.

Eligibility

3. 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 ie, Inmarsat-C or HF DSC.

Operating Authority

4. RCC Australia is the operating authority for the small craft AUSREP. See *Notice to Mariners No 4* for contact details.

Identification of Small Craft Report.

5. The vessel's name and callsign (*component A*) must be preceded by the words SMALLCRAFT AUSREP:

A. SMALL CRAFT AUSREP SP BLUEBOTTLE VL9191

(Remainder of report)

Note: See *Notice to Mariners No 4A, para 6* for remainder of the components.

Action taken when a report becomes overdue.

6. The success of any ship reporting system depends upon the participants observing the rules. If an expected report is not received within six (6) hours after their nominated report time, then an overdue report situation is deemed to exist by RCC Australia. The actions taken in these circumstances will depend on the assessment made by SAR authorities but may include:

- (a) Communications check with AMSA HF DSC network, Limited Coast Radio Stations and shipping in the area.
- (b) Port checks (checks of ports, anchorages and shelters).
- (c) Requests for sighting reports from aircraft and other vessels.

7. If after these checks are completed, a vessel remains overdue, a further assessment will be made by the Duty Senior Search and Rescue Officer at RCC Australia as to the appropriate course of action. More rapid action to confirm the vessel's safety may be initiated if warranted by the circumstances.

Australian Maritime Safety Authority, Canberra.

(AA439709)

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 32).

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 Time</i>	<i>ASA</i>
Sydney	Coast Radio Sydney	4125, 6215, 8291 kHz	8176 kHz	1057 2357 EST (0057 1357 UTC)	B, C, D
Gladstone	Coast Radio Gladstone	4125, 6215, 8291 kHz	8176 kHz	0857 2157 EST (2257 1157 UTC)	A, B, C
Cairns	Coast Radio Cairns	4125, 6215, 8291 kHz	8176 kHz	0957 2257 EST (2357 1257 UTC)	H, A, B
Darwin	Coast Radio Darwin	4125, 6215, 8291 kHz	8176 kHz	1127 1927 CST (0157 0957 UTC)	G, H, A
Port Hedland	Coast Radio Port Hedland	4125, 6215, 8291 kHz	8176 kHz	1257 1657 WST (0457 0857 UTC)	F, G, H
Perth	Coast Radio Perth	4125, 6215, 8291 kHz	8176 kHz	1457 1857 WST (0657 1057 UTC)	E, F, G
Adelaide	Coast Radio Adelaide	4125, 6215, 8291 kHz	8176 kHz	1327 1727 CST (0357 1257 UTC)	D, E, F
Melbourne	Coast Radio Melbourne	4125, 6215, 8291 kHz	8176 kHz	0757 1257 EST (0257 2157 UTC)	C, D, E
Hobart	Coast Radio Hobart	4125, 6215, 8291 kHz	8176 kHz	1557 EST (0557 UTC)	C, D, E

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.

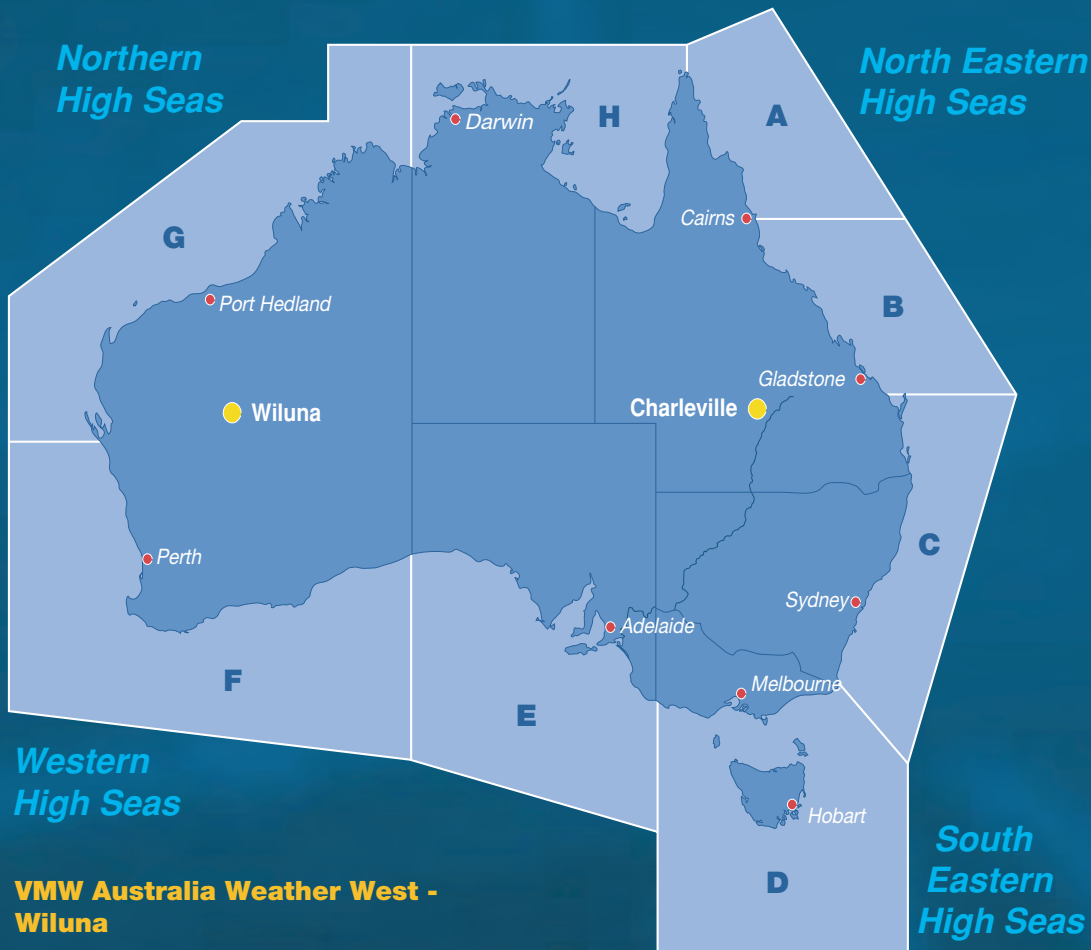
(AA439709)

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; but, vessels can indicate in their AUSREP message that they would like their AUSREP report passed on to AMVER. The passing of AMVER messages by AMSA will only occur where a vessel is operating in the AUSREP system. Other 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.

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

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.

(AA439709)

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. 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, October 2008 edition.

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 121.5/243 MHz and 406 MHz, and providing alert and location data to rescue co-ordination centres (RCC). 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 25* 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, AMSA
 GPO Box 2181
 Canberra
 ACT 2601.

Australian Maritime Safety Authority, Canberra.

(AA439709)

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 through Perth Land Earth Station (LES) in respect of 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

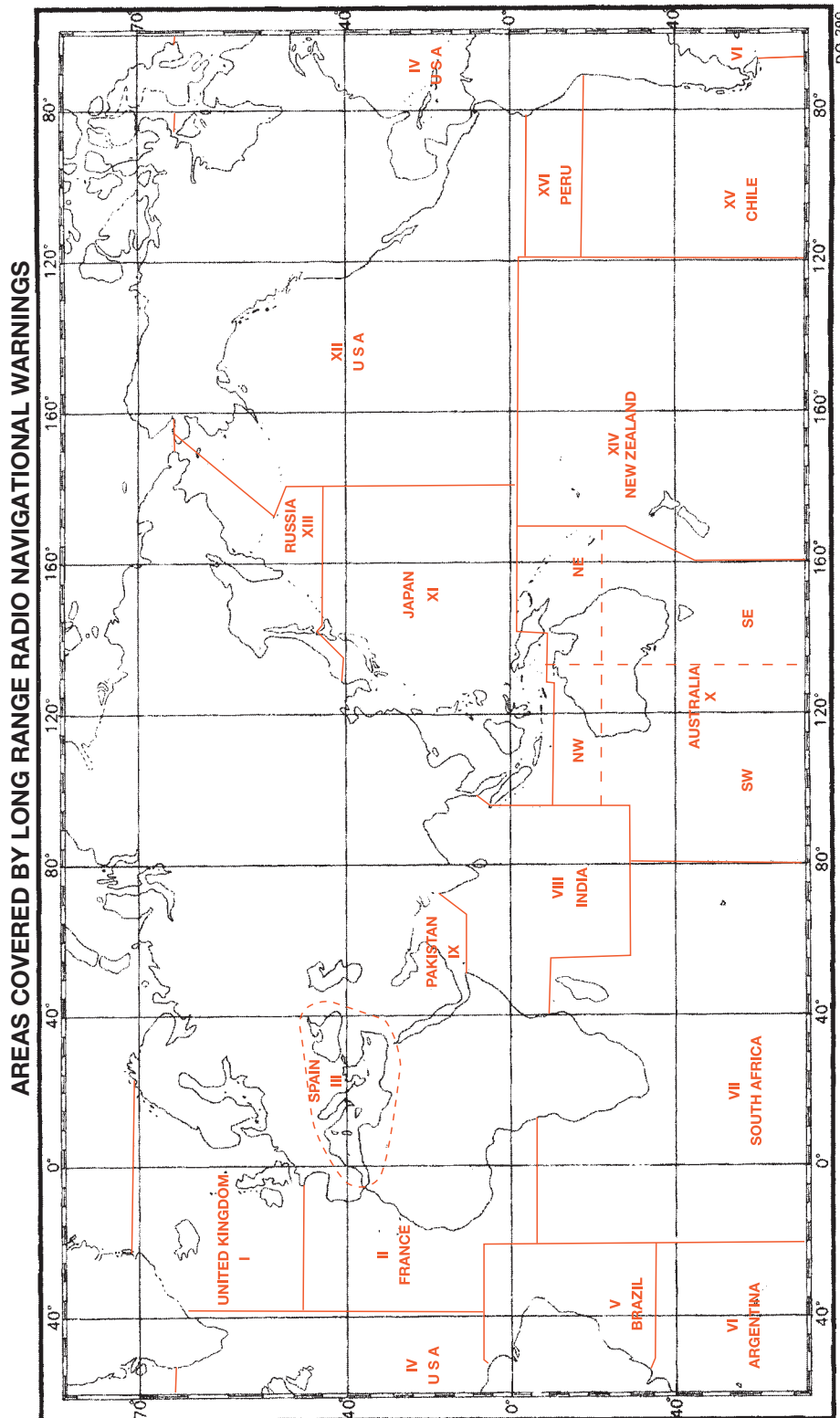
14. NAVAREA X warnings will only be issued in respect of navigational aids or dangers outside the Australian coastal areas depicted in the diagram; except that aids such as GNSS are also issued as NAVAREA X warnings.

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 "temporarily discontinued" 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 withdrawn** - 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) **Temporarily discontinued** - 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.

(AA439709)

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 through the Land Earth Station (LES) in Perth. 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.

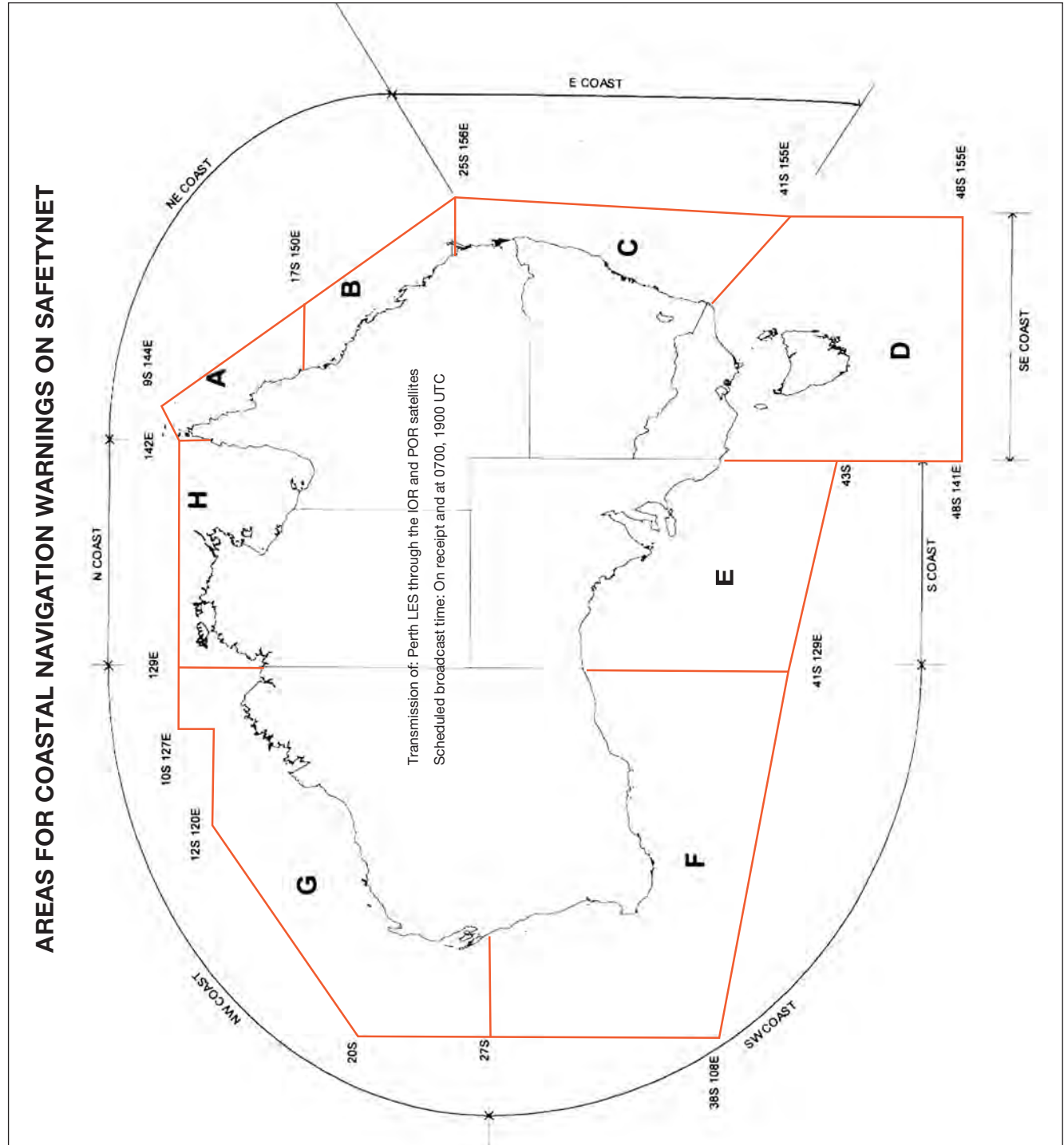
2. All Australian coastal navigation warnings will be promulgated via the POR and IOR satellites. Positional information should be regularly updated if the SES is not provided with automatic position information by an interface with navigational equipment. When a position has not been updated for more 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 *below*).

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:

- Coastal Warning Areas as per the figure.
- Navigational Warnings for Coastal (AUSCOAST) Warnings.
- Additional Navigational Warnings for local (SSM) warnings.
- SAR for search and rescue messages.
- Meteorology Forecasts for Bass Strait weather.



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.

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

Administrative Authority Navy

Vertical Limits Nil

Times of Use H24

Chart Aus 197

Chartlet 2

(a) 33° 34' 38" S 151° 18' 30" E

(b) 33° 32' 54" S 151° 18' 39" E

(c) 33° 32' 52" S 151° 20' 45" E

(d) 33° 31' 44" S 151° 24' 14" E

(e) 33° 31' 09" S 151° 25' 15" E

(f) 33° 31' 09" S 151° 32' 24" E

(g) 33° 37' 35" S 151° 28' 00" E

(h) 33° 37' 35" S 151° 20' 30" E

(i) 33° 35' 04" S 151° 20' 03" E

(j) 33° 34' 45" S 151° 19' 44" E.

SR051 Jervis Bay

Nature of Activity Naval mine laying and sweeping

Administrative Authority Navy

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 Firing

Administrative Authority Navy

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 Firing, bombing, radar tracking

Administrative Authority Navy

Vertical Limits Notam

Times of Use Notam

Chart Aus 423

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* Firing, bombing, radar tracking*Vertical Limits* Notam*Chart* Aus 423

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

Administrative Authority Navy*Times of Use* Notam*Chartlet* 1**YMMM/R453C Tasman Sea***Nature of Activity* Firing, bombing, radar tracking*Vertical Limits* Notam*Chart* Aus 423

34° 57' 02" S 151° 30' 18" E, thence the minor arc of a circle of 47.9NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 13' 25" S 151° 26' 53" 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.

Administrative Authority Navy*Times of Use* Notam*Chartlet* 1**YMMM/R453D Tasman Sea***Nature of Activity* Firing, bombing, radar tracking*Vertical Limits* Notam*Chart* Aus 423

35° 13' 25" S 151° 26' 53" E, thence the minor arc of a circle of 47.9NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 27' 57" S 151° 16' 43" 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.

Administrative Authority Navy*Times of Use* Notam*Chartlet* 1**YMMM/R453E Tasman Sea***Nature of Activity* Firing, bombing, radar tracking*Vertical Limits* Notam*Chart* Aus 423

35° 27' 57" S 151° 16' 43" E, thence the minor arc of a circle of 47.9NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 38' 34" S 151° 01' 18" 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.

Administrative Authority Navy*Times of Use* Notam*Chartlet* 1**YMMM/R453F Tasman Sea***Nature of Activity* Firing, bombing, radar tracking*Vertical Limits* Notam*Chart* Aus 423

35° 38' 34" S 151° 01' 18" E, thence the minor arc of a circle of 47.9NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 44' 49" 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.

Administrative Authority Navy*Times of Use* Notam*Chartlet* 1**YMMM/R453G Tasman Sea***Nature of Activity* Firing, bombing, radar tracking*Vertical Limits* Notam*Chart* Aus 423

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' 25" S 151° 26' 53" E, thence the minor arc of a circle of 47.9NM radius centred on Nowra Tacan, to 34° 57' 02" S 151° 30' 18" E.

Administrative Authority Navy*Times of Use* Notam*Chartlet* 1**YMMM/R453H Tasman Sea***Nature of Activity* Firing, bombing, radar tracking*Vertical Limits* Notam*Chart* Aus 423

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° 27' 57" S 151° 16' 43" E, thence the minor arc of a circle of 47.9NM radius centred on Nowra Tacan, to 35° 13' 25" S 151° 26' 53" E.

Administrative Authority Navy*Times of Use* Notam*Chartlet* 1**YMMM/R453J Tasman Sea***Nature of Activity* Firing, bombing, radar tracking*Vertical Limits* Notam*Chart* Aus 423

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' 34" S 151° 01' 18" E, thence the minor arc of a circle of 47.9NM radius centred on Nowra Tacan, to 35° 27' 57" S 151° 16' 43" E.

Administrative Authority Navy*Times of Use* Notam*Chartlet* 1

YMMM/R453K Tasman Sea

Nature of Activity Firing, bombing, radar tracking
Vertical Limits Notam
Chart Aus 423

Administrative Authority Navy
Times of Use Notam
Chartlet 1

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' 45" E, 35° 44' 49" S 150° 37' 10" E, thence the minor arc of a circle of 47.9NM radius centred on Nowra Tacan, to 35° 38' 34" S 151° 01' 18" E.

YBBBB-YMMM/R453L Tasman Sea

Nature of Activity Firing, bombing, radar tracking
Vertical Limits Notam
Chart Aus 423

Administrative Authority Navy
Times of Use Notam
Chartlet 1

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.

YBBBB-YMMM/R453M Tasman Sea

Nature of Activity Firing, bombing, radar tracking
Vertical Limits Notam
Chart Aus 423

Administrative Authority Navy
Times of Use Notam
Chartlet 1

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.

YBBBB-YMMM/R453N Tasman Sea

Nature of Activity Firing, bombing, radar tracking
Vertical Limits Notam
Chart Aus 423

Administrative Authority Navy
Times of Use Notam
Chartlet 1

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.

YBBBB-YMMM/R453P Tasman Sea

Nature of Activity Firing, bombing, radar tracking
Vertical Limits Notam
Chart Aus 423

Administrative Authority Navy
Times of Use Notam
Chartlet 1

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

YMMM/R485A Tasman Sea

Nature of Activity Military flying training
Vertical Limits SFC-1 500
Chart Aus 423

Administrative Authority Navy
Times of Use Notam
Chartlet 1

(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).

YBBBB-YMMM/R485B Tasman Sea

Nature of Activity Military flying training
Vertical Limits SFC-7 500
Chart Aus 423

Administrative Authority Navy
Times of Use Notam
Chartlet 1

(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.

YBBBB-YMMM/R485C Tasman Sea

Nature of Activity Military flying training
Vertical Limits SFC-8 500
Chart Aus 423

Administrative Authority Navy
Times of Use Notam
Chartlet 1

(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.

YBBBB/R485D Tasman Sea

Nature of Activity Military flying training
Vertical Limits SFC-FL125
Chart Aus 423

Administrative Authority Navy
Times of Use Notam
Chartlet 1

(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 151° 10' 51" E) to
 (b) 34° 06' 00" S 152° 34' 17" E (c) 34° 06' 00" S 153° 34' 46" E
 thence the minor arc of a circle of 120NM radius centred on Sydney DME to 34° 50' 59" S 153° 20' 09" E.

YBBBB-YMMM/R485E Tasman Sea*Nature of Activity* Military flying training*Administrative Authority* Navy*Vertical Limits* SFC-FL205*Times of Use* Notam*Chart* Aus 423*Chartlet* 1

(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.

YBBB-YMMM/R489 Tasman Sea*Nature of Activity* Firing, bombing, radar tracking*Administrative Authority* Navy*Vertical Limits* Notam*Times of Use* Notam*Chart* Aus 361*Chartlet* 2

(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.

YMMM/R495A Tasman Sea*Nature of Activity* Firing, bombing, radar tracking*Administrative Authority* Navy*Vertical Limits* Notam*Times of Use* Notam*Chart* Aus 423*Chartlet* 1

(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.

YMMM/R495B Tasman Sea*Nature of Activity* Firing, bombing, radar tracking*Administrative Authority* Navy*Vertical Limits* Notam*Times of Use* Notam*Chart* Aus 423*Chartlet* 1

(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.

YMMM/R495C Tasman Sea*Nature of Activity* Firing, bombing, tracking*Administrative Authority* Navy*Vertical Limits* Notam*Times of Use* Notam*Chart* Aus 423*Chartlet* 1

(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.

YBBB/R595 Williamtown*Nature of Activity* Military intercept training*Administrative Authority* Air Force*Vertical Limits* SFC-FL600*Times of Use* H24*Chart* Aus 809*Chartlet* 2

(a) 32° 00' 00" S 152° 45' 52" E

(b) 31° 00' 21" S 153° 16' 04" E

(c) 30° 27' 37" S 153° 32' 21" E

(d) 31° 01' 44" S 155° 18' 14" E

(e) 32° 33' 37" S 154° 47' 57" E

(f) 33° 51' 30" S 154° 01' 56" E

(g) 33° 51' 30" S 152° 07' 57" E

(h) 33° 32' 50" S 151° 58' 52" E

(i) 33° 12' 21" S 151° 56' 02" E

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

(j) 32° 44' 36" S 152° 19' 24" E

(k) 32° 25' 00" S 152° 33' 00" E.

YBBB/R596 Williamtown*Nature of Activity* Firing*Administrative Authority* Air Force*Vertical Limits* SFC-FL120*Times of Use* Mon-Thu 2200-1200 UTC, Mon-Thu (HDS)

2200-1200 UTC, Fri 2200-0600 (1 hour earlier HDS)

Chart Aus 209*Chartlet* 2

(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.

Note: Notam may be requested to change activation hours with 2 hours notification**YBBB/R609 Evans Head***Nature of Activity* Firing*Administrative Authority* Air Force*Vertical Limits* Notam*Times of Use* Notam*Chart* Aus 813*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/R641A Evans Head

Nature of Activity Firing
Vertical Limits 1 000-8 000
Chart Aus 813

Administrative Authority Air Force
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/R641B Evans Head

Nature of Activity Firing
Vertical Limits SFC-8 000
Chart Aus 813

Administrative Authority Air Force
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/R641C Evans Head

Nature of Activity Firing
Vertical Limits 8 000-FL160
Chart Aus 813

Administrative Authority Air Force
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° 18' 29" S 153° 20' 28" E.

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

YBBB/R641D Evans Head

Nature of Activity Firing
Vertical Limits FL160-FL410
Chart Aus 813

Administrative Authority Air Force
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° 18' 29" S 153° 20' 28" E.

YBBB/R641E Evans Head

Nature of Activity Firing
Vertical Limits SFC-8 000
Chart Aus 813

Administrative Authority Air Force
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/R641F Evans Head

Nature of Activity Firing
Vertical Limits 8 000-FL160
Chart Aus 813

Administrative Authority Air Force
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/R641G Evans Head

Nature of Activity Firing
Vertical Limits FL160-FL410
Chart Aus 813

Administrative Authority Air Force
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.

QUEENSLAND**YBBB/R676 Cape Moreton**

Nature of Activity Firing
Vertical Limits Notam
Chart Aus 814

Administrative Authority Navy
Times of Use Notam
Chartlet 3

(a) 26° 57' 00" S 153° 25' 00" E (b) 26° 48' 00" S 153° 30' 00" E (c) 26° 52' 00" S 153° 40' 00" E
 (d) 27° 01' 00" S 153° 36' 00" E.

YBBB/R677A Brisbane*Nature of Activity* Military flying, laser operations and firing*Administrative Authority* Air Force*Vertical Limits* SFC-FL600*Times of Use* Notam*Chart* Aus 426*Chartlet* 3

(a) 27° 20' 00" S 154° 00' 00" E

(b) 25° 45' 00" S 154° 00' 00" E

(c) 25° 45' 00" S 155° 16' 16" E

thence along the minor arc of a circle 150NM radius centred on Brisbane DME (27° 21' 57" S 153° 08' 21" E) to

(d) 27° 20' 00" S 155° 56' 48" E.

Note: Notam may be requested to change activation hours with 2 hours notification**YBBB/R677B Brisbane***Nature of Activity* Military flying, laser operations and firing*Administrative Authority* Air Force*Vertical Limits* SFC-FL600*Times of Use* Notam*Chart* Aus 426*Chartlet* 3

(a) 28° 45' 03" S 154° 00' 00" E

(b) 27° 20' 00" S 154° 00' 00" E

(c) 27° 20' 00" S 155° 56' 48" E

thence along the minor arc of a circle 150NM radius centred on Brisbane DME (27° 21' 57" S 153° 08' 21" E) to

(d) 29° 05' 00" S 155° 12' 04" E

(e) 29° 05' 00" S 154° 10' 23" E.

Note: Notam may be requested to change activation hours with 2 hours notification**YBBB/R680 Akens Island***Nature of Activity* Firing*Administrative Authority* Army*Vertical Limits* Notam*Times of Use* Notam*Chart* Aus 822*Chartlet* 4

(a) 22° 17' 00" S 150° 12' 00" E

(b) 22° 15' 00" S 150° 20' 00" E

(c) 22° 12' 34" S 150° 25' 27" E

(d) 22° 15' 06" S 150° 23' 42" E

(e) 22° 17' 54" S 150° 23' 12" E

(f) 22° 23' 42" S 150° 26' 12" E

(g) 22° 30' 30" S 150° 27' 00" E thence N along the coast to 22° 19' 00" S 150° 10' 46" E.

YBBB/R681A Wide Bay*Nature of Activity* Firing*Administrative Authority* Army*Vertical Limits* SFC-Notam*Times of Use* Notam*Chart* Aus 817*Chartlet* 3

(a) 25° 55' 39" S 152° 55' 12" E

(b) 25° 48' 39" S 152° 55' 13" E

(c) 25° 49' 26" S 152° 51' 46" E

thence along Maryborough Cooloola Road to 25° 55' 39" S 152° 51' 33" E.

YBBB/R681B Wide Bay*Nature of Activity* Firing*Administrative Authority* Army*Vertical Limits* SFC-Notam*Times of Use* Notam*Chart* Aus 817*Chartlet* 3

(a) 25° 48' 23" S 152° 56' 21" E

(b) 25° 48' 39" S 152° 55' 13" E

(c) 25° 55' 39" S 152° 55' 12" E

(d) 25° 54' 58" S 152° 58' 51" E

(b) 25° 52' 57" S 152° 59' 20" E

(c) 25° 52' 32" S 153° 00' 01" E

thence along N side of Teebar Creek to

(e) 25° 50' 43" S 153° 01' 23" E

thence along Tin Can Bay Inlet to

(f) 25° 49' 40" S 153° 01' 12" E

thence along Wide Bay coast to

(g) 25° 47' 51" S 152° 58' 59" E

thence along S side of Red Bank to 25° 48' 40" S 152° 58' 03" E.

YBBB/R682 Townshend Island*Nature of Activity* Firing*Administrative Authority* Army*Vertical Limits* Notam*Times of Use* Notam*Chart* Aus 822*Chartlet* 4

(a) 22° 17' 54" S 150° 23' 12" E

(b) 22° 15' 06" S 150° 23' 42" E

(c) 22° 06' 00" S 150° 30' 00" E

(d) 22° 06' 00" S 150° 45' 00" E

(e) 22° 19' 00" S 150° 49' 00" E

(f) 22° 19' 00" S 150° 33' 00" E

(g) 22° 25' 56" S 150° 26' 28" E

(h) 22° 23' 42" S 150° 26' 12" E.

YBBB/R683 Cape Clinton*Nature of Activity* Firing*Administrative Authority* Army*Vertical Limits* Notam*Times of Use* Notam*Chart* Aus 822*Chartlet* 4

(a) 22° 30' 30" S 150° 27' 00" E

(b) 22° 25' 56" S 150° 26' 28" E

(c) 22° 19' 00" S 150° 33' 00" E

(d) 22° 19' 00" S 150° 49' 00" E

(e) 22° 41' 19" S 150° 50' 31" E.

YBBB/R684A Mount Hummock*Nature of Activity* Firing*Administrative Authority* Army*Vertical Limits* SFC-2 000*Times of Use* H24*Chart* Aus 822*Chartlet* 4

(a) 22° 55' 00" S 150° 27' 00" E

(b) 22° 30' 30" S 150° 27' 00" E

(c) 22° 41' 19" S 150° 50' 31" E

(d) 22° 49' 22" S 150° 47' 07" E

(e) 22° 47' 57" S 150° 37' 21" E

(f) 22° 54' 00" S 150° 36' 00" E.

YBBB/R684B Mount Hummock*Nature of Activity* Firing*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

Administrative Authority Army*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* Explosives Demolition*Vertical Limits* SFC-10 000*Chart* Aus 822

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

Administrative Authority Army*Times of Use* Notam*Chartlet* 4**YBBB/R687A Raspberry Creek***Nature of Activity* Firing*Vertical Limits* SFC-2 000*Chart* Aus 822

(a) 22° 52' 05" S 150° 16' 31" E

thence SE along the coast to

(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.

Administrative Authority Army*Times of Use* H24*Chartlet* 4**YBBB/R687B Raspberry Creek***Nature of Activity* Firing*Vertical Limits* 2 000-Notam*Chart* Aus 822

(a) 22° 52' 05" S 150° 16' 31" E

thence SE along the coast to

(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.

Administrative Authority Army*Times of Use* Notam*Chartlet* 4**YBBB/R689 Shoalwater Bay***Nature of Activity* Firing*Vertical Limits* Notam*Chart* Aus 367(a) 22° 27' 04" S 150° 05' 46" E
centred on 22° 16' 00" S 150° 33' 00" E

(e) 22° 06' 00" S 150° 45' 00" E

(h) 22° 15' 00" S 150° 20' 00" E

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

(c) 22° 41' 19" S 150° 50' 31" E

(f) 22° 06' 00" S 150° 30' 00" E

(i) 22° 17' 00" S 150° 12' 00" E.

(d) 22° 19' 00" S 150° 49' 00" E

(g) 22° 12' 34" S 150° 25' 27" E

Administrative Authority Army*Times of Use* Notam*Chartlet* 4**YBBB/R693 Elliott***Nature of Activity* Firing*Vertical Limits* Notam*Chart* Aus 366

(a) 24° 24' 00" S 152° 08' 00" E

(d) 24° 41' 00" S 152° 34' 00" E.

(b) 24° 11' 00" S 152° 31' 00" E

(c) 24° 28' 00" S 152° 58' 00" E

Administrative Authority Navy*Times of Use* Notam*Chartlet* 3**YBBB/R695A Herbert Creek***Nature of Activity* Firing*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

(b) 22° 27' 30" S 150° 05' 30" E

(e) 22° 51' 30" S 150° 13' 30" E

(c) 22° 27' 04" S 150° 05' 46" E

(f) 22° 44' 30" S 150° 08' 30" E.

Administrative Authority Army*Times of Use* H24*Chartlet* 4**YBBB/R695B Herbert Creek***Nature of Activity* Firing*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

(b) 22° 27' 30" S 150° 05' 30" E

(e) 22° 51' 30" S 150° 13' 30" E

(c) 22° 27' 04" S 150° 05' 46" E

(f) 22° 44' 30" S 150° 08' 30" E.

Administrative Authority Army*Times of Use* Notam*Chartlet* 4**YBBB/R695C Herbert Creek***Nature of Activity* Firing*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

(b) 22° 27' 30" S 150° 05' 30" E

(e) 22° 51' 30" S 150° 13' 30" E

(c) 22° 27' 04" S 150° 05' 46" E

(f) 22° 44' 30" S 150° 08' 30" E.

Administrative Authority Army*Times of Use* Notam*Chartlet* 4**YBBB/R725 Saumarez Reef***Nature of Activity* Firing*Vertical Limits* Notam*Chart* Aus 612

A circle of 5 NM radius centred on 21° 51' 18" S 153° 38' 47" E.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 3

YBBB/R747 Rattlesnake Island

Nature of Activity Firing
Vertical Limits SFC-Notam
Chart Aus 827

Administrative Authority Air Force
Times of Use Notam
Chartlet 5

A circle of 4.8 NM radius centred on 19° 02' 10" S 146° 36' 38" E.

YBBB/R748 Halifax Bay

Nature of Activity Firing
Vertical Limits SFC-FL600
Chart Aus 827

Administrative Authority Air Force
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 Firing
Vertical Limits SFC-Notam
Chart Aus 829 & Aus 830

Administrative Authority Navy
Times of Use Notam
Chartlet 6

(a) 17° 19' 00" S 146° 08' 18" E (b) 17° 08' 00" S 146° 07' 00" E (c) 17° 07' 00" S 146° 23' 00" E
 (d) 17° 22' 00" S 146° 25' 00" E (e) 17° 23' 30" S 146° 13' 00" E.

YBBB/R778 Cairns (Outer Reef)

Nature of Activity Firing
Vertical Limits SFC-Notam
Chart Aus 829 & Aus 830

Administrative Authority Navy
Times of Use Notam
Chartlet 6

(a) 16° 41' 30" S 146° 15' 00" E (b) 16° 30' 00" S 146° 15' 00" E (c) 16° 30' 00" S 146° 33' 00" E
 (d) 16° 41' 30" S 146° 33' 00" E.

YBBB/R783 Lizard Island

Nature of Activity Firing
Vertical Limits SFC-Notam
Chart Aus 832

Administrative Authority Navy
Times of Use Notam
Chartlet 6

(a) 14° 33' 00" S 145° 14' 00" E (b) 14° 28' 00" S 145° 22' 00" E (c) 14° 34' 00" S 145° 26' 00" E
 (d) 14° 40' 00" S 145° 18' 00" E.

NORTHERN TERRITORY**YBBB/R230A Darwin**

Nature of Activity Military flying training
Vertical Limits 5 000-Notam
Chart Aus 4721

Administrative Authority Air Force
Times of Use Notam
Chartlet 7

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.

YBBB/R230B Darwin

Nature of Activity All military operations
Vertical Limits Notam
Chart Aus 4721

Administrative Authority Air Force
Times of Use Notam
Chartlet 7

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.

YBBB/R230C Darwin

Nature of Activity All military operations
Vertical Limits Notam
Chart Aus 4721

Administrative Authority Air Force
Times of Use Notam
Chartlet 7

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.

YBBB/R230D Darwin*Nature of Activity* Military flying training*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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 7**YBBB/R230E Darwin***Nature of Activity* Military flying training*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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 7**YBBB/R230F Darwin***Nature of Activity* Military flying training*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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 7**YBBB/R264A Darwin***Nature of Activity* All military operations*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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 7**YBBB/R264B Darwin***Nature of Activity* All military operations*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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 7**YBBB/R264C Darwin***Nature of Activity* All military operations*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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 7**YBBB/R264D Darwin***Nature of Activity* All military operations*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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 7**YBBB/R264E Darwin***Nature of Activity* All military operations*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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 7

YBBB/R264F Darwin*Nature of Activity* All military operations*Administrative Authority* Air Force*Vertical Limits* Notam*Times of Use* Notam*Chart* Aus 4721*Chartlet* 7

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.

YBBB/R264G Darwin*Nature of Activity* All military operations*Administrative Authority* Air Force*Vertical Limits* Notam*Times of Use* Notam*Chart* Aus 4721*Chartlet* 7

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.

YBBB/R264H Darwin*Nature of Activity* All military operations*Administrative Authority* Air Force*Vertical Limits* Notam*Times of Use* Notam*Chart* Aus 4721*Chartlet* 7

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.

YBBB/R264J Darwin*Nature of Activity* All military operations*Administrative Authority* Air Force*Vertical Limits* 5 000-Notam*Times of Use* Notam*Chart* Aus 4721*Chartlet* 7

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.

YBBB/R264K Darwin*Nature of Activity* All military operations*Administrative Authority* Air Force*Vertical Limits* 5 000-Notam*Times of Use* Notam*Chart* Aus 4721*Chartlet* 7

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.

YBBB/R272 Bathurst Island*Nature of Activity* Radiation hazard*Administrative Authority* Air Force*Vertical Limits* SFC - 1500*Times of Use* H24*Chart* Aus 722*Chartlet* 7

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

WESTERN AUSTRALIA**Greenough***Nature of Activity* Firing*Administrative Authority* Army*Vertical Limits* Notam*Times of Use* HJ, Notam*Chart* Aus 751*Chartlet* 9

(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.

Flat Rock*Nature of Activity* Air to surface weapon firing*Administrative Authority* Air Force*Vertical Limits* Notam*Times of Use* Notam*Chart* Aus 753*Chartlet* 9

A circle of 2.4 NM radius centred on 30° 45' 40" S 115° 09' 45" E.

YMMM/R119A Stirling*Nature of Activity* Gunnery and military flying*Administrative Authority* Navy*Vertical Limits* SFC-FL950*Times of Use* Notam*Chart* Aus 417*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 Gunnery and military flying
Vertical Limits SFC-FL950
Chart Aus 417

Administrative Authority Navy
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 Gunnery and military flying
Vertical Limits SFC-FL950
Chart Aus 417

Administrative Authority Navy
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 Gunnery and military flying
Vertical Limits SFC-FL950
Chart Aus 417

Administrative Authority Navy
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 Gunnery and military flying
Vertical Limits SFC-FL950
Chart Aus 417

Administrative Authority Navy
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 Gunnery and military flying
Vertical Limits SFC-FL950
Chart Aus 417

Administrative Authority Navy
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 Gunnery and military flying
Vertical Limits SFC-FL950
Chart Aus 417

Administrative Authority Navy
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 Gunnery and military flying
Vertical Limits SFC-4 500
Chart Aus 417

Administrative Authority Navy
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/D126 Swanbourne

Nature of Activity Firing
Vertical Limits SFC-4 000
Chart Aus 112

Administrative Authority Army
Times of Use H24
Chartlet 9

(a) 31° 56' 33" S 115° 43' 21" E
 (d) 31° 58' 22" S 115° 44' 15" E

(b) 31° 56' 33" S 115° 44' 54" E
 (e) 31° 58' 54" S 115° 44' 36" E

(c) 31° 57' 05" S 115° 45' 14" E
 (f) 31° 58' 54" S 115° 43' 21" E.

YMMM/R140A Garden Island

Nature of Activity Explosive storage
Vertical Limits SFC-1 500
Chart Aus 111

Administrative Authority Navy
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* Explosive demolition*Vertical Limits* 1 500-4 000*Chart* Aus 111

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

Administrative Authority Navy*Times of Use* Notam*Chartlet* 9**YMMM/R144 Stirling***Nature of Activity* Gunnery and military flying*Vertical Limits* SFC-2 000*Chart* Aus 417

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

Administrative Authority Navy*Times of Use* Notam*Chartlet* 9**YMMM/R146A Lancelin***Nature of Activity* Firing*Vertical Limits* SFC-FL700*Chart* Aus 753 and Aus 754

(a) 30° 54' 00" S 114° 56' 00" E

(d) 31° 07' 30" S 115° 05' 00" E.

(b) 30° 45' 30" S 115° 17' 30" E

(c) 30° 55' 00" S 115° 24' 00" E

Administrative Authority Navy*Times of Use* Notam*Chartlet* 9**YMMM/R146B Lancelin***Nature of Activity* Firing*Vertical Limits* SFC-FL260*Chart* Aus 753 and Aus 754

(a) 30° 45' 30" S 115° 17' 30" E

(d) 30° 55' 00" S 115° 24' 00" E.

(b) 30° 41' 00" S 115° 27' 00" E

(c) 30° 50' 00" S 115° 33' 00" E

Administrative Authority Navy*Times of Use* Notam*Chartlet* 9**YMMM/R146C Lancelin***Nature of Activity* Firing*Vertical Limits* SFC-FL260*Chart* Aus 753 and Aus 754

(a) 30° 41' 00" S 115° 27' 00" E

thence along the coast to

(b) 30° 45' 30" S 115° 17' 30" E

(c) 30° 47' 56" S 115° 11' 21" E

(d) 30° 38' 57" S 115° 07' 36" E.

Administrative Authority Navy*Times of Use* Notam*Chartlet* 9**YMMM/R148 Lancelin***Nature of Activity* Military flying*Vertical Limits* SFC-FL260*Chart* Aus 417

(a) 30° 00' 00" S 114° 30' 00" E

(c) 30° 47' 56" S 115° 11' 21" E

(f) 31° 40' 00" S 114° 30' 00" E.

(b) 30° 15' 32" S 115° 02' 11" E

thence along the coast to

(d) 30° 54' 00" S 114° 56' 00" E

(e) 31° 07' 30" S 115° 05' 00" E

Administrative Authority Navy*Times of Use* Notam*Chartlet* 9**YMMM/R157 Lancelin***Nature of Activity* Military flying*Vertical Limits* SFC-FL260*Chart* Aus 417

(a) 31° 40' 00" S 113° 00' 00" E

(d) 31° 40' 00" S 114° 30' 00" E.

(b) 30° 00' 00" S 113° 00' 00" E

(c) 30° 00' 00" S 114° 30' 00" E

Administrative Authority Navy*Times of Use* Notam*Chartlet* 9**YMMM/R184 Lancelin***Nature of Activity* Explosive demolition*Vertical Limits* SFC-4 000*Chart* Aus 105

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

Administrative Authority Navy*Times of Use* Notam*Chartlet* 9**YBBB/R811 Curtin***Nature of Activity* Air to air firing*Vertical Limits* Notam*Chart* Aus 4722

(a) 16° 04' 26" S 120° 56' 17" E

(d) 17° 04' 28" S 121° 56' 18" E.

(b) 14° 04' 27" S 122° 56' 24" E

(c) 15° 04' 57" S 123° 58' 17" E

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 12

YMMM/R850A Learmonth*Nature of Activity* Military flying training*Vertical Limits* SFC-FL280*Chart* Aus 416

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' 39" 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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 8**YMMM/R850B Learmonth***Nature of Activity* Military flying training*Vertical Limits* FL280-FL600*Chart* Aus 416

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' 39" 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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 8**YMMM/R851A Learmonth***Nature of Activity* Military flying training*Vertical Limits* SFC-10 000*Chart* Aus 416

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' 39" 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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 8**YMMM/R851B Learmonth***Nature of Activity* Military flying training*Vertical Limits* 10 000-FL280*Chart* Aus 416

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' 39" 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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 8**YMMM/R851C Learmonth***Nature of Activity* Military flying training*Vertical Limits* FL280-FL600*Chart* Aus 416

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' 39" 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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 8**YMMM/R852A Learmonth***Nature of Activity* Military flying training*Vertical Limits* 10 000-FL280*Chart* Aus 416

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' 39" 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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 8**YMMM/R852B Learmonth***Nature of Activity* Military flying training*Vertical Limits* FL280-FL600*Chart* Aus 416

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' 39" 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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 8**YMMM/R853A Learmonth***Nature of Activity* Military flying training*Vertical Limits* SCF-FL280*Chart* Aus 416

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' 39" 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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 8

YMMM/R853B Learmonth

Nature of Activity Military flying training
Vertical Limits FL280-FL600
Chart Aus 416

Administrative Authority Air Force
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' 39" 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 training
Vertical Limits SFC-FL280
Chart Aus 416

Administrative Authority Air Force
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' 39" 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 training
Vertical Limits FL280-FL600
Chart Aus 416

Administrative Authority Air Force
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' 39" 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 training
Vertical Limits SFC-10 000
Chart Aus 416

Administrative Authority Air Force
Times of Use Notam
Chartlet 8

A circle of 40NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 39" E).

YMMM/R859B Learmonth

Nature of Activity Military flying training
Vertical Limits 10 000-FL280
Chart Aus 416

Administrative Authority Air Force
Times of Use Notam
Chartlet 8

A circle of 40NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 39" E).

YMMM/R859C Learmonth

Nature of Activity Military flying training
Vertical Limits FL280-FL600
Chart Aus 416

Administrative Authority Air Force
Times of Use Notam
Chartlet 8

A circle of 40NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 39" E).

YMMM/R860A Learmonth

Nature of Activity Military flying training
Vertical Limits SFC-2 500
Chart Aus 416

Administrative Authority Air Force
Times of Use Notam
Chartlet 8

A circle of 25NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 39" E).

YMMM/R860B Learmonth

Nature of Activity Military flying training
Vertical Limits 2 500-FL280
Chart Aus 416

Administrative Authority Air Force
Times of Use Notam
Chartlet 8

A circle of 25NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 39" E).

YMMM/R860C Learmonth

Nature of Activity Military flying training
Vertical Limits FL280-FL600
Chart Aus 416

Administrative Authority Air Force
Times of Use Notam
Chartlet 8

A circle of 25NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 39" E).

YMMM/R861A Learmonth

Nature of Activity Military flying training and firing
Vertical Limits SFC-FL280
Chart Aus 416

Administrative Authority Air Force
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' 39" 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 training and firing*Vertical Limits* FL280-FL950*Chart* Aus 416

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' 39" 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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 8**YMMM/R862A Learmonth***Nature of Activity* Military flying training and firing*Vertical Limits* SFC-FL280*Chart* Aus 416

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' 39" 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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 8**YMMM/R862B Learmonth***Nature of Activity* Military flying training and firing*Vertical Limits* FL280-FL950*Chart* Aus 416

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' 39" 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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 8**YMMM/R863A Learmonth***Nature of Activity* Military flying training and firing*Vertical Limits* SFC-FL280*Chart* Aus 416

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' 39" 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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 8**YMMM/R863B Learmonth***Nature of Activity* Military flying training and firing*Vertical Limits* FL280-FL950*Chart* Aus 416

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' 39" 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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 8**YMMM/R864A Learmonth***Nature of Activity* Military flying training and firing*Vertical Limits* SFC-FL280*Chart* Aus 416

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' 39" 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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 8**YMMM/R864B Learmonth***Nature of Activity* Military flying training and firing*Vertical Limits* FL280-FL950*Chart* Aus 416

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' 39" 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.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 8**YMMM/R870A Learmonth***Nature of Activity* Firing*Vertical Limits* SFC-FL250*Chart* Aus 416

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' 39" E), to 22° 06' 41" S 113° 51' 35" E.

Administrative Authority Air Force*Times of Use* Notam*Chartlet* 8

YMMM/R870B Learmonth

Nature of Activity Firing
Vertical Limits SFC-FL250
Chart Aus 416

Administrative Authority Air Force
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' 39" 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

Administrative Authority Air Force
Times of Use WS-HJ
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

Administrative 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

Administrative 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 Firing
Vertical Limits SFC-Notam
Chart Aus 778

Administrative Authority Army
Times of Use Notam
Chartlet 10

(a) 32° 49' 39" S 137° 36' 33" E (b) 32° 40' 46" S 137° 40' 04" E (c) 32° 40' 49" S 137° 46' 44" E
 (d) 32° 44' 36" S 137° 48' 35" E (e) 32° 58' 24" S 137° 42' 43" (f) 32° 53' 28" S 137° 36' 53" E.

YMMM/R254 North East Rock

Nature of Activity Firing
Vertical Limits Notam-FL200
Chart Aus 776

Administrative Authority Air Force
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 and firing
Vertical Limits SFC-FL250
Chart Aus 345

Administrative Authority Air Force
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 and firing
Vertical Limits SFC-FL600
Chart Aus 347

Administrative Authority Air Force
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/R295A Port Wakefield

Nature of Activity Firing
Vertical Limits SFC-FL250
Chart Aus 781

Administrative Authority Army
Times of Use H24
Chartlet 10

(a) 34° 27' 06" S 138° 08' 30" E (b) 34° 13' 30" S 138° 08' 30" E (c) 34° 13' 30" S 138° 11' 59" E
 thence SE along Port Wakefield Road to (d) 34° 19' 57" S 138° 16' 15" E (e) 34° 25' 18" S 138° 16' 06" E
 (f) 34° 27' 15" S 138° 13' 29" E.

YMMM/R295B Port Wakefield*Nature of Activity* Firing*Vertical Limits* FL250-Notam*Chart* Aus 781

(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.

Administrative Authority Army*Times of Use* Notam*Chartlet* 10

(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/R295C Port Wakefield*Nature of Activity* Firing*Vertical Limits* Notam*Chart* Aus 781

(a) 34° 25' 47" S 138° 15' 27" E

(d) 34° 27' 06" S 138° 08' 30" E

Administrative Authority Army*Times of Use* Notam*Chartlet* 10

(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/R295D Port Wakefield*Nature of Activity* Firing*Vertical Limits* Notam*Chart* Aus 781

(a) 34° 29' 30" S 138° 16' 30" E

(d) 34° 29' 30" S 138° 08' 30" E.

Administrative Authority Army*Times of Use* Notam*Chartlet* 10

(b) 34° 34' 00" S 138° 18' 00" E

(c) 34° 34' 00" S 138° 08' 30" E

YMMM/R295E Port Wakefield*Nature of Activity* Firing*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.

Administrative Authority Army*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/R295F Port Wakefield*Nature of Activity* Firing*Vertical Limits* SFC-Notam*Chart* Aus 781

(a) 34° 09' 00" S 138° 00' 00" E

(d) 34° 13' 30" S 138° 03' 30" E

Administrative Authority Army*Times of Use* Notam*Chartlet* 10

(b) 34° 15' 00" S 137° 54' 00" E

(e) 34° 13' 30" S 138° 11' 59" E

(c) 34° 29' 27" S 138° 03' 30" E

(f) 34° 09' 00" S 138° 05' 00" E

YMMM/R295G Port Wakefield*Nature of Activity* Firing*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

Administrative Authority Army*Times of Use* Notam*Chartlet* 10

(b) 34° 29' 27" S 138° 03' 30" E

(e) 34° 24' 00" S 138° 08' 30" E.

(c) 34° 34' 00" S 138° 06' 30" E

VICTORIA AND TASMANIA**YMMM/R323A Western Port***Nature of Activity* Firing*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.

Administrative Authority Navy*Times of Use* Notam*Chartlet* 11**YMMM/R323B Western Port***Nature of Activity* Firing*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.

Administrative Authority Navy*Times of Use* Notam*Chartlet* 11

(b) 38° 28' 55" S 145° 01' 35" E

(c) 38° 32' 23" S 144° 41' 41" E

YMMM/R332 Hanns Inlet*Nature of Activity* Radar flares*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.

Administrative Authority Navy*Times of Use* H24*Chartlet* 11

YMMM/R339 Cape Schanck*Nature of Activity* Gunnery, military flying and naval activity*Administrative Authority* Navy*Vertical Limits* Notam-FL550*Times of Use* Notam*Chart* Aus 788 and Aus 801*Chartlet* 11

(a) 38° 51' 00" S 144° 21' 00" E

(b) 38° 38' 00" S 144° 41' 00" E

(c) 38° 36' 16" S 144° 43' 28" 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

(e) 38° 49' 30" S 144° 56' 30" E

(f) 39° 02' 00" S 144° 34' 00" E.

YMMM/R362A Stony Head*Nature of Activity* Firing*Administrative Authority* Army*Vertical Limits* SFC-3 500*Times of Use* Notam*Chart* Aus 798*Chartlet* 11

(a) 41° 03' 10" S 146° 56' 25" E

(b) 41° 01' 44" S 146° 55' 54" E

thence along the coast to

(c) 41° 00' 01" S 147° 04' 50" E

(d) 41° 03' 54" S 147° 04' 06" E.

YMMM/R362B Stony Head*Nature of Activity* Firing*Administrative Authority* Army*Vertical Limits* 3 500-Notam*Times of Use* Notam*Chart* Aus 798*Chartlet* 11

(a) 41° 03' 10" S 146° 56' 25" E

(b) 41° 01' 44" S 146° 55' 54" E

thence along the coast to

(c) 41° 00' 01" S 147° 04' 50" E

(d) 41° 03' 54" S 147° 04' 06" E.

YMMM/R362C Stony Head*Nature of Activity* Firing*Administrative Authority* Army*Vertical Limits* SFC-Notam*Times of Use* Notam*Chart* Aus 798*Chartlet* 11

(a) 40° 56' 30" S 146° 54' 00" E

(b) 40° 56' 30" S 147° 05' 30" E

(c) 41° 00' 01" S 147° 04' 50" E

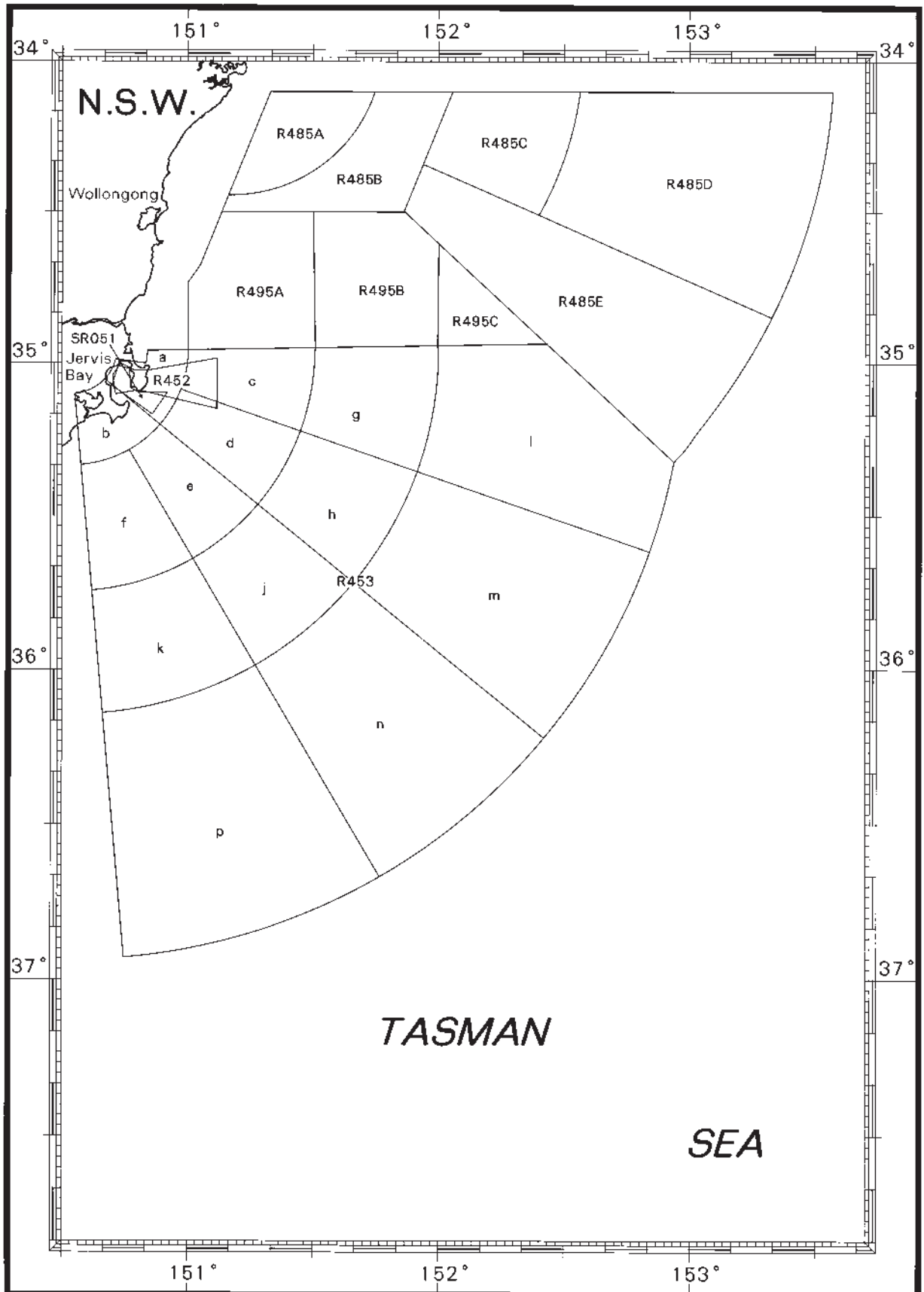
thence along the coast to

(d) 41° 01' 44" S 146° 55' 54" E.

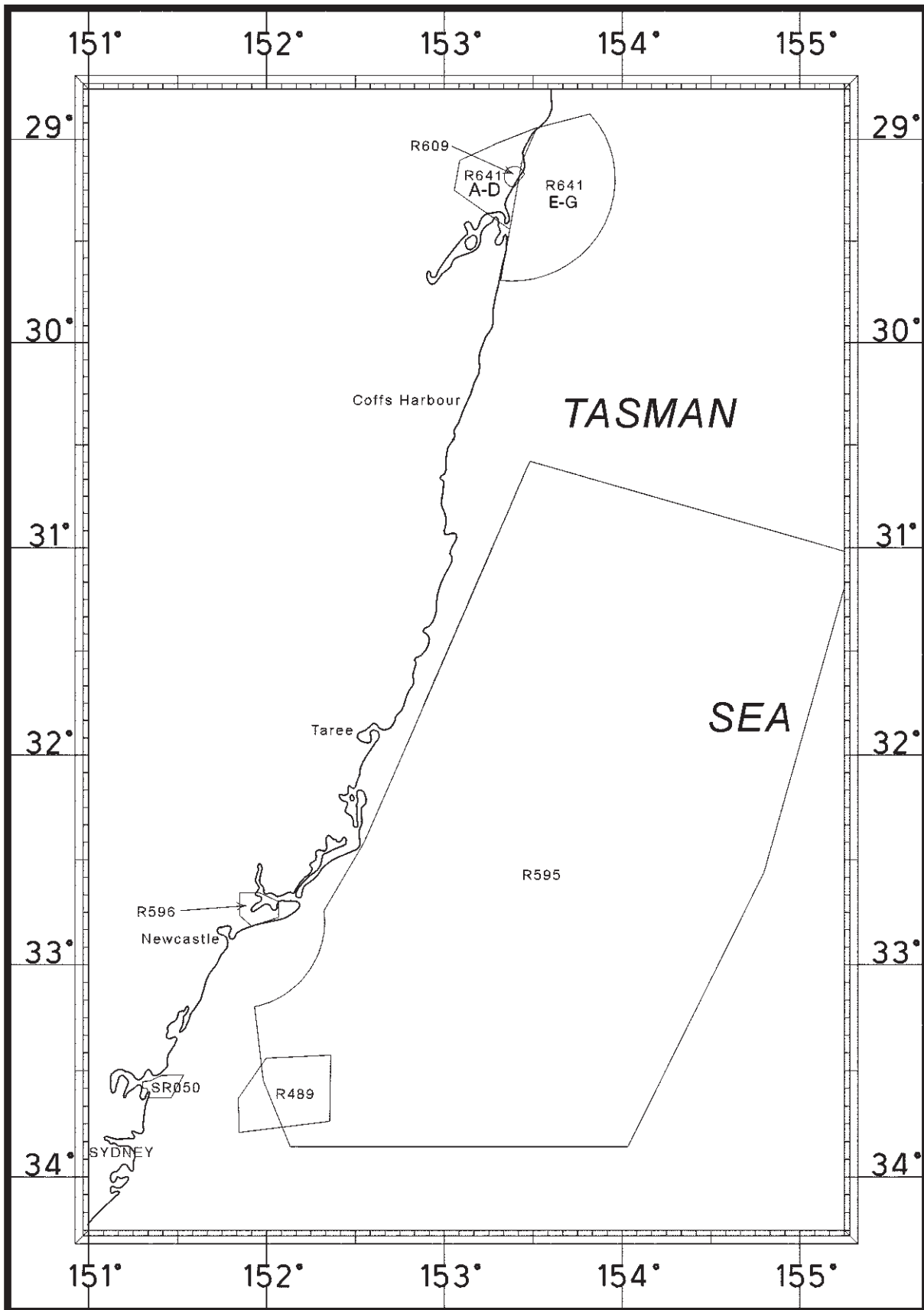
YMMM/R374 Swan Island*Nature of Activity* Firing*Administrative Authority* Army*Vertical Limits* SFC-1 500*Times of Use* H24*Chart* Aus 158*Chartlet* 11

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

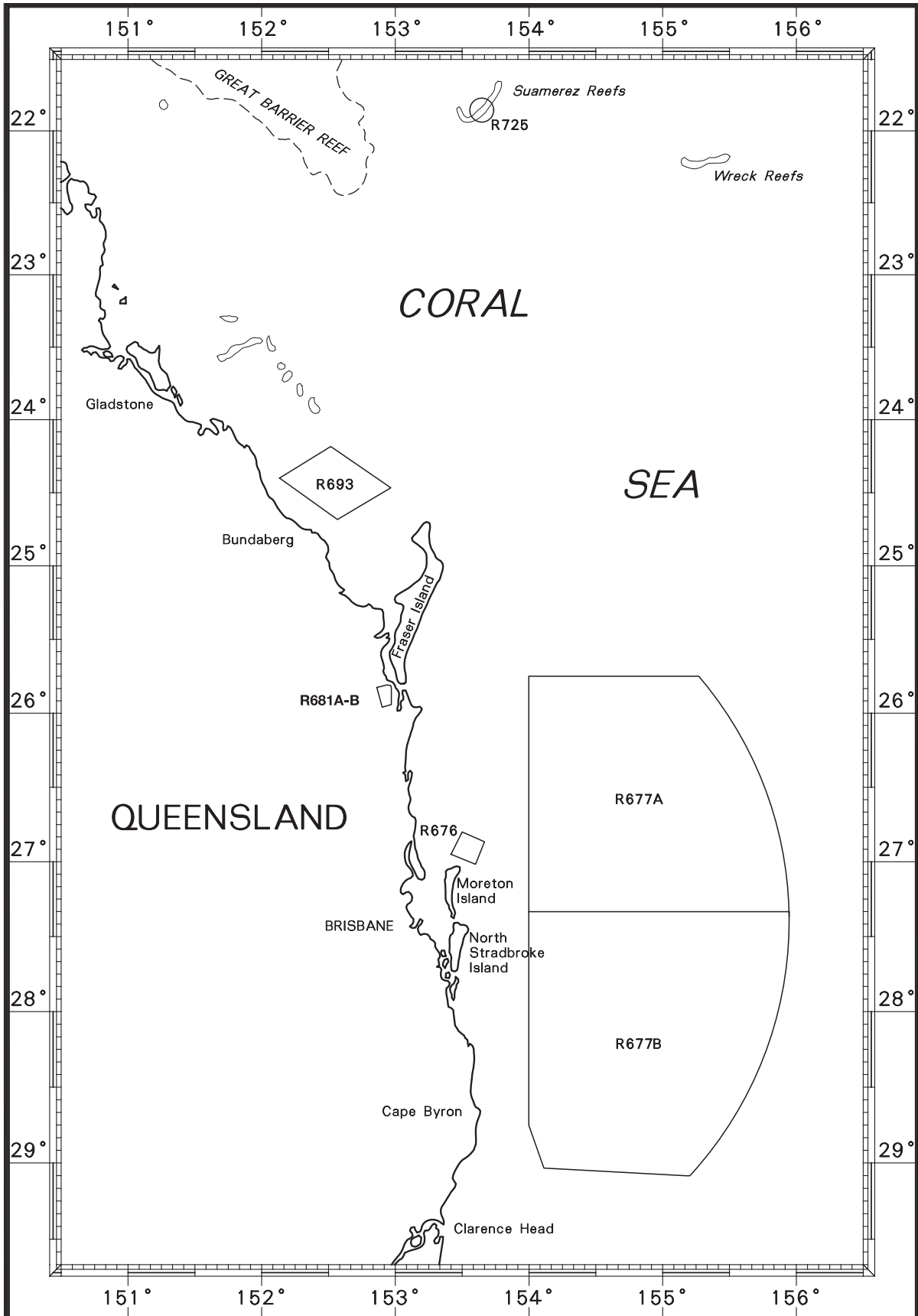
Tasman Sea – Jervis Bay



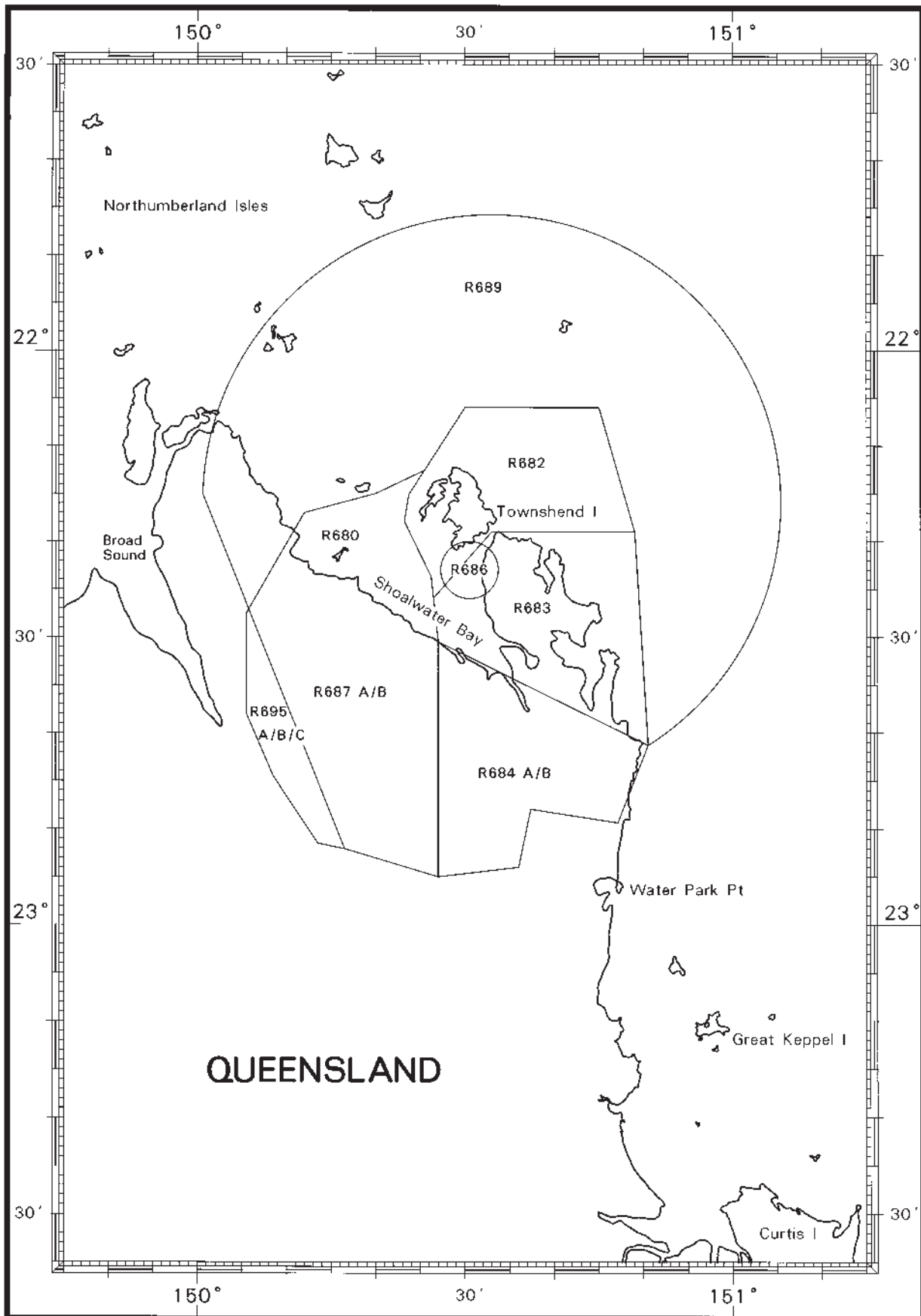
Tasman Sea – Newcastle



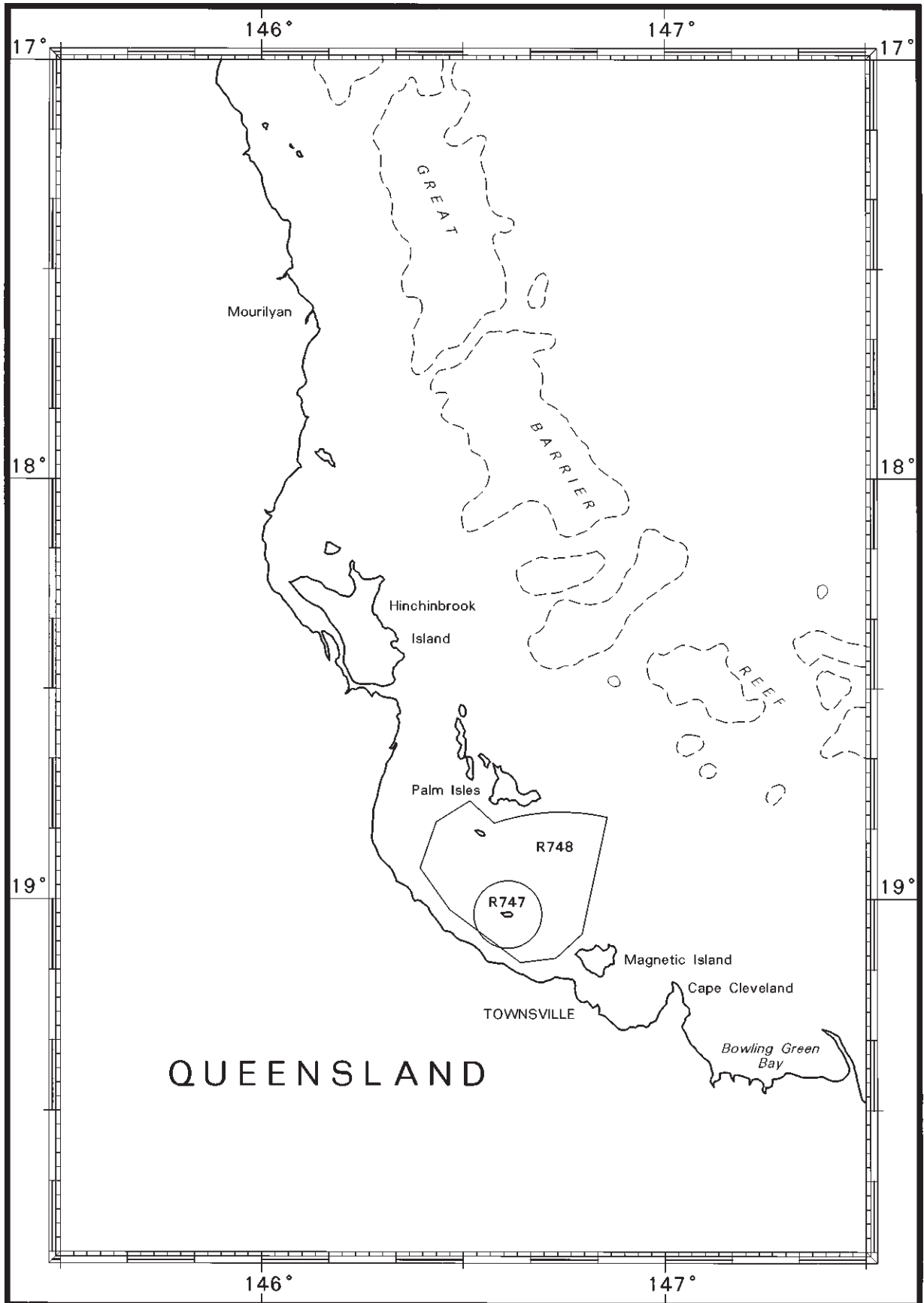
Queensland South – Coral Sea



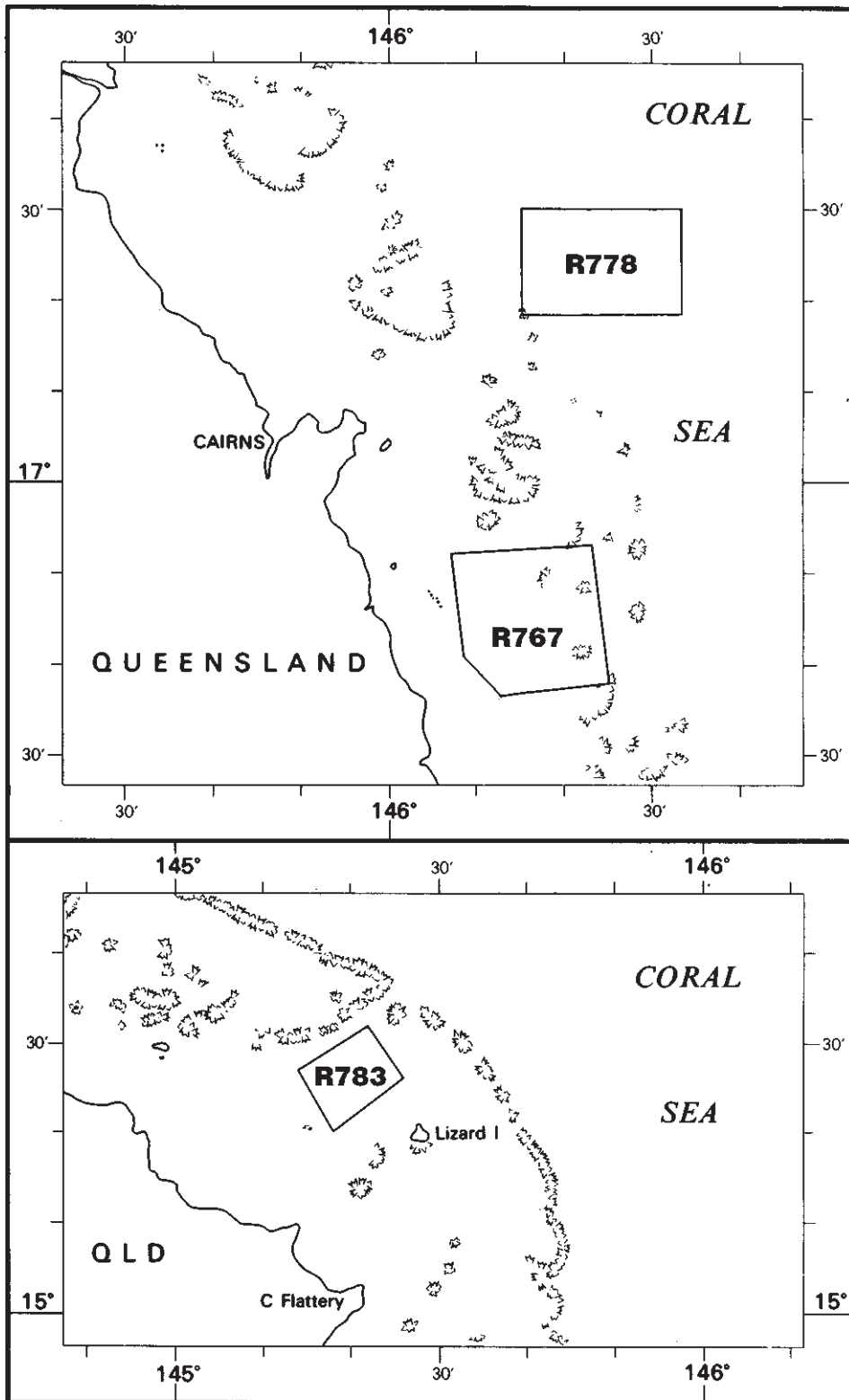
Shoalwater Bay



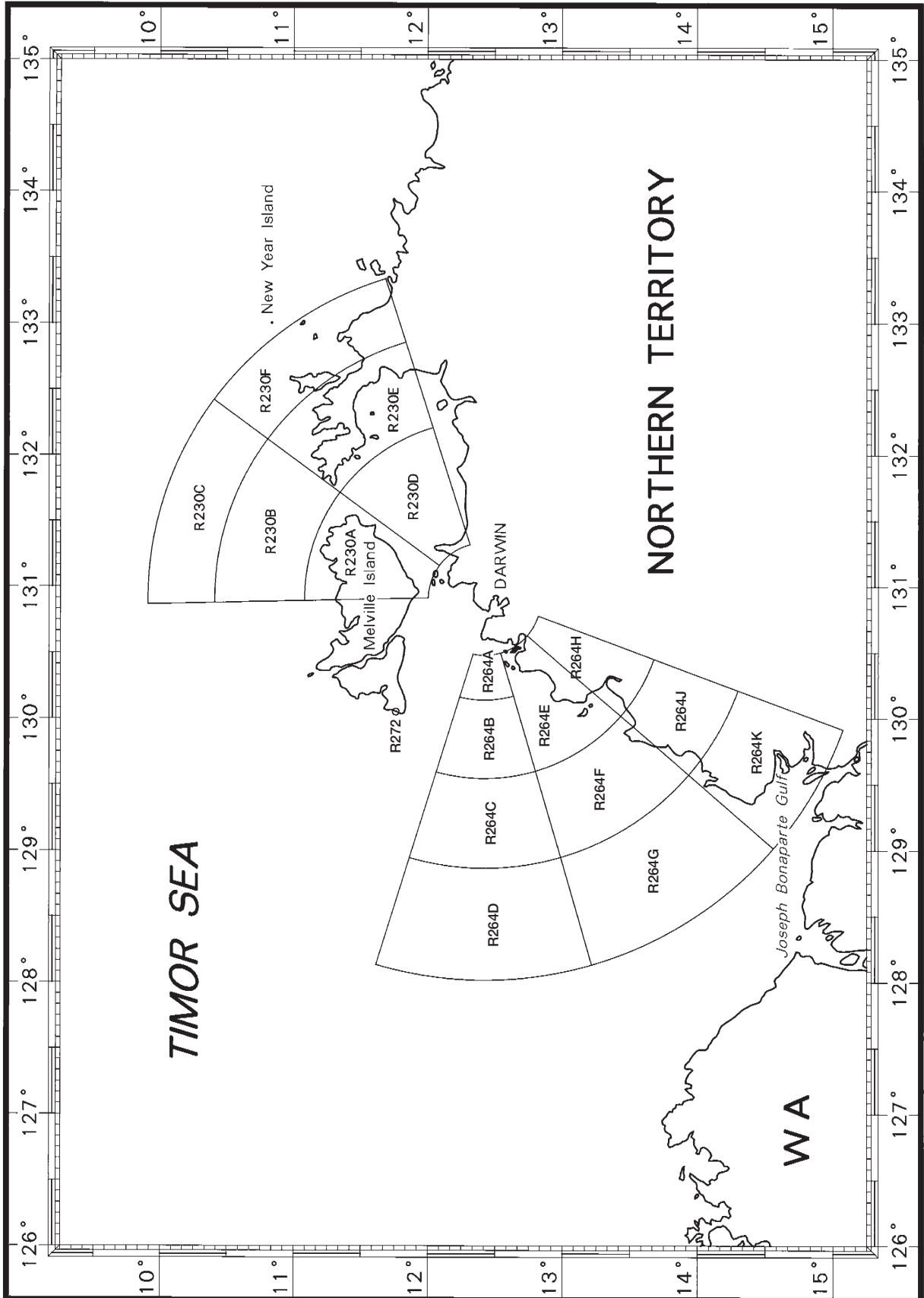
Townsville



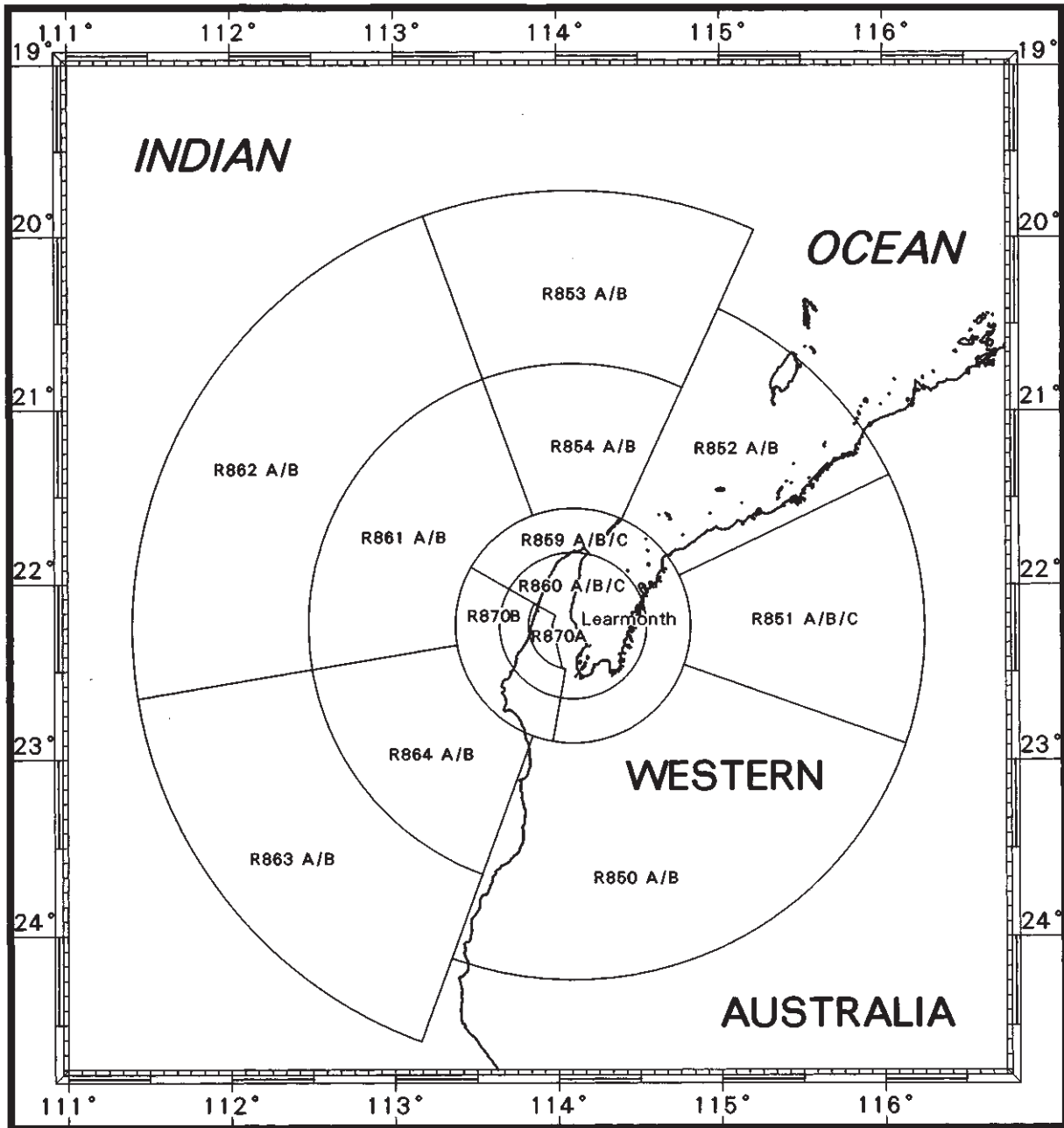
Queensland North - Coral Sea



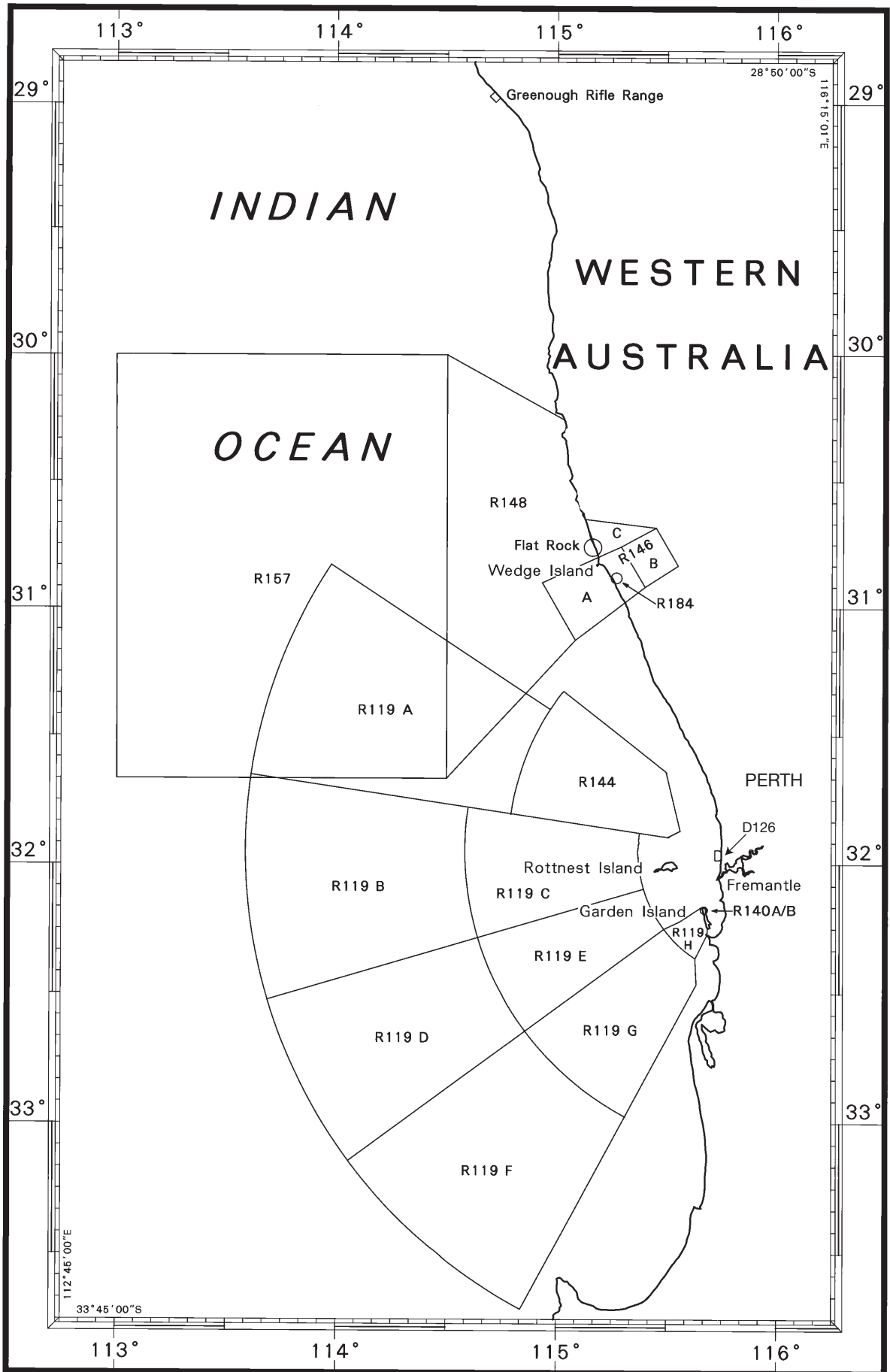
Northern Territory



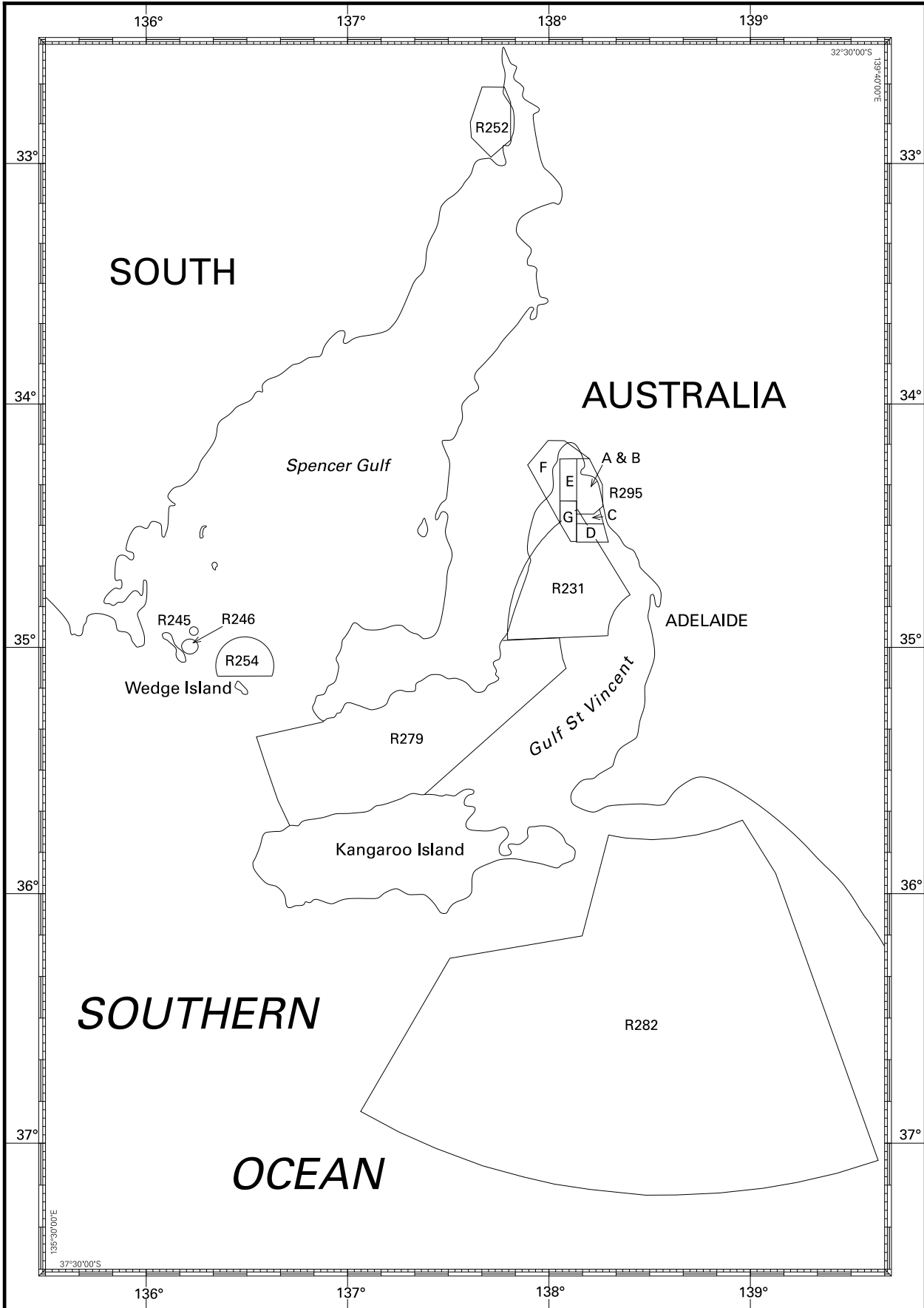
North West Cape



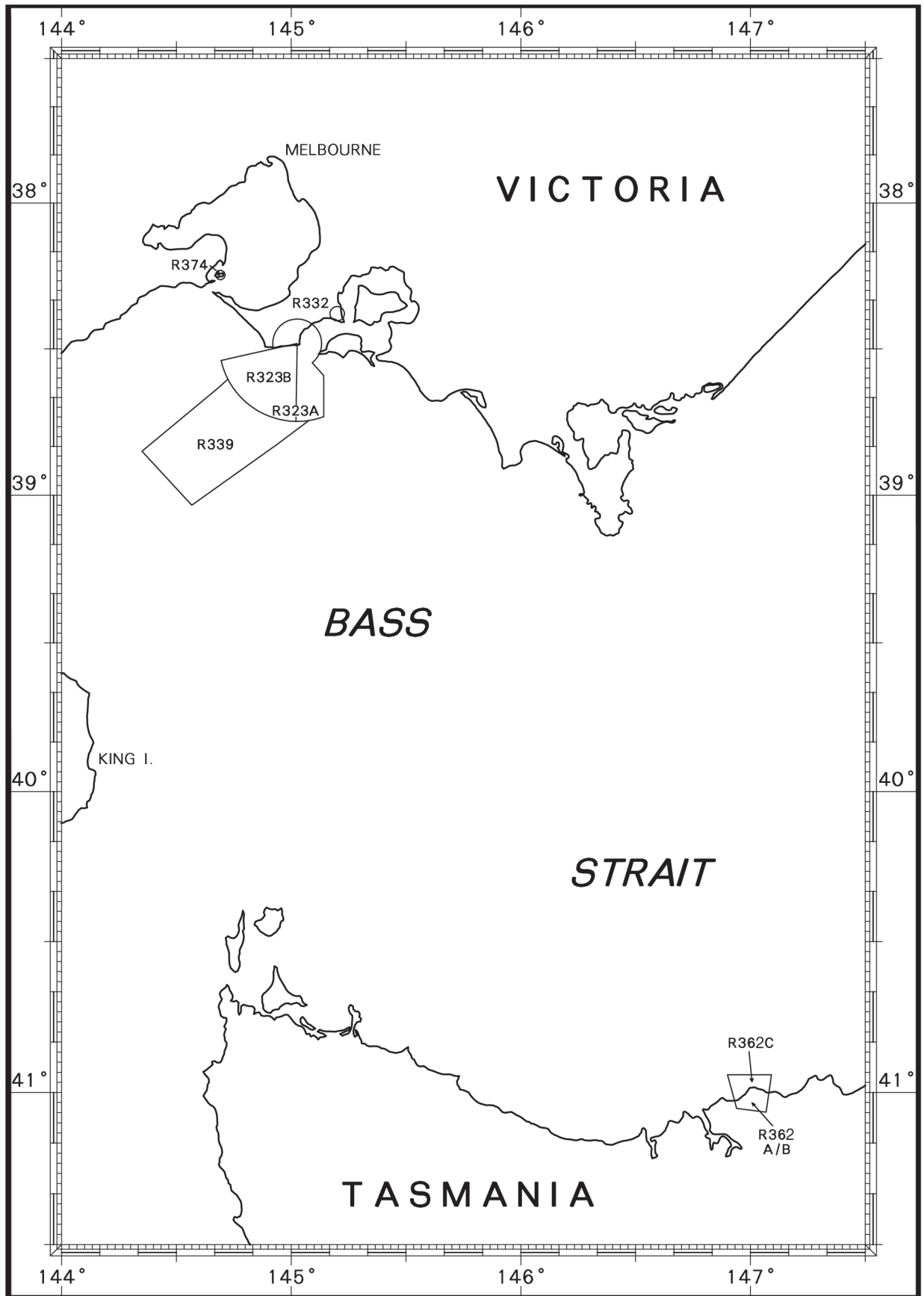
Western Australia - South West



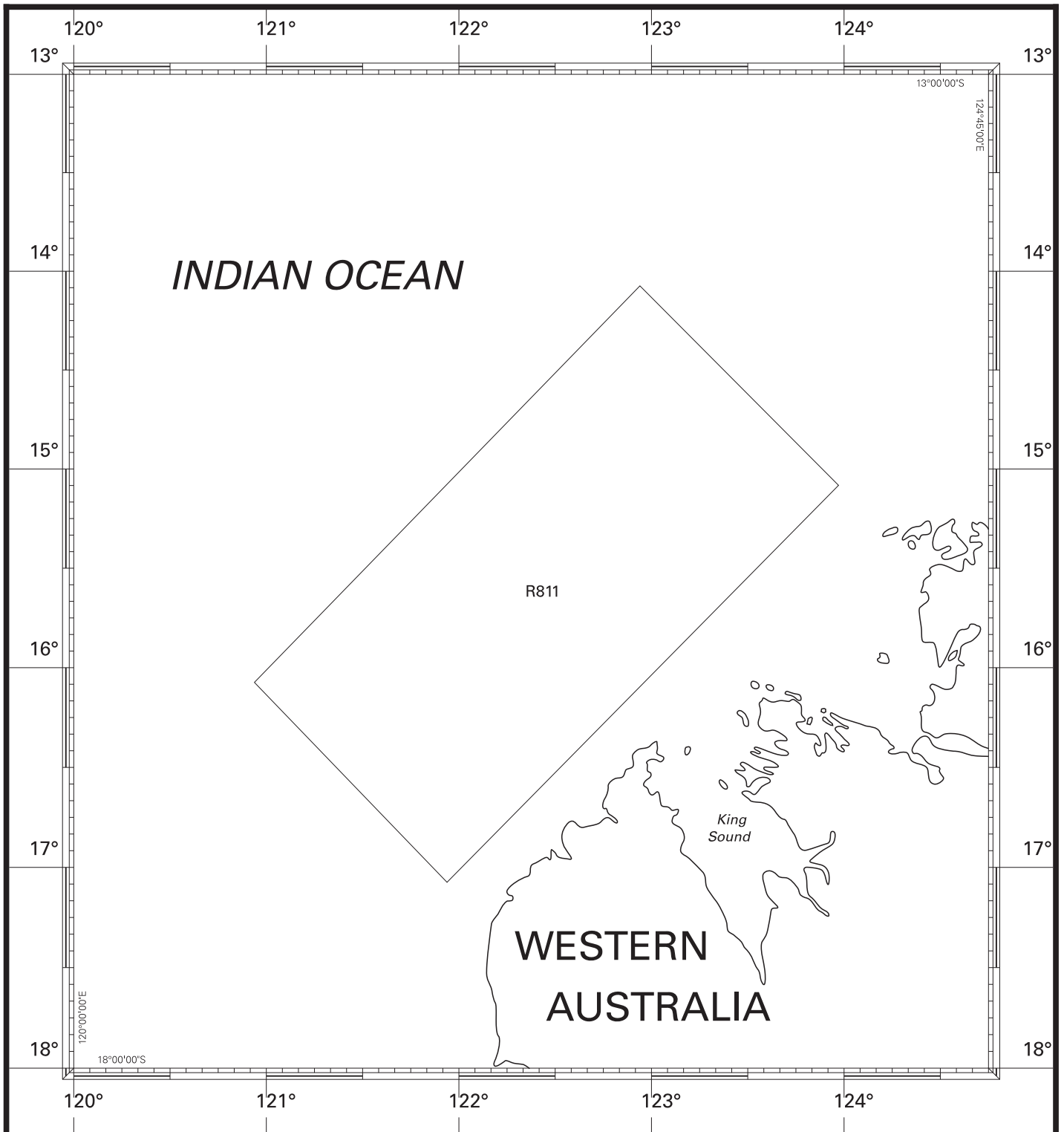
South Australia



Bass Strait - Victoria Tasmania



Western Australia



**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.

Administrative 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.

Administrative Authority Department of Defence

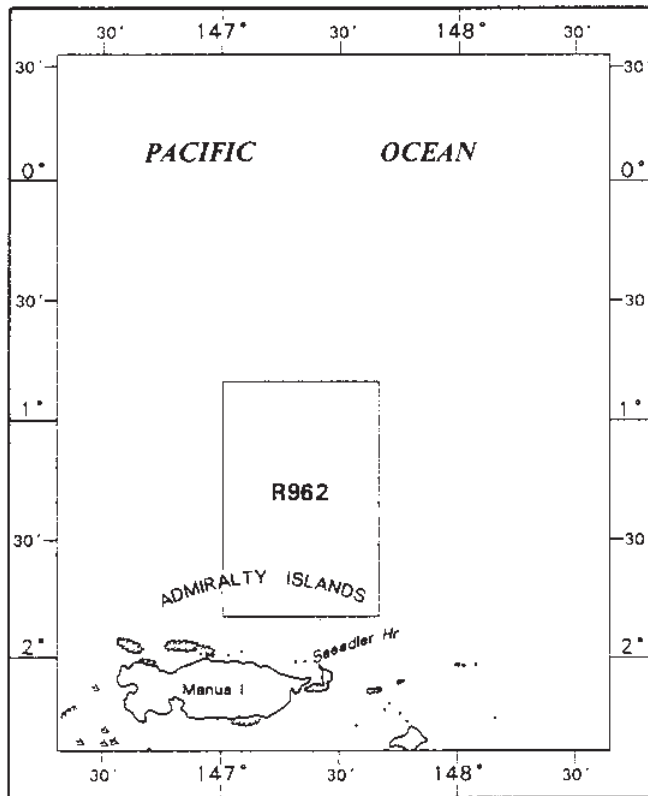
Times of Use Notam

Chartlet 2

(b) 0° 47' 00" S 147° 40' 00" E

(c) 1° 47' 00" S 147° 40' 00" E

1



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 Lighthouse Authorities (IALA). In particular, the transmissions comply with the International Telecommunications Union - *Radio Recommendation 823-1 on Technical Characteristics of Differential Transmissions for Global Navigation Satellite Systems (GNSS) from Radio Beacons in the Frequency Bands 285-325 kHz (283.5-315 kHz in Region 1) (1992)*.

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:

Site	Position (WGS84)	Frequency
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
Cornly 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 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
- 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:

Navigation Safety
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° 91'.86 E
Bayu-Undan Floating Production Facility	K				11° 02'.97 S 126° 37'.08 E
Bayu-Undan Production Platform	X				11° 04'.38 S 126° 40'.86 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	U				21° 28'.82 S 114° 00'.51 E
Fremantle Fairway Buoy	C	9GHz 3GHz			31° 57'.20 S 115° 38'.91 E
Geraldton Fairway Buoy	G	9GHz 3GHz			28° 45'.92 S 114° 32'.72 E
*Imperieuse Reef	Q	9GHz 3GHz	16-23 20-25	32	17° 31'.32 S 118° 57'.18 E
Jabiru Floating Production Facility	D	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'.22 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° 36'.00 S 148° 11'.48 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° 38'.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'.16 S 151° 30'.97 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°43'.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 antennae are:

3cm band – 5m and 30m
10cm band – 15m and 40m

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)

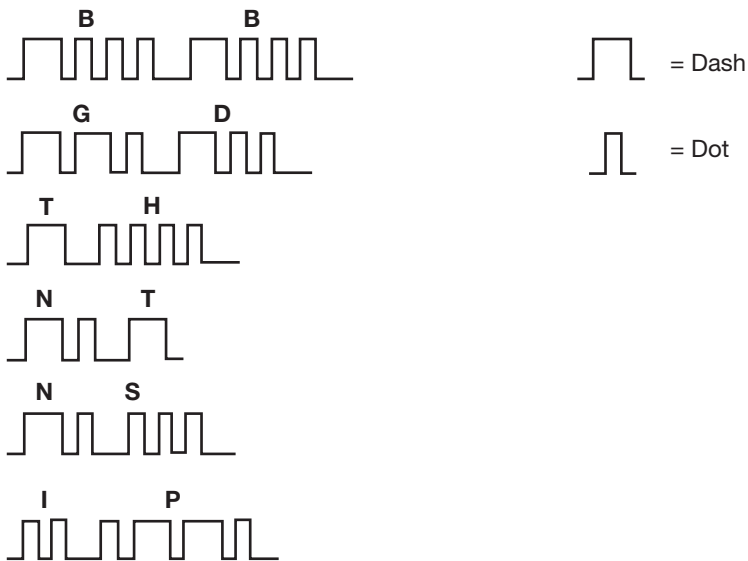
10C. TORRES STRAIT TIDE GAUGES

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

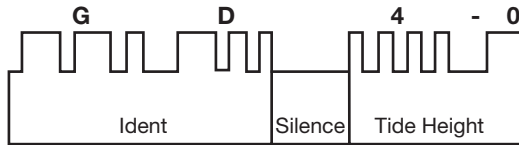
<i>Name and Identification</i>	<i>Position (WGS 84)</i>	<i>Hours of Operation</i>
Booby Island BB	10° 36' 09" S 141° 54' 36" E	H 24
Goods Island GD	10° 33' 53" S 142° 08' 44" E	H 24
Turtle Head TH (Hammond Island)	10° 31' 14" S 142° 12' 47" E	H 24
Nardana (height) NT Nardana (stream) NS	10° 30' 17" S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

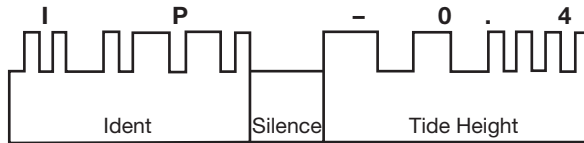
3. The tide height is transmitted as groups of pseudo morse 'dots', the number of dots in groups indicating respectively metres and tenths of metres of tide height above chart datum. A zero is indicated by a ' and negative heights indicated by a preceding 1.5 second warbling tone.
4. Tidal stream station 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 *Australian Seafarers Handbook 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 *Australian Seafarers Handbook 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 Depth Charges

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 357A	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' 27".5 S 151° 16' 17".5 E	0.05	10
Port Jackson	Aus 201	33° 50' 35".0 S 151° 16' 19".0 E	0.05	10
Port Jackson	Aus 201	33° 50' 58".0 S 151° 16' 15".0 E	0.05	10
Port Jackson	Aus 201	33° 51' 02".0 S 151° 16' 13".0 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' 53".0 S 151° 22' 21".0 E	0.25	52
S of Newcastle	Aus 207	32° 59' 10".5 S 151° 48' 47".0 E	0.5	33
Queensland-				
NW Channel	Aus 235	26° 54' 42".0 S 153° 08' 33".0 E	0.5	10
Moreton Bay	Aus 236	27° 14' 24".0 S 153° 15' 40".0 E	0.25	13
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

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 may be encountered off the Australian coast. At present the main areas of activity are Bass Strait and off the North West Coast of Australia. Isolated rigs however, may be encountered in other areas.

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

3. 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.

Area to be Avoided in Bass Strait

8. 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.

9. 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.

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

11. Surveillance operations within a 40 nautical mile radius of position 38° 20' S 148° 00' E are carried out by military vessels and aircraft, which may use illuminants and approach close to vessels for identification.

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 *Petroleum (Submerged Lands) Act, 1967* 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 *Petroleum (Submerged Lands) Amendment Act, 1967* 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.

(AH 99/0507)

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 357A, Aus 422 & 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 357A, Aus 422 & 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.



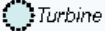







(AH 99/0514)

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	
M 28.2	Two-way Route direction arrow	
U 3	Visitors Mooring	
N 22	Limit of Marine Protected Area	
N	Ship Reporting System	

2. The following symbology is used in Australian Navigational charts and has been adopted into the International Hydrographic Organisation INT 1 (symbols and abbreviations) publication:

E 26.1, L 5.1	Wind Turbine	
E 26.2, L 5.2	Wind Farm	
L 24	Underwater turbine	
M 17	Archipelagic Sea Lane	
N 22	Particularly Sensitive Sea Area	
N 22	Great Barrier Reef Marine Park High Restriction Areas	
N 22	Environmentally Sensitive Sea Area	
N 22	Environmentally Sensitive Sea Area	
N	Designated Shipping Area	
S 17.1, S 17.2	Automatic Identification System Aid to Navigation (Fixed, Floating)	

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

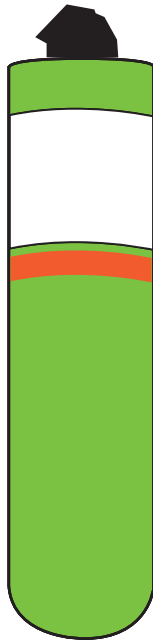
1. Mariners are warned that considerable hazard to life may result from the disregard of the following signals which denote the presence of submarines:

- (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:

<i>Signal</i>	<i>Signification</i>
White smoke candle (with flame).....	Indicates position in response to request from ship or aircraft or as required.
Yellow smoke candles	
Yellow and green pyro flares.	
Red pyro flares.....	Keep clear. I am carrying out emergency surfacing procedure. Do not stop propellers. Clear the immediate area, but stand by to render assistance.
(may be accompanied by smoke candles repeated as often as possible).	

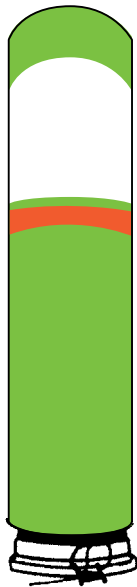
Note: If the red pyro flare signal is sighted and the submarine does not surface within 5 minutes it should be assumed that the submarine is in distress and has sunk. An immediate attempt should be made to fix the position in which the signal was sighted, after which action in accordance with *paras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

Candle Smoke White Mk 4 N



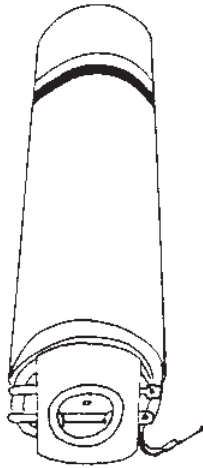
Description	Green, red and white, with red and black markings
Length	42.5cm
Diameter	9.5 cm
Content	Calcium Phosphide
Duration	15 mins – white smoke and flame

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



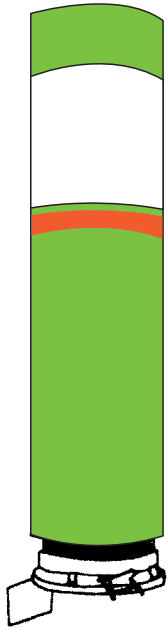
Description	White and black, with black and red markings
Length	43 cm
Diameter	10.2 cm
Content	Two detonators, one ejection charge, one grenade Signal (green/red)
Duration	5 sec – a coloured star is ejected to 91 metres.

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

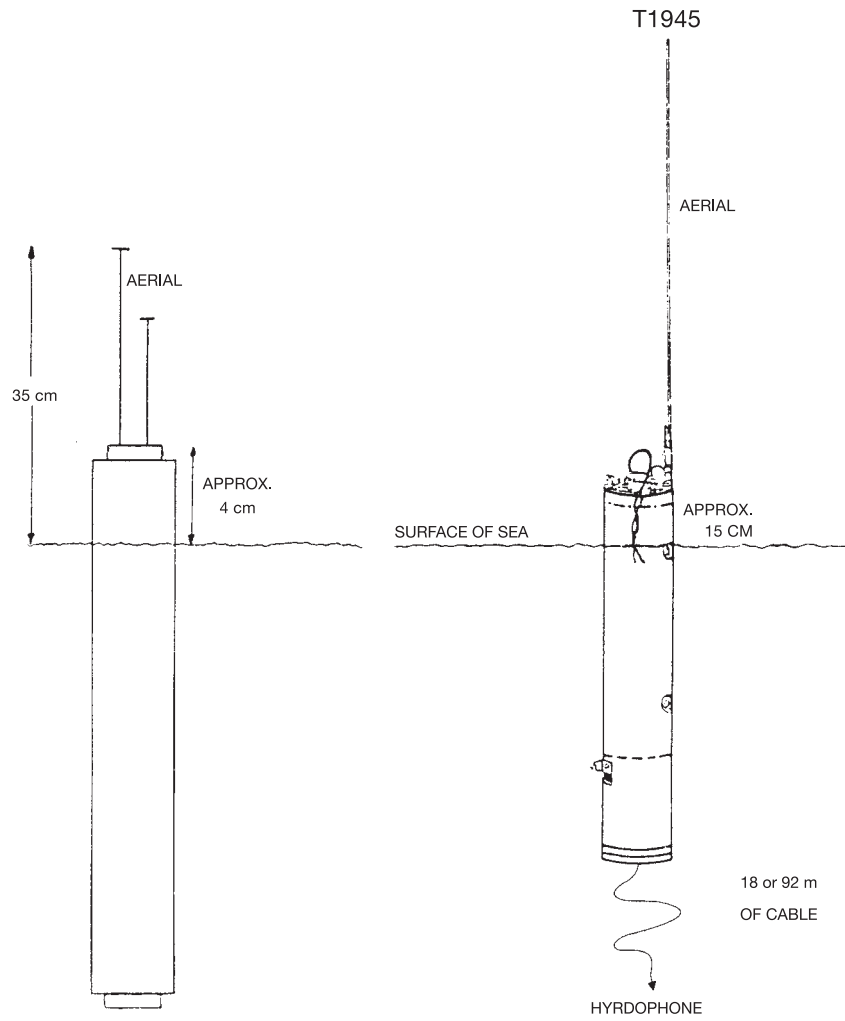


Description	Green, red and white, with red and black markings
Length	42.5cm
Diameter	9.5 cm
Content	Smoke composition — Two detonators
Duration	4 mins — yellow smoke

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

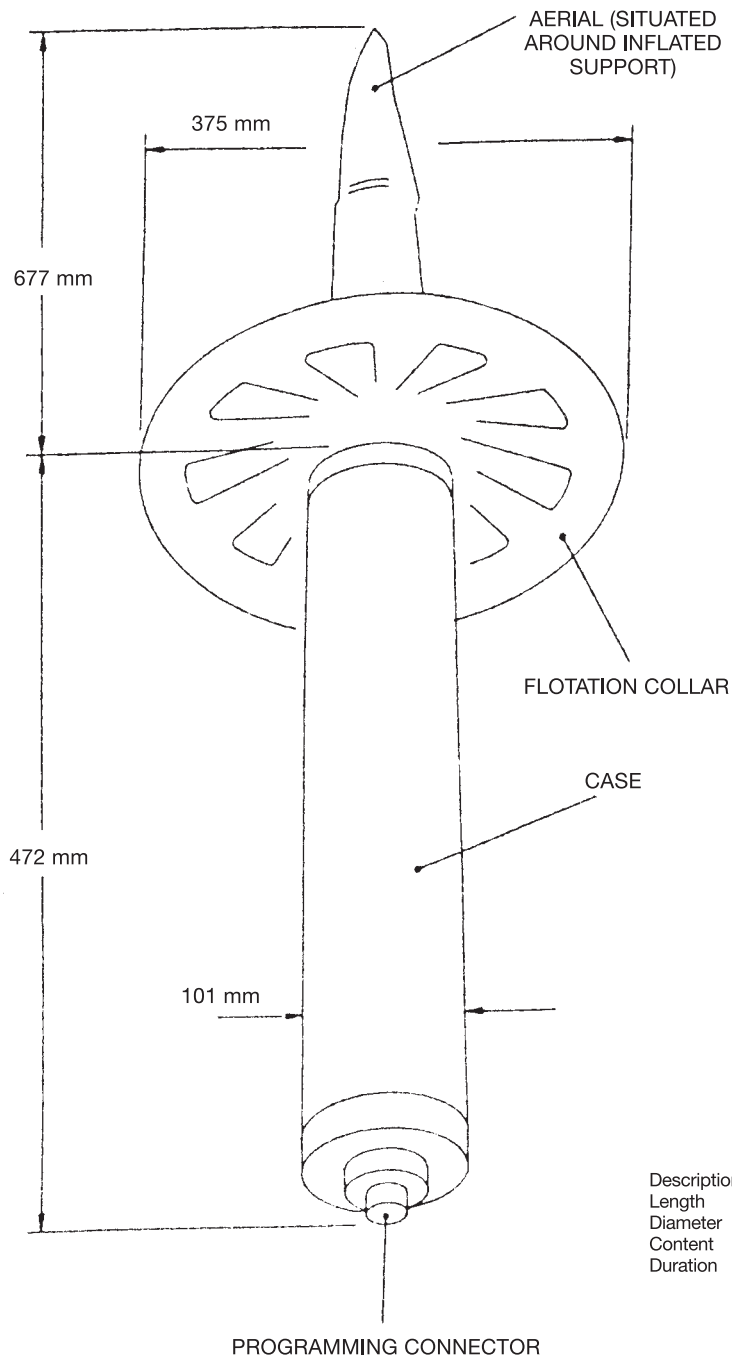
Description	Orange
Length	86cm
Diameter	10cm

Rough Drawing Sonobuoy

Description	Grey
Length	72.6m
Diameter	5.2m

Expendable Communications Buoy (ECB)

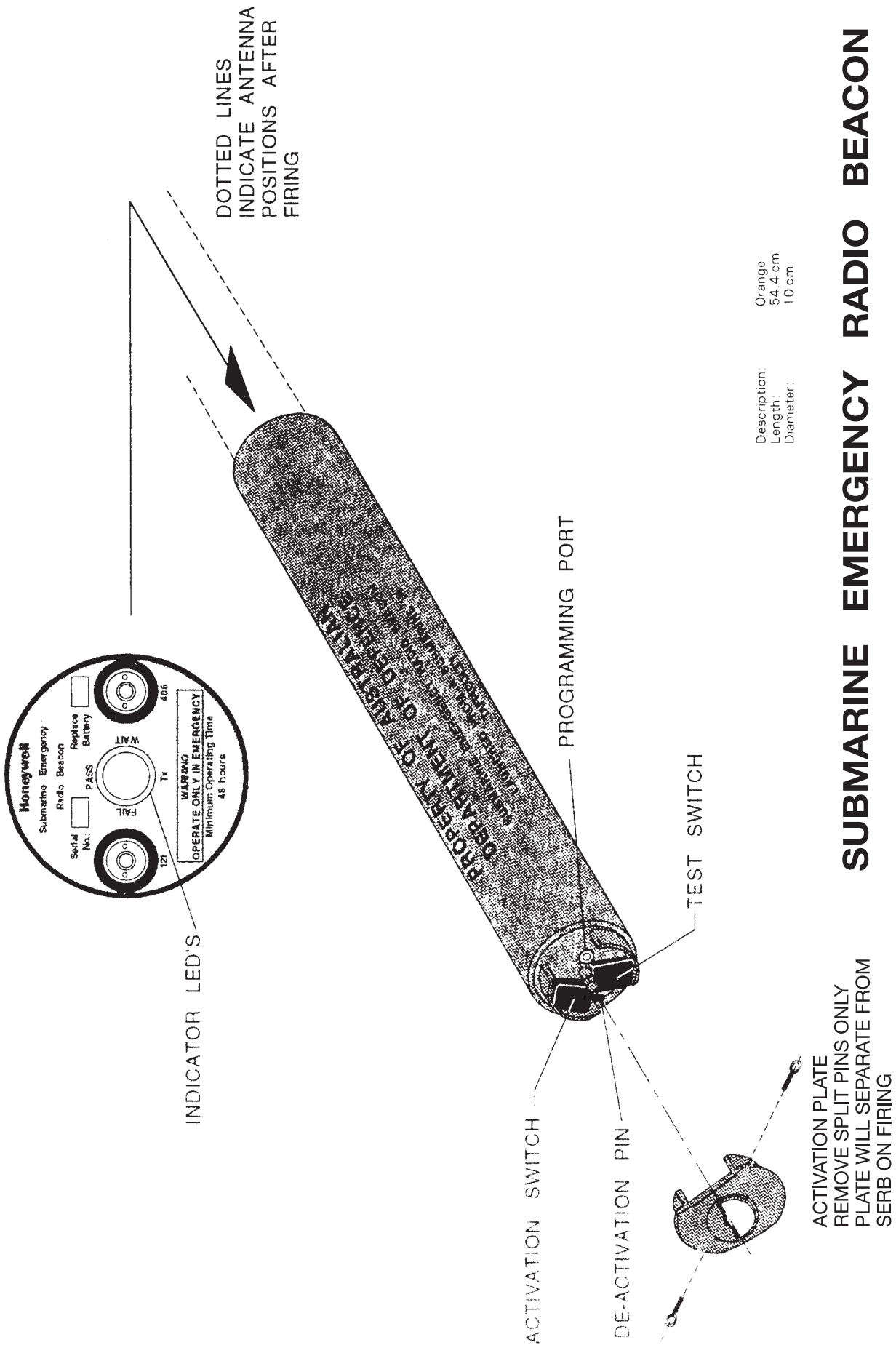
Submarine Launched Flare D4A2



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



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.

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 90*

22. The accompanying diagrams on *pages 86-91* 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 must 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.

Compulsory Pilotage Torres Strait

6. Under Australian law the following vessels must embark a pilot, licensed by the Australian Maritime Safety Authority, when transiting the Torres Strait Compulsory Pilotage Area (see *page 96*):

- 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** must 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** must have a pilot on board.

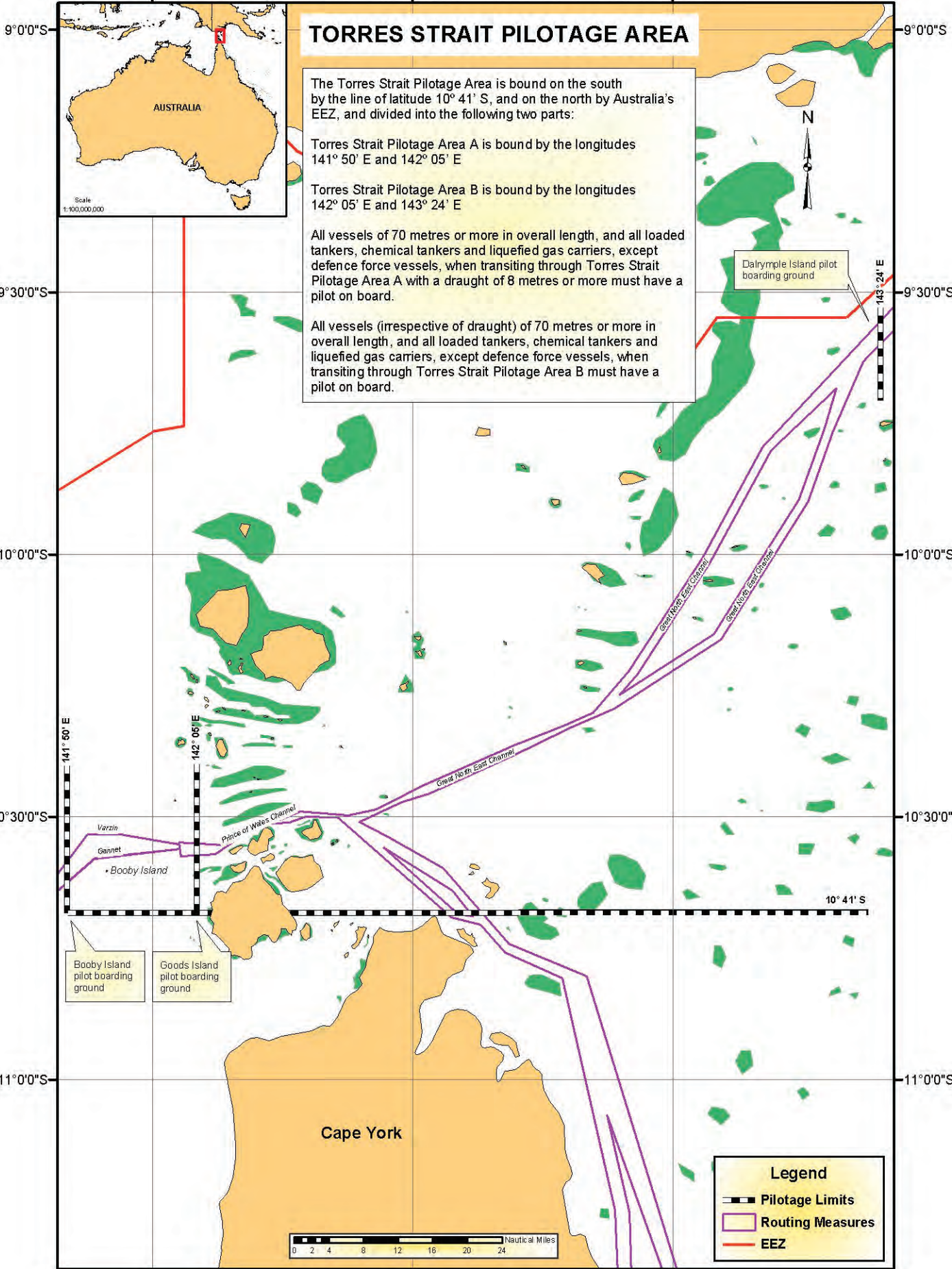
7. The Torres Strait Pilotage Area is bound on the south by the line of latitude 10° 41' S, and on the north by Australia's EEZ, and divided into the following two parts (see *page 96*):

- 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



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 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

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 must 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 must have a pilot on board.

Darlymple Island pilot boarding ground

Scale
1:100,000,000

141° 50' E

142° 05' E

143° 24' E

10° 41' S

Varzin
Gannet
Booby Island

Price of Wales Channel

Great North East Channel
Great North East Channel
Great North East Channel

Booby Island pilot boarding ground
Goods Island pilot boarding ground

Cape York

Legend

- Pilotage Limits
- Routing Measures
- EEZ



142°0'0"E

142°30'0"E

143°0'0"E

9°0'0"S

9°30'0"S

10°0'0"S

10°30'0"S

11°0'0"S

9°0'0"S

9°30'0"S

10°0'0"S

10°30'0"S

11°0'0"S

Pilot Boarding Places (PBP)

8. Vessels requiring a pilot are to arrange for the pilot to board at the following locations:

Constraints	Pilot Boarding Place	Position (WGS84)
East-bound vessels of draught of 8 metres or more	Booby Island	10° 36'.30 S, 141° 49'.80 E
East-bound vessels of draught less than 8 metres	Goods Island	10° 33'.90 S, 142° 04'.40 E
West-bound vessels	Dalrymple Island	9° 34'.00 S, 143° 24.50 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 compulsory pilotage requirements in the *Navigation Act* and Marine Orders Part 54..

10. Queries on the compulsory pilotage requirements for Torres Strait or exemptions from this requirement may be addressed to AMSA, Manager Ship Operations & Qualifications, phone 02 6279 5908, fax 02 6279 5056 or via the internet using the 'Contact Us' query tool on the AMSA site www.amsa.gov.au.

Vessel Traffic Service Great Barrier Reef and Torres Strait

11. The Australian Government operates a Vessel Traffic Service called REEF VTS in Torres Strait and the Great Barrier Reef. Full details of REEF VTS are contained in *Notice to Mariners No 22* and the Reef VTS User Manual. The User Manual is available from AMSA and Maritime Safety Queensland offices.

12. The Great Barrier Reef and Torres Strait Vessel Traffic Service (REEFVTS) is comprised of two major components:

- a mandatory Ship Reporting System (the Great Barrier Reef and Torres Strait Ship Reporting System (REEFREP):
- monitoring and surveillance systems including radar, Automatic Identification System (AIS), Automated Position Reporting via Inmarsat C (APR) and VHF Reporting.

13. The system is manned and operated on a 24 hour a day basis by Maritime Safety Queensland personnel based at the REEFVTS Centre, Radio Call Identity "REEFVTS" Radio Callsign "VZQ 641," situated at Hay Point near Mackay.

14. The following categories of ships are required to report to REEFVTS:

- All ships of 50 metres or greater in overall length;
- All oil tankers, liquefied gas carriers, chemical tankers or ships coming within the INF Code, regardless of length;
- Ships engaged in towing or pushing where it, or the ship being towed or pushed is a ship described in (a) or (b) or where the length of the tow is or exceeds 150 metres.

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 *Australian Seafarers Handbook* 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:

- 50 metres or more in overall length; or
- 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
- a chemical carrier or liquefied gas carrier, regardless of its length; or
- a ship to which the INF Code applies, regardless of its length; or
- a vessel that is adapted to carry oil or chemicals in bulk in cargo spaces; or
- 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:

- a vessel of the Defence Force; or
- a vessel of the armed service of another country, if the vessel is in Australian waters with the consent of Australia; or
- 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:
- to investigate and respond to an emergency alert;
 - to save human life or avoid the risk of injury to a person;
 - 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;
 - to carry out emergency repairs to a navigational aid;
 - 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;
 - 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*, however 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. 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.

(AA300412, AA300413)

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. REEFREP is the system identifier for the interactive mandatory ship reporting system within the Torres Strait and the inner route of the Great Barrier Reef waterways. REEFREP, in accordance with the International Convention for the Safety of Life at Sea (SOLAS) Chapter V Regulation 11, was formally adopted by the International Maritime Organization (IMO) in 1996. REEFREP is mandatory for those categories of ships listed at *para 6*.

2. For details of their obligations under REEFREP mariners are referred to *Marine Orders Part 56*, which is available at AMSA website at <http://www.amsa.gov.au>.

Purpose

3. The Queensland and Commonwealth Governments have established a suite of measures to assist in enhancing navigational safety, thereby minimising the risk of a maritime accident and consequential pollution and damage to the Great Barrier Reef marine environment. The introduction of the Great Barrier Reef and Torres Strait Vessel Traffic Service (REEFVTS) as a means to enhance navigational safety in Torres Strait and the GBR is one of these measures..

4. The primary purpose of REEFVTS is to enhance the level of navigational safety by interacting with ships transiting the region by providing information on potential traffic encounters and other navigational information.

5. REEFVTS has two input systems:

- (a) REEFREP, which provides key information communicated from ships such as entry reports, vessel characteristics, route plans, etc. and
- (b) monitoring and surveillance systems including radar, Automatic Identification System (AIS), Automated Position Reporting (APR) via Inmarsat C to accurately monitor vessel movements.

Categories of ships

6. 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 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-para 6(a), 6(b), 6(c), 6(d) or 6(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.

7. For the purposes of the requirement at *sub-para 6(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.

8. The waterways covered by REEFREP are those within the REEFVTS coverage area, including the Torres Strait between longitude 141° 45' E and 144° 00' E, including Endeavour Strait and Great North East Channel, and the waters of the Great Barrier Reef between the Australian coast and the outer edge of the Great Barrier Reef to latitude 22° S (see chartlet *page 100*).

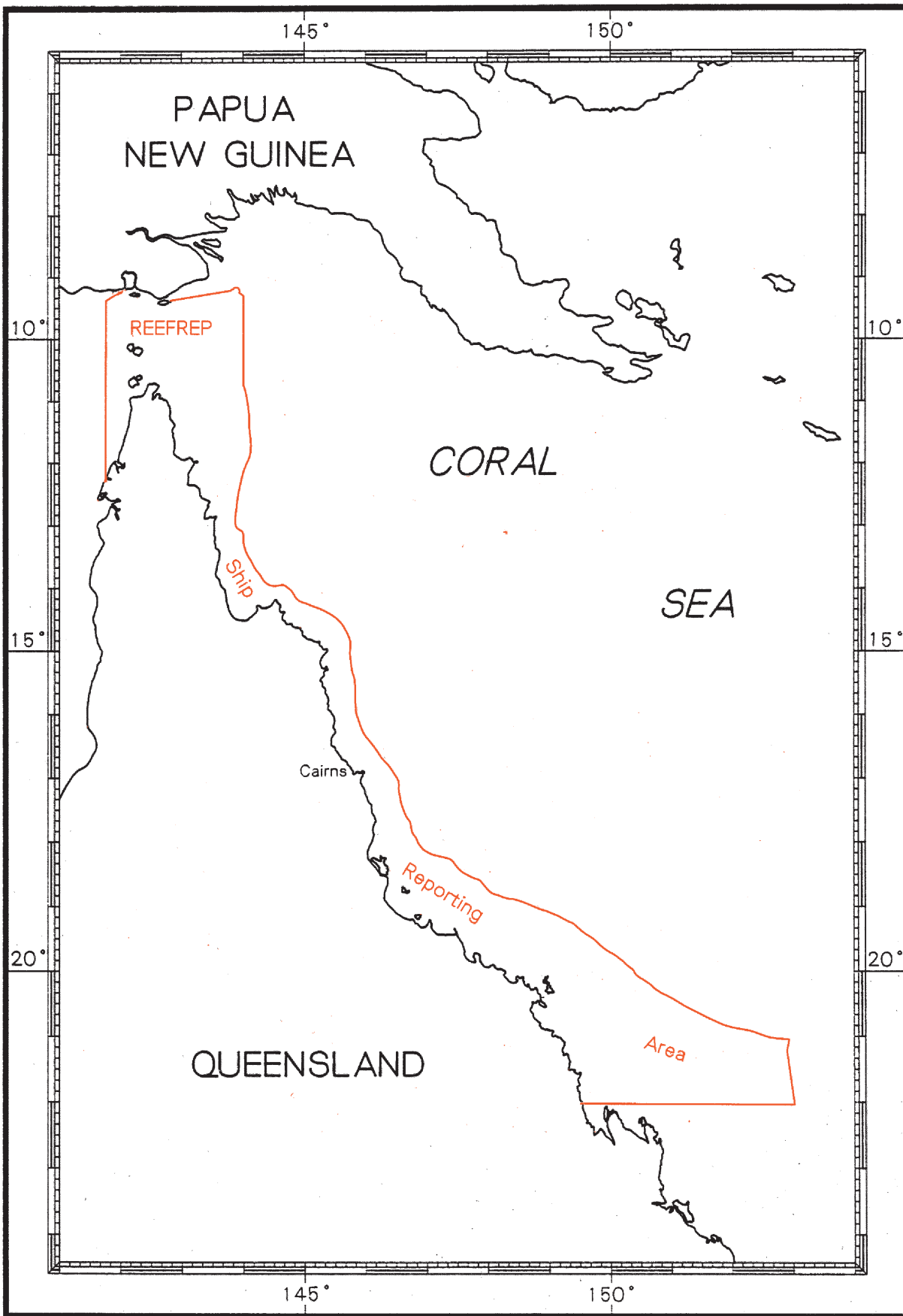
9. The Australian Hydrographic Office has produced a chart of the area, Aus 4620 (INT 620), which provides details of REEFREP including coverage, categories of ships required to report and the reporting point positions with their associated VHF channel allocations. This chart is available through normal outlets. Additionally, the Australian Maritime Safety Authority and Maritime Safety Queensland publish a booklet termed REEFGUIDE. This concise reference for safe navigation practice and pollution prevention is directed at all mariners engaged in shipping operations in the region. Copies can be obtained from either agency named above.

System Overview

10. REEFVTS is manned and operated 24 hours a day by personnel operating from the REEFVTS Centre, radio call identity "REEFVTS" radio call sign "VZQ 641", situated at Hay Point, near Mackay.

11. REEFVTS compiles and maintains a traffic image of shipping using REEFREP information communicated by ships (Passage Plans, VHF reports) and information received from other sensors (Radar, AIS and APR via Inmarsat C). This traffic image allows REEFVTS to provide ship traffic information and other navigational safety related information to shipping within the REEFVTS waters. In summary, the information includes:

- (a) ship traffic information,
- (b) navigational assistance, and
- (c) maritime safety information



12. To enhance navigational and vessel safety and to protect the marine environment REEFVTS may issue advisories, or respond to vessel requests for information on reported conditions within the REEFVTS waters, such as:
- anticipated vessel encounters;
 - vessel congestion in navigationally complex areas;
 - environmental conditions;
 - aids to navigation status;
 - sightings of hazardous conditions, pollution or other incidents;
 - temporary measures in effect; or
 - other information or special circumstances.
13. REEFVTS may not have first hand knowledge of all hazardous conditions that exist in REEFVTS waters. Such hazards should be reported to REEFVTS so they may pass that information on to other mariners.

Ship Reporting Requirements

14. For further information regarding REEFVTS, reporting procedures including message format, communications arrangements and reporting points are provided in the publication *REEFVTS User Manual*, available free of charge from:
- any office of the Australian Maritime Safety Authority (AMSA),
 - Maritime Safety Queensland in Brisbane, or
 - offices of the Regional Harbour Master in Queensland ports.

Reports and Procedures

15. The master of a ship navigating in REEFVTS waters must report to REEFVTS the following reports preferably by an Inmarsat C message or VHF voice. Where neither is available then alternative means should be used. The following reports need to be provided as applicable:
- Pre-Entry Position Report.
 - Entry Report.
 - Passage Report, if passage details have not been previously provided in an Entry Report.
 - Route Deviation Report.
 - Intermediate Position Reports.
 - Defect Reports, only if applicable.
 - Final Report.

Pre-Entry Position report (PER)

16. A Pre-Entry position report must be made in respect of a ship at least two hours prior to:
- entering the REEFVTS waterways area; or
 - departing from a port within REEFVTS waters

17. 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)

18. An Entry Report must be made in respect of a ship as soon as it:
- enters the REEFVTS waters; or
 - departs from a port within REEFVTS waters.

19. This report provides a ship's details, intentions and passage through REEFVTS waterways. Ships are encouraged to provide a passage plan when providing an Entry Report. However, it is recognised that at this stage in a ship's passage, it is unlikely that a pilot is embarked and it therefore may not be possible to provide a detailed passage plan.

20. Should a ship include the required passage details using one of the methods described below, then it will not be necessary to provide a separate passage plan report within an hour of entering REEFVTS waters.

Passage Plan

21. Adequate route information must be provided to REEFVTS to ensure quality ship traffic information can be provided to transiting vessels. Passage Plans are to be provided by one or more of the following methods:
- Standard Route Plan, or
 - Mandatory Reporting Points, or
 - Waypoints.

22. If a Passage Plan is not included in an Entry Report, then a Passage Plan Report must be provided within one hour following a ship's entry into REEFVTS waters, or departure from a port within REEFVTS waters.

Route Deviation Report

23. Any deviation from a previously submitted Passage Plan must be provided to REEFVTS, preferably prior to the deviation. However, it is recognised that some deviations may be made with little notice and in such instances these must be reported to REEFVTS within 15 minutes of the deviation taking place and using a revised Passage Plan Report.

Intermediate Position Reports (PR)

24. Automated Position Reporting (APR) via Inmarsat-C is the primary mechanism for ships to provide Intermediate Position Reports while transiting REEFVTS waters. REEFVTS will generally carry out APR remotely without any intervention by a ship's officers.

25. In ships fitted with first generation Inmarsat-C terminals, which do not support remote programming, the terminals will be required to be programmed onboard for Intermediate Position Reports to be sent automatically. Instructions relating to programming of these terminals can be obtained from REEFVTS.

26. Ships providing Intermediate Position Reports via APR must still comply with the other REEFREP reporting requirements of Pre-Entry Position Reports, Entry Reports, Passage Plan Reports (if appropriate), Route Deviation Reports (if appropriate), Defect Reports (if appropriate), and Exit Reports.

27. If a ship is unable to provide Intermediate Position Reports via APR, brief position reports must be provided on an hourly basis or as advised by the VTS operators.

Defect Report (DR)

28. Safety related reports must be provided without delay should a ship suffer damage, failure or breakdown affecting the safety of the ship, or if a ship makes a marked deviation from a route, course or speed previously advised. 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 waters; and
- (b) arriving at a port within the REEFVTS area.

30. When a ship exits REEFVTS waters, it will be necessary to indicate whether the ship intends continuing to report to AUSREP for the remainder of its voyage and, if so, the time of its next report or, if arriving at a port within the area, whether this is its Final Report to AUSREP.

Primary Communications

31. There are two primary means of communication with REEFVTS:

- (a) Inmarsat C using special access code (SAC) 861 via the Perth LES (212). Messages sent will be reverse charged to REEFVTS.
- (b) VHF Radio, depending on a ship's position REEFVTS can be contacted on VHF channels 1, 5, 18 and 19 (radio call sign REEFVTS) 24 hours a day.

32. The language to be used for reports in the REEFVTS system is English, using the IMO's Standard Marine Vocabulary where necessary.

Inmarsat C

33. Messages sent to REEFVTS can be reverse charged by setting up an Inmarsat C terminal's address book to use special access code (SAC) 861 via the Perth LES (212). When setting up the address book entry for sending to SAC861, select ASCII, or 7-bit or IA5 for data presentation or character code. Alternatively, messages can be sent to REEFVTS at a cost to the vessel by email reefvts@rcs1.amsa.gov.au.

VHF Communications

34. A VHF radio network is employed along the Queensland coast and on islands in the Torres Strait to allow mariners to contact REEFVTS. Mariners are reminded of their responsibility under the Safety of Life at Sea (SOLAS) Convention provisions to maintain a continuous listening watch on VHF radio channel 16 while at sea and for a radio watch to be maintained for broadcasts of maritime safety information on the appropriate frequency or frequencies on which such information is broadcast for the area in which they are navigating. Working VHF radio channels are dependant on a ship's position in relation to reporting points. The relationship between VHF channels and associated Mandatory Reporting points is listed below:

Name of reporting point and Aus chart designation	VHF Working Channel	Name of reporting point and Aus chart designation	VHF Working Channel	Name of reporting point and Aus chart designation	VHF Working Channel
Bramble (A)	18	Cape Flattery (M1)	19	Bowling South (T)	19
Daru (B)	18	Two Isles (M)	19	Blossom (U)	5
Twin (C)	19	Gubbins East (N)	19	Abbot Point (T1)	5
Thursday Island (D1)	19	Gubbins West (O)	19	Molle (<i>southbound</i>) (V)	18
Alpha North (F)	19	Grafton Passage (P)	5	Edward (X)	18
Booby (D)	19	Cairns (P1)	5	Cid Harbour (V1)	18
Alpha South (G)	19	Mourilyan (Q1)	18	Shaw (<i>northbound</i>) (W)	18
Endeavour (E)	19	Barnard (Q)	18	Creal (Y)	19
Shortland (H)	19	Palm Passage (R)	18	Mackay (Y1)	19
Hannibal (J)	5	Lucinda (R1)	18	Hay Point-Nth (Y2)	19
Inset (J)	18	Townsville-Nth (S1)	19	Hay Point-NthEast (Y3)	19
Heath (K)	18	Townsville-Sth (S2)	19	Hay Point-Sth (Y4)	19
Pipon (L)	5	Bowling North (S)	19	High Peak (Z)	1

Alternative Communications

35. If for any reason communication is not possible via Inmarsat C or on the normal operating VHF channel, the required information must be passed by alternative means to REEFVTS using one or more of the following:

- other INMARSAT phone/fax service, or
- other (non-Inmarsat) satellite phone/fax service.

36. Contact details for REEFVTS are:

- telephone: +61 (0)7 4956 3581;
- facsimile: +61 (0)7 4956 3367; or
- email reefvts@rcs1.amsa.gov.au

37. Any failure of a ship's radio equipment that prevents the communication of required reports by either primary or alternative communication means is to be recorded in the ship's radio log book or the Official Log Book.

AUSREP Reporting

38. Ships participating in AUSREP ship reporting system **do not have to report to the RCC for AUSREP** during their transit of REEFVTS waters. A two-way automatic data exchange interface has been implemented between REEFVTS and AUSREP.

39. The **only exception** to this rule is that when AUSREP participants are departing a Queensland port within the REEFVTS waterways they should send their AUSREP Sailing Plan (SP) to the RCC (preferably via INMARSAT C or Fax), in addition to their REEFVTS Pre-Entry Position report (PER), prior to departure from that port.

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 willfully transmits information which is incorrect, false or misleading will have committed an offence subject to a penalty.

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: Fax Phone Mobile Email Internet Postal	(UK) 51 94076260 ARP B G +61 (0)7 3666 2666 +61 (0)7 3666 2660 +61 (0)413 878 792 (all hours) operations@reefpilots.com.au www.reefpilots.com.au GPO Box 826 Brisbane QLD 4001
Mackay Pilot Station	Telex: Phone Email	(UK) 51 94076257 ARPM G +61 (0)7 4957 4877 arpmky@reefpilots.com.au
Cairns Pilot Station	Telex: Phone Email	(UK) 51 94076258 ARPC G +61 (0)7 4055 8311 arpcns@reefpilots.com.au
Thursday Island Pilot Station	Telex Phone Email	(UK) 51 94076256 ARPT G +61 (0)7 4069 1570 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:

<i>Location</i>	<i>Position</i>	<i>VHF Ch</i>	<i>Method</i>
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 EE	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
		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.net.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.

17. Outbound. Arrange by direct contact with the Brisbane office or through the ship's agent.

18. Boarding of pilots may be arranged for Queensland or Northern Territory ports, by request to Torres Pilots Brisbane office. This includes non compulsory pilotage areas in the Inner Route south of Cairns and Palm Passage. GBR pilots are not licensed for areas other than the compulsory pilotage areas mentioned in Marine Orders part 54, or at any of the following pilot boarding places (PBPs):

<i>Location</i>	<i>Position</i>	<i>VHF Ch</i>	<i>Method</i>
Palm Passage (Pith Reef)	18° 13'.0 S 147° 07'.0 E	16, 09	Helo
Cairns (Cairns Fairway)	16° 47'.0 S 145° 53'.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

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@hydrpopilots.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.

Australian Maritime Safety Authority.

(AA300412, AA300413)

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 the Australian Exclusive Economic Zone. *The Act* regulates both loading and deliberate disposal of all matter into the sea from vessels, aircraft or platforms. 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 of 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.

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
 Approvals and Audit Section
 Department of the Environment and Heritage
 GPO Box 787,
 CANBERRA ACT 2601
 Telephone +61 (0)2 6274 2128
 Facsimile +61 (0)2 6274 1620

7. Signals can be passed via AusSAR through any Maritime Communications Station.

Department of the Environment and Heritage.

(AH 98/312)

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, Maritime Operations in the Australian Maritime Safety Authority through the AusSAR.

Pollution Report

5. POLREP to the General Manager, Maritime Operations in the 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 (A,B,C, or D) 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 (A, B, C, or D) 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

(AA300412, AA300413)

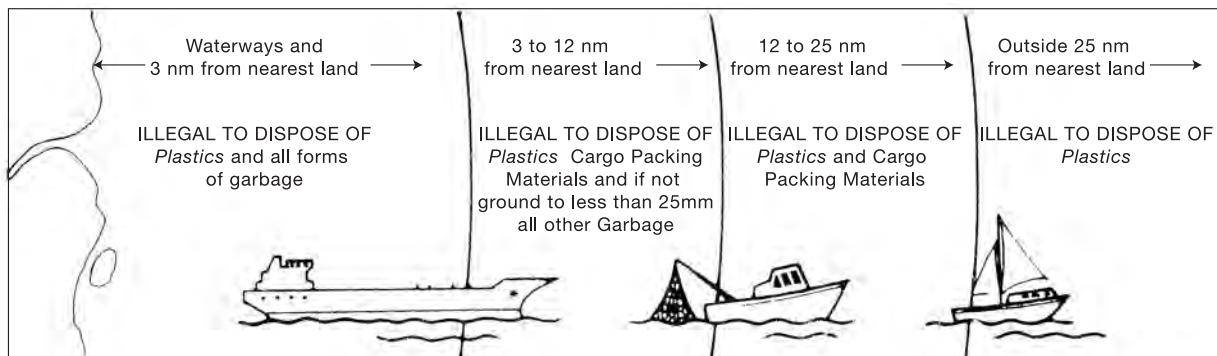
26. DISPOSAL OF GARBAGE AT SEA.

1. *The Protection of the Sea (Prevention of Pollution from Ships) Act 1983* implements 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:

- (a) Disposal of any plastic garbage into the sea, including synthetic fishing nets, rope, plastic bags is prohibited.
- (b) Food waste and all other garbage (including paper products, rags, glass, metal, bottles and crockery) cannot be discharged within 12 nautical miles of land unless they have first been passed through a grinder or communiter so as to be capable of passing through a screen with openings no greater than 25 millimetres square. Even when this reduction in particle size has been achieved the minimum distance from land beyond which disposal is permitted is set at three (3) nautical miles.
- (c) Dunnage, lining and packing materials which float can only be disposed of at sea more than 25 nautical miles from land.
- (d) the discharge of cargo residues through deck and hold washing cannot occur less than twelve nautical miles from the nearest land.



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 73/78* 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. Ships of 400 tonnes and above and ships certified to carry 15 persons or more are required to have a garbage management plan and to maintain a Garbage Record Book.

7. 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:

Environment Protection Standards
Australian Maritime Safety Authority
GPO Box 2181
Canberra City ACT 2616

Telephone +61 (0)2 6279 5040
Facsimile +61 (0)2 6279 5966

8. Signals can be passed via AusSAR through any Maritime Communication Station.

Australian Maritime Safety Authority, Canberra.

(AA300412, AA300413)

27. GENERAL NOTICE

1. Notices to Mariners which have been withdrawn from this publication have been incorporated in the Australian Seafarers Handbook (AHP 20). However, some references to these Notices may exist in other Nautical Publications; where this is the case information relating to the withdrawn Notices should be sought from AHP20.

2. It is anticipated that new editions of the affected Nautical Publications will be published by 2010.

Australian Hydrographic Service

(AA223184)

TEMPORARY AND PRELIMINARY NOTICES
In force on 1 January 2010

NEW SOUTH WALES

317(T)/2006 AUSTRALIA - NEW SOUTH WALES - Batemans Bay - Shoaling; buoy.
Maritime Authority NSW (A187776, A187777).

Shoaling, marked by a special spar buoy, exists inside and to the east of the entrance of the marina, in vicinity of 35° 42'.88 S 150° 11'.39 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 191.

454(T)/2006 AUSTRALIA - NEW SOUTH WALES - Port Jackson - Gore Cove - Shoaling.
Sydney Ports Corp (A192164).

Shoaling, least depth 13.2 metres, exists in the vicinity of 33° 50'.51 S 151° 11'.24 E.

Tankers are required to maintain a UKC of 10% of draught plus 0.2 metres.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 202 - AU5X200W.

708(T)/2008 AUSTRALIA - NEW SOUTH WALES - Green Cape to Ballina Head - Scientific instruments
Former Notice - 388(T)/2008 is cancelled
Manly Hydraulics Laboratory (AA346009, AA346010)

Special light buoys, *Fl(5)Y.20s*, exist in positions (WGS84 datum):

28° 49'.4 S	153° 39'.9 E
30° 21'.4 S	153° 16'.1 E
31° 49'.5 S	152° 51'.6 E
33° 46'.3 S	151° 25'.0 E
34° 28'.5 S	151° 01'.6 E
35° 42'.2 S	150° 20'.6 E
37° 18'.1 S	150° 11'.1 E

Mariners are not to use these buoys as moorings.

Chart temporarily affected - Aus 195 - Aus 197 - Aus 806 - Aus 807 - Aus 808 - Aus 809 - Aus 810 - Aus 811 - Aus 812
-
Aus 813 - AX 0808E - AX 0809E

746(T)/2008 AUSTRALIA - NEW SOUTH WALES - Cape Banks - Scientific instruments northeastwards
Oceanographic Field Services Pty Ltd (AA347550, AA347551, AA347552)

Scientific instruments exist in the following positions:

33° 56'.62 S	151° 22'.93 E
33° 59'.71 S	151° 27'.53 E

Chart temporarily affected - Aus 197 - Aus 808 - AX 0808E

864(T)/2008 AUSTRALIA - NEW SOUTH WALES - Port Kembla - Obstructions
NSW Maritime (AA354885)

Lost anchors and cables exist in the area bounded by (WGS84 datum):

34° 25'.70 S	150° 55'.20 E
34° 25'.70 S	150° 59'.40 E
34° 22'.00 S	150° 59'.40 E
34° 22'.00 S	150° 57'.00 E

Chart temporarily affected - Aus 195 - Aus 361 - Aus 808 - AX 0808E - AU435150 - AU5XX194

866(T)/2008 AUSTRALIA - NEW SOUTH WALES - Newcastle - Obstructions
NSW Maritime (AA354885)

Lost anchors and cables exist in the area bounded by (WGS84 datum):

32° 56'.50 S 151° 48'.00 E

32° 56'.50 S 151° 56'.50 E

33° 15'.00 S 151° 47'.00 E

33° 15'.00 S 151° 38'.50 E

Chart temporarily affected - Aus 207 - Aus 208 - Aus 361 - Aus 362 - Aus 809 – AX 0809E - AU433151 - AU5XX208

1035(T)/2008 AUSTRALIA - NEW SOUTH WALES - Beecroft Peninsula - Crocodile Head - Light buoy off station
University of New South Wales (AA361285)

The special light buoy, *Fl. Y.5s*, (35° 05'.0 S, 150° 51'.0 E (WGS84 datum)) is off station.

Chart temporarily affected – Aus 193 – Aus 807 – Aus 808 – AX 0808E – AX 60193 – AX 70193 - AU5XX193

1036(T)/2008 AUSTRALIA - NEW SOUTH WALES - Point Long Nose - Offshore works

Former Notices - 105(T)/2008, 865(T)/2008 are cancelled
Cardno (AA362534), Hydrographic Surveys Pty Ltd (AA354450)

Offshore works associated with the construction of the desalination plant are in progress in an area bounded from the coast to 34° 01'.4 S 151° 14'.1 E and 34° 02'.2 S 151° 14'.1 E.

A jack-up drilling rig *Seafox 6*, barges and tugs will be involved in the works.

Lit mooring buoys exist within the area. A lit special buoy, *Fl(5)Y.20s*, exists in position 34° 01'.84 S 151° 13'.86 E.

Vessels not associated with the works should keep 500 metres clear of the area.

Chart temporarily affected – Aus 197 – Aus 198 – Aus 808 – AX 0808E - AU5198X9

208(T)/2009 AUSTRALIA - NEW SOUTH WALES - Port Hacking - Scientific instrument southeastwards

Date - Until 28 February 2010
Australian Maritime Safety Authority (AA384369)

A special light buoy, *Fl. Y.5s*, exists in position 34° 07'.15 S 151° 13'.60 E.

Chart temporarily affected - Aus 808 - AX 0808E - AU435151

496(T)/2009 AUSTRALIA - NEW SOUTH WALES - Shoalhaven Bight - Unexploded ordnance
Department of Defence (AA399927)

Unexploded ordnance exists in positions 34° 56'.60 S 150° 50'.47 E and 34° 57'.99 S 150° 50'.35 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 807 - Aus 808 – AX 0808E - AU435150

658(T)/2009 AUSTRALIA - NEW SOUTH WALES - Port Stephens - Corrie Island - Shoaling

A Calcutt, NSW Maritime (AA409479)

Shoaling exists between positions 32° 40'.35 S 152° 07'.86 E and 32° 40'.26 S 152° 08'.10 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 209 - AU433152

715(T)/2009 AUSTRALIA - NEW SOUTH WALES - Botany Bay - Light buoys moved*Former Notice* - 318(T)/2009 is cancelled

Sydney Ports Corporation (AA391264, AA411070)

The following light buoys have been repositioned to:

<i>Buoy</i>	<i>New position</i>
No8 (33° 58'.89 S 151° 12'.22 E)	33° 59'.04 S 151° 12'.39 E
No10 (33° 58'.81 S 151° 12'.21 E)	33° 58'.86 S 151° 12'.27 E
No12 (33° 58'.53 S 151° 12'.12 E)	33° 58'.58 S 151° 12'.19 E
No14 (33° 58'.26 S 151° 12'.19 E)	33° 58'.35 S 151° 12'.16 E
No16 (33° 58'.22 S 151° 12'.34 E)	33° 58'.23 S 151° 11'.85 E.

Chart temporarily affected – Aus 198 – Aus 199 - AU5198X9**773(T)/2009 AUSTRALIA - NEW SOUTH WALES - Newcastle - Hunter River - South Arm - Harbour works; dredging operations**

BHP Billiton (AA414562 - AA414564)

Harbour works and dredging operations are in progress in an area bounded by the following positions (WGS84 datum):

32° 53.47 S 151° 45.83 E
 32° 53.42 S 151° 45.85 E
 32° 53.34 S 151° 45.75 E
 32° 53.24 S 151° 45.57 E
 32° 53.19 S 151° 45.47 E
 32° 53.15 S 151° 45.32 E
 32° 53.17 S 151° 45.31 E

An exclusion zone exists within the area.

The dredge *Boskalis Dredco JV* and support vessels *Gunfleet Sands* and *Big Boss* are onsite and will monitor VHF Ch 14.

Silt curtains have been established.

All hazards to navigation will display appropriate lights and signals.

Chart temporarily affected – Aus 207 – Aus 208 - AU5XX208**1009(T)/2009 AUSTRALIA - NEW SOUTH WALES - Manly - Scientific instruments***Date* - Until 28 February 2011

University of Sydney Institute of Marine Science (AA353372, AA353373, AA424523)

Subsurface scientific instruments exist in positions (WGS84 datum):

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 63200 - AU5X200E

1113(T)/2009 AUSTRALIA - NEW SOUTH WALES - Botany Bay - Harbour works*Date - Until 31 March 2011*

NSW Maritime Notice SU0807 (AA430317)

Works associated with the expansion of the container terminal at Brotherson Dock are in progress north of a line between positions 33° 58'.43 S 151° 11'.66 E and 33° 58'.19 S 151° 12'.47 E, marked by a silt curtain and special light buoys.

A designated gate marked by port and starboard lateral buoys exist at the western end of the silt curtain.

Access to Penrhyn boat ramp is via 30m wide navigation channel through the works area, marked by special light buoys.

A maximum speed limit of 8 knots applies to all vessels and wash kept to minimum. Anchoring of and drifting by recreational vessels is prohibited. Vessel operators must not enter the works area from the temporary navigation channel and vessels must keep well clear of any service craft, equipment and the actual construction area.

Scientific instruments marked by special light buoys exist in the following positions:

33° 58'.60 S 151° 11'.15 E
 33° 57'.82 S 151° 10'.30 E
 33° 58'.38 S 151° 11'.88 E
 33° 58'.35 S 151° 12'.15 E
 33° 57'.25 S 151° 11'.55 E
 33° 57'.37 S 151° 11'.63 E
 33° 57'.45 S 151° 11'.82 E

For further information visit www.maritime.nsw.gov.au.

Chart temporarily affected – Aus 198 – Aus 199 - AU5198X9**1114(T)/2009 AUSTRALIA - NEW SOUTH WALES - Botany Bay - Pipeline***Date - Until 31 March 2010*

NSW Maritime Notice SU0911 (AA430370)

Works associated with Energy Australia's Botany Bay Cable Project are in progress in areas defined by the following positions:

La Perouse

33° 59'.48 S 151° 13'.77 E
 33° 59'.53 S 151° 13'.70 E
 33° 59'.41 S 151° 13'.58 E
 33° 59'.36 S 151° 13'.65 E

Yarra Bay

33° 58'.81 S 151° 13'.72 E
 33° 58'.67 S 151° 13'.55 E
 33° 58'.67 S 151° 13'.49 E
 33° 58'.92 S 151° 13'.45 E
 33° 58'.71 S 151° 13'.10 E

The areas are marked by special light buoys every 100m.

All vessels and pontoons will display appropriate lights.

For further information visit www.maritime.nsw.gov.au.

Chart temporarily affected – Aus 198 – Aus 199 - AU5198X9

1115(T)/2009 AUSTRALIA - NEW SOUTH WALES - Botany Bay - Dredging operations; pipeline*Date* - Until 31 December 2009

NSW Maritime Notices SU0916, SU0907 (AA430421, AA430422)

Dredging operations and pipe laying works associated with the Sydney Desalination Project are in progress.

Dredging operations exist in an area defined by the following positions:

33° 58'.00 S 151° 10'.28 E
 33° 58'.67 S 151° 10'.63 E
 33° 58'.82 S 151° 10'.25 E
 33° 58'.13 S 151° 09'.88 E.

A floating pipeline marked by special lights exists between the dredge and a floating pontoon (33° 58'.13 S 151° 10'.23 E), marked by a port lateral light buoy. A submerged pipeline exists between the pontoon and a second pontoon (33° 57'.48 S 151° 10'.07 E), marked by a starboard lateral light buoy. A floating pipeline exists from the starboard lateral light buoy to a disposal barge located in an area (construction zone) marked by special light buoys, defined by the following positions:

33° 56'.97 S 151° 10'.02 E
 33° 57'.00 S 151° 10'.13 E
 33° 57'.27 S 151° 09'.80 E
 33° 57'.10 S 151° 09'.80 E.

A 1200m wide access gate is provided for vessels to transit through the works.

All vessels and pontoons involved in the works will display appropriate lights.

Pipe laying operations exist between the construction zone and the following positions:

33° 57'.57 S 151° 09'.83 E
 33° 59'.08 S 151° 10'.67 E
 33° 59'.67 S 151° 11'.53 E
 34° 00'.05 S 151° 11'.93 E
 34° 00'.12 S 151° 12'.00 E.

A pipe laying barge and support vessels are onsite.

The area will be marked by special light buoys and vessels are not permitted to enter the area without permission.

For further information visit www.maritime.nsw.gov.au.

Chart temporarily affected – Aus 198 – Aus 199 - AU5198X9

1177(T)/2009 AUSTRALIA - NEW SOUTH WALES - Cowan Creek - Refuge Bay - Raft removed

NSW Maritime (AA433101)

The lit raft (33° 35'.96 S 151° 15'.01 E) has been removed; an unlit mooring buoy exists in situ.

Chart temporarily affected – Aus 204 – Aus 217 - AU5XX204

1233(T)/2009 AUSTRALIA - NEW SOUTH WALES - Jervis Bay - Scientific instruments*Date* - Until 18 December 2009

Geoscience Australia (AA434477)

Subsurface scientific instruments exist in positions:

35° 06'.21 S 150° 45'.89 E
 35° 07'.83 S 150° 44'.15 E
 35° 06'.76 S 150° 42'.49 E
 35° 06'.74 S 150° 44'.59 E.

Chart temporarily affected - Aus 193 - Aus 807 - Aus 808 – AX 0808E – AX 60193 – AX 67192 – AX 70193 - AU436150 - AU5XX193

1234(P)/2009 AUSTRALIA - NEW SOUTH WALES - Cape Solander - Pilot boarding place trial eastwards*Former Notice* - 1174(P)/2009 is cancelled*Date* - Until 30 April 2010

Sydney Ports Corporation (AA432903)

A six month trial of the operation of a single pilot boarding place for Sydney Harbour and Botany Bay will be in force from 28 October 2009.

Pilot boarding and disembarkation operations at the pilot boarding place for Sydney Harbour will cease on 27 October 2009.

Pilot boarding for Sydney bound vessels will take place at Botany Bay pilot boarding place (34° 01'.2 S 151° 18'.7 E). Masters should note that the limit of compulsory pilotage area remains at the port limit and pilots will not take the conduct of the vessel until it approaches the port limit of Sydney Harbour.

Pilot disembarkation for vessels bound from Sydney will also take place at the Botany Bay pilot boarding place. Masters should note that pilots will hand over the conduct of the vessel as it passes the port limit of Sydney Harbour.

Chart which will be affected - Aus 197 - Aus 808 - AX0808E - AU434151 - AU435151**1235(T)/2009 AUSTRALIA - NEW SOUTH WALES - Clarence River - Harwood - Harbour works***Date* - Until 30 April 010

NSW Maritime Notice NC0939 (AA434622)

Harbour works associated with the maintenance of the Harwood bridge (29° 25'.80 S 153° 14'.46 E) are in progress.

The barge *Steel Trader* is onsite and will display appropriate lights and shapes. The barge has deployed anchors marked by special light buoys and will monitor VHF Ch 13 and Ch 16.

Chart temporarily affected - Aus 222 - Aus 812 - Aus 813**1281(T)/2009 AUSTRALIA - NEW SOUTH WALES - Port Kembla - Depth information***Former Notice* - 1069(T)/2009 is cancelled

Port Kembla Port Corporation Notice 12/2009 (AA437324)

Available depths as at 30 October 2009:

<i>Berth</i>	<i>Metres</i>	<i>Remarks</i>
Inner Harbour	15.2	
North West Basin	11.7	
* 101	11.4	
* 102	16.1	
* 103	12.0	
* 104	15.8	
* 105	15.2 (14.9 for vessels overhanging)	
106	13.9	
* 107	11.9	
108	-	Future Development
* 109	11.8	
* 110	10.7 (9.0)	
* 111	15.5	
* 112	12.6	
* 113	10.5	
* 201	10.3	To 250m
* 201	9.6	To 280m
* 201	9.5	To 350m
* 202	10.7	
* 202	10.6	
* 202	10.4	
* 203	9.7	
* 204	4.8	
205	7.0	
* 206	11.4	

* Indicates new or revised entry.

Chart temporarily affected - Aus 194 - AU5XX194

1373(T)/2009 AUSTRALIA - NEW SOUTH WALES - Cape Baily to Ben Buckler - Scientific instruments*Former Notice - 887(T)/2009 is cancelled**Date - Until 30 June 2011*

Sydney Institute of Marine Science (AA375220, AA420046)

Subsea moorings (25 metres below the surface) exist in positions (WGS84 datum) 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
34° 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 0808E – AX 0809E – AX 63200 - AU434151**1438(T)/2009 AUSTRALIA - NEW SOUTH WALES - Georges River - Light beacon removed; light buoy established**

NSW Maritime (AA223961, AA223962, AA444947)

The light beacon, *Fl.G.3s* (34° 00'.59 S 151° 08'.03 E), has been removed.A starboard lateral conical light buoy, *Fl.G.3s*, exists in position 34° 00'.61 S 151° 08'.01 E.**Chart temporarily affected - Aus 198 - AU5198X9****1439(T)/2009 AUSTRALIA - NEW SOUTH WALES - Port Jackson - Homebush Bay - Scientific instruments; piles; silt curtain***Former Notice - 650(T)/2007 is cancelled**Date - Until 30 June 2010*

Homebush Bay and Lednez Remediation Projects (AA255104, AA255105, AA255106), Thiess Services Pty Ltd (AA441189, AA441190)

Special conical light buoys exist in the following positions (WGS84 datum):

33° 50'.02 S 151° 04'.80 E
 33° 49'.43 S 151° 05'.04 E
 33° 49'.79 S 151° 04'.84 E
 33° 49'.71 S 151° 04'.88 E
 33° 49'.99 S 151° 04'.83 E
 33° 49'.90 S 151° 04'.77 E
 33° 49'.80 S 151° 04'.85 E
 33° 49'.72 S 151° 04'.88 E
 33° 49'.98 S 151° 04'.83 E
 33° 49'.90 S 151° 04'.78 E.

A containment barrier supported by piles exists between the following positions:

33° 49'.57 S 151° 05'.02 E
 33° 49'.42 S 151° 05'.15 E
 33° 49'.40 S 151° 05'.13 E
 33° 49'.34 S 151° 05'.19 E
 33° 49'.37 S 151° 05'.23 E
 33° 49'.38 S 151° 05'.23 E
 33° 49'.38 S 151° 05'.24 E.

A silt curtain exists in the area surrounding the piles.

Chart temporarily affected - Aus 200 - Aus 203 - AU5X200W

1440(T)/2009 AUSTRALIA - NEW SOUTH WALES - Newcastle - Depth information*Former Notice - 1282(T)/2009 is cancelled*

Newcastle Port Corporation (AA445497)

Available depths as at 14 December 2009:

<i>Berth</i>	<i>Metres</i>
Western Basin 3	11.6
Western Basin 4	11.6
* Eastern Basin 1	11.2
* Eastern Basin 2 North of Ch 450	11.5
* Eastern Basin 2 South of Ch 450	11.0
* Dockyard 2 (Dredge)	4.0
* Channel Berth (formerly Dockyard 4)	8.3
Dyke 1	12.8
* Dyke 2	12.6
Dyke 4	16.5
Dyke 5	16.5
Dyke 6	6.3
* Mayfield 4 Ch 50 to 266	9.5
* BHP Wharf 6 to Ch 1050	7.1
Kooragang 2	11.6
Kooragang 2 North Dolphin	11.0
Kooragang 2 South Dolphin	11.0
Kooragang 3	13.0
Kooragang 4	16.5
* Kooragang 5	16.3
Kooragang 6	16.3
Kooragang Ship Receiving KSR	8.0
Throsby 1	9.5
Carrington wharf	To be sounded as and when required
Former Tug berth 4	6.5
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)	16.1
Entrance Channel to Horseshoe	15.2
* Horseshoe	15.2
Steelworks Channel to Swinging Basin	15.0
Swinging Basin	15.0
* Swinging Basin to Mayfield 4	9.5
Basin Cutting	12.8
* Basin Area to Eastern & Western Basin Berths	12.3
Basin Area to 1 Throsby	10.0
Stockton Crossing	3.6
* Indicates revised entry.	

Chart temporarily affected - Aus 207 - Aus 208 - AU5XX208

QUEENSLAND

653(P)/2001 AUSTRALIA - CORAL SEA - Lihou Reef - Shoals.
LADS Flight (01/8133). (AH99/179)

A survey has revealed numerous coral pinnacles, of depths less than *5 metres*, existing between the charted reefs and the 50 metre isobath.

Along the sunken barrier reef between 17° 30'.0 S 151° 22'.0 E and 17° 40'.0 S 151° 18'.0 E shoals of depth *10 to 15 metres* exist.

Mariners should navigate with caution in the area.

A new edition of the chart will be produced in due course.

Chart which will be affected – Aus 614.**671(T)/2006 AUSTRALIA - QUEENSLAND - Skardon River - Shoaling.**
Maritime Safety Queensland Notice 396(T)/2006 (A196087).

Shoaling exists in the entrance to Skardon River (11° 45'.5 S 142° 00'.0 E).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 701.**1052(T)/2006 AUSTRALIA - QUEENSLAND - Laguna Quays - Reduced depth.**

Former Notice - 703(T)/2005 is cancelled
Maritime Safety Queensland Notice 593(T)/2006 (A207558).

The depth in the entrance channel to Laguna Quays (20° 35'.95 S 148° 41'.48 E) is reduced.

Mariners should contact Laguna Quays Port Control on VHF Ch16 prior to transiting the channel.

Chart temporarily affected - Aus 252.**1090(T)/2006 AUSTRALIA - QUEENSLAND - Brisbane River - Quarries Reach - Lights altered.**

Maritime Safety Queensland Notice 625(T)/2006 (A209852).

The lights K2873.3 (27° 26'.59 S 153° 06'.65 S) and K2873.31 (27° 26'.48 S 153° 07'.15 E) are altered to *F.Bu (F.Y day)*.

The lights K2873.5 (27° 26'.62 S 153° 06'.60 E) and K2873.51 (27° 26'.60 S 153° 06'.70 E) are altered to *F.R (F.Y day)*.

Chart temporarily affected - Aus 238.

1244(T)/2006 AUSTRALIA - QUEENSLAND - Pioneer Bay - Airlie Beach - Harbour works; light buoys.

Former Notice - 1193(T)/2006 is cancelled

Maritime Safety Queensland Notice 745(T)/2006 (A216005).

Harbour works for marina construction, are in progress in Muddy Bay.

Special light buoys, *Fl. Y.5s*, marking a silt curtain, exist in positions:

20° 16'.028 S 148° 43'.455 E
 20° 16'.028 S 148° 43'.512 E
 20° 16'.027 S 148° 43'.568 E
 20° 16'.027 S 148° 43'.625 E
 20° 16'.026 S 148° 43'.683 E
 20° 16'.100 S 148° 43'.685 E
 20° 16'.173 S 148° 43'.688 E
 20° 16'.247 S 148° 43'.690 E
 20° 16'.320 S 148° 43'.692 E
 20° 16'.394 S 148° 43'.695 E

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 268.**102(T)/2007 AUSTRALIA - QUEENSLAND - Moreton Bay - Spitfire Channel - Light sector partially undefined.**

Former Notice - 706(T)/2004 is cancelled

Maritime Safety Queensland Notice 24(T)/2007 (A224712).

M2 beacon Dir WRG. 4M (occas) light K2859.5 (27° 03'.47 S 153° 18'.78 E (WGS 84 datum)) is unreliable.

The port lateral light is unaffected.

Chart temporarily affected - Aus 235 - Aus 236.**694(T)/2007 AUSTRALIA - QUEENSLAND - Moreton Bay - Brisbane River - Depth information and keel clearances**

Former Notice - 653(T)/2007 is cancelled

Maritime Safety Queensland 497(T)/2007 (AA270959)

Available depths and under keel clearances (UKC) as at 27 July 2007:

	<i>Metres</i>	<i>UKC/Remarks</i>
Bay:		
North East Channel	5.5	Channel not maintained
* North West Channel	15.0	1.8 (NW FWY)
(over 280m width)	-	2.35 (NW2-3)
	-	2.1 (NW3-12)
Spitfire Channel	15.0	1.5
(over 280m width)		
East Knoll Bypass Channel	6.9	1.4
East Channel	15.0	1.5
(over 300m width)		
Main Channel (M8 - M9)	10.0	1.8
Brisbane River:		
Entrance Beacons and Bar Cutting	14.0	1.46
Fisherman Islands Swing Basin	14.0	1.3
Pelican Banks Reach to Hamilton Reach	9.1	0.6 - 0.9 depending draft and tide
Alongside all berths	-	0.3

* Indicates new or revised entry.

Chart temporarily affected – Aus 235 – Aus 236**733(T)/2007 AUSTRALIA - QUEENSLAND - Moreton Bay - Tangalooma Point – Wreck; buoy**

Maritime Safety Queensland 511(T)/2007 (AA277143)

A wreck exists in position (WGS 84 datum) 27° 11'.717 S 153° 21'.759 E marked by a unlit white spherical buoy.

Chart temporarily affected – Aus 236

774(T)/2007 AUSTRALIA - QUEENSLAND - Moreton Bay - Scarborough - Shoaling

Maritime Safety Queensland Notice 483(T)/2007 (AA270982)

Mariners are advised that shoaling least depth *1.9m*, has been reported in the western channel close to the marina berths in the vicinity of 27° 11'.64 S 153° 06'.28 E.

Shoaling least depth *1.8m*, has been reported in the southern channel in the vicinity of 27° 11'.65 S 153° 06'.47 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 236

830(T)/2007 AUSTRALIA - QUEENSLAND - Brisbane River - Cameron Rocks - Light unlit

Maritime Safety Queensland Notice 608(T)/2007 (AA284944)

The light K2874-7 (27° 26'.40 S 153° 03'.04 E) is unlit.

Chart temporarily affected – Aus 238

890(T)/2007 AUSTRALIA - QUEENSLAND - Skardon River - Shoaling

Maritime Safety Queensland Notice 614(T)/2007 (AA285408)

Shoaling, least depth *0m*, exists in approx position 11° 46'.29 S 141° 57'.95 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 701

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

937(T)/2007 AUSTRALIA - QUEENSLAND - Karumba - Obstruction; buoy

Maritime Safety Queensland Notice 686(T)/2007 (AA290358)

An obstruction, steel pipe which covers and uncovers, marked by a white buoy, exists in position 17° 27'.80S 140° 44'.83 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 6

1132(T)/2007 AUSTRALIA - QUEENSLAND - Brisbane River - Lytton Reach - Mooring blocks; pipeline

Former Notice - 1071(T)/2007 is cancelled

Maritime Safety Queensland Notice 817(T)/2007

Mooring blocks exist in positions 27° 25'.35 S 153° 08'.36 E and 27° 25'.36 S 153° 08'.34 E. A floating pipeline marked by nine lights Q.Y has been established between the mooring blocks and the river bank (27° 25'.41 S 153° 08'.40 E).

Mariners are advised to navigate with caution in the vicinity.

Chart temporarily affected - Aus 237 – Aus 238

111(T)/2008 AUSTRALIA - QUEENSLAND - Heron Island - Scientific instruments*Date* - Until 30 June 2011

Australian Institute of Marine Science (AA308016, AA308017)

Subsurface scientific instruments exist in positions:

23° 22'.958 S 151° 59'.215 E

23° 28'.988 S 152° 10'.432 E

23° 30'.740 S 151° 57'.318 E

Chart temporarily affected - Aus 819**114(T)/2008 AUSTRALIA - QUEENSLAND - Cape Bowling Green - Scientific instrument***Date* - Until 30 June 2011

Australian Institute of Marine Science (AA308016, AA308017)

A subsurface scientific instrument exists in position 19° 18'.305 S 147° 37'.322 E.

Chart temporarily affected - Aus 826 - Aus 827**116(T)/2008 AUSTRALIA - QUEENSLAND - Thread Shoal to Myrmidon Reef - Scientific instruments***Date* - Until 30 June 2011

Australian Institute of Marine Science (AA308016, AA308017)

Subsurface scientific instruments exist in positions:

18° 18'.766 S 147° 09'.073 E

18° 13'.178 S 147° 20'.621 E

Chart temporarily affected - Aus 828**117(T)/2008 AUSTRALIA - QUEENSLAND - Port Douglas - Depth information**

Maritime Safety Queensland Notice 886(T)/2007 (AA307483)

Available depths as at 20 December 2007:

	<i>Metres</i>
* Outer Channel	1.4
* Inner Channel	1.7
* Indicates revised entry.	

Chart temporarily affected - Aus 270**118(T)/2008 AUSTRALIA - QUEENSLAND - Lizard Island - Scientific instruments***Date* - Until 30 June 2011

Australian Institute of Marine Science (AA308016, AA308017)

Subsurface scientific instruments exist in positions:

14° 35'.649 S 145° 21'.432 E

14° 20'.354 S 145° 20'.625 E

Chart temporarily affected - Aus 832**311(T)/2008 AUSTRALIA - QUEENSLAND - Swains Reef - Scientific instruments***Former Notice* - 112(T)/2008 is cancelled

Australian Institute of Marine Science (AA308016, AA308017)

Subsurface scientific instruments exist in positions:

22° 13'.589 S 151° 48'.281 E

20° 51'.512 S 151° 48'.362 E

Chart temporarily affected - Aus 367 - Aus 426

391(T)/2008 AUSTRALIA - QUEENSLAND - Kirra Point - Offshore works

Former Notice - 1130(T)/2007 is cancelled

Maritime Safety Queensland Notice 208(T)/2008 (AA325591)

Offshore works associated with the desalination plant construction are in progress.

A lit platform *Eun Sung 1200* will be anchored within a 600 metre radius of position 28° 08.6 S 153° 30.8 E (WGS84 datum).

Vessels not associated with the works should keep well clear of the platform.

Mariners are advised to navigate with caution in areas adjacent to the works.

Chart temporarily affected - Aus 813 - Aus 814**460(T)/2008 AUSTRALIA - QUEENSLAND - Abbot Point - Light buoy established**

Maritime Safety Queensland Notice 237(T)/2008 (AA330654)

A light buoy, Q, exists in position 19° 52'.53 S 148° 05'.04 E.

Chart temporarily affected - Aus 255**463(T)/2008 AUSTRALIA - QUEENSLAND - Lucinda - Light buoy repositioned**

Maritime Safety Queensland Notice 231(T)/2008 (AA330646)

No 18 port lateral light buoy (18° 30'.11 S 146° 18'.83 E) has been repositioned to 18° 30'.426 S 146° 19'.125 E.

Chart temporarily affected - Aus 259**657(T)/2008 AUSTRALIA - QUEENSLAND - Bundaberg - Burnett River - Sea Reach - Light beacon destroyed**

Maritime Safety Queensland Notice 350(T)/2008 (AA342856)

No 12 light beacon (24° 45'.30 S 152° 24'.44 E) has been destroyed; a port lateral light buoy, *Fl.R.3s*, exists in situ.

Chart temporarily affected - Aus 242**663(T)/2008 AUSTRALIA - QUEENSLAND - Pioneer Bay - Airlie Beach - Dredging operations**

Maritime Safety Queensland Notice 370(T)/2008 (AA343748)

Dredging operations are being conducted in Muddy Bay.

An exclusion zone marked by special light buoys, *Fl.Y.5s*, exists in an area bounded by the following positions:

20° 16'.011 S	148° 43'.412 E
20° 16'.009 S	148° 43'.609 E
20° 15'.495 S	148° 43'.603 E
20° 15'.495 S	148° 43'.683 E
20° 16'.523 S	148° 43'.694 E

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 252 - Aus 253 - Aus 268**664(T)/2008 AUSTRALIA - QUEENSLAND - Abbot Point - Scientific instruments**

Maritime Safety Queensland Notice 344(T)/2008 (AA342586)

Scientific instruments exist in positions (WGS84 datum) as follows:

19° 49'.12 S	148° 00'.77 E
19° 54'.30 S	148° 00'.03 E
19° 52'.88 S	148° 04'.51 E
19° 50'.91 S	148° 02'.87 E
19° 52'.74 S	147° 58'.29 E
19° 50'.01 S	148° 09'.98 E
19° 56'.05 S	148° 07'.78 E
19° 53'.98 S	148° 09'.54 E

Chart temporarily affected - Aus 255 - Aus 826

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

750(T)/2008 AUSTRALIA - QUEENSLAND - Moreton Bay - Banana Bank - Light beacon damaged

Maritime Safety Queensland Notice 439(T)/2008 (AA349428)

The west cardinal light beacon (27° 32'.02 S 153° 20'.09 E) has been damaged and the light altered to *Fl(2)6s*.

A west cardinal light buoy, *Q(9)15s*, exists in position 27° 31'.94 S 153° 19'.97 E.

Chart temporarily affected - Aus 236

751(T)/2008 AUSTRALIA - QUEENSLAND - Brisbane River - Fisherman Islands - Harbour works

Maritime Safety Queensland Notice 415(T)/2008 (AA347382)

Works associated with the development of berths 12 and 13 are in progress in position 27° 21'.50 S 153° 10'.85 E. Works will involve the removal of a section of existing rock wall, dredging and construction of a new rock wall.

Mariners are advised to navigate with caution in the area and are to pass the works at slow speeds.

Chart temporarily affected - Aus 237

755(T)/2008 AUSTRALIA - QUEENSLAND - Cassady - Light beacon destroyed

Maritime Safety Queensland Notice 431(T)/2008 (AA348607)

The landfall beacon (18° 36'.93 S 146° 20'.08 E (WGS84 datum)) has been destroyed; a special light buoy, *Fl.Y.2.5s*, exists in situ.

Chart temporarily affected - Aus 371 - Aus 372 - Aus 827 - Aus 828

810(T)/2008 AUSTRALIA - QUEENSLAND - Brisbane River - Depth information

Former Notice - 162(T)/2008 is cancelled

Maritime Safety Queensland Notice 446(T)/2008 (AA350200)

Available depths as at 16 July 2008:

<i>Berth</i>	<i>Metres</i>	<i>Remarks</i>
* Fisherman Islands No9	14.2	
Fisherman Islands No8	14.0	
Fisherman Islands No7	14.0	
* Fisherman Islands No6	14.1	
* Fisherman Islands No5	14.0	
Fisherman Islands No4	14.0	
* Fisherman Islands No3	14.0	
*Fisherman Islands No2	14.0	
Fisherman Islands No1	14.0	
* Fisherman Islands Grain and Woodchip	13.0	
* Caltex Fisherman Islands	14.3	
* BP Luggage Point	14.3	
* Fisherman Islands Coal	13.2	
* Caltex Products	10.1	
* QCL	10.0	
* BP Products	10.9	
* Shell	11.0	
* Pacific Terminals	10.7	
*Incitec North	10.1	
*Incitec South	10.5	
* Pinkenba 1	10.5	
* Pinkenba 2	10.5	
Riverside Marina	< 5.0	
Sugar Terminal	9.7	
Cairncross Fitting Out Wharf	7.3	
* Cairncross Breasting Wharf	7.0	
* Maritime No3	7.1	(not maintained)
* Maritime No2	10.3	
* Maritime No1	9.3	
* Hamilton No4	10.3	
* Hamilton No3	9.8	
* Hamilton No2	9.6	
* Hamilton No1	10.3	
* Brisbane Cruise Ship Terminal	9.4	

*Indicates revised entry.

Chart temporarily affected - Aus 237 - Aus 238 - AU5237X8**814(T)/2008 AUSTRALIA - QUEENSLAND - Brisbane River - Bulimba Reach - Newstead - Harbour works**

Maritime Safety Queensland Notice 468(T)/2008 (AA352996)

Harbour works associated with the demolition of the wharf (27° 26'.88 S 153° 02'.83 E) are in progress.

The work area is enclosed by an anchored debris catchment boom, which is marked by yellow flashing lights along its length.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 238 - AU5237X8**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 - AU5268P2

835(P)/2008 AUSTRALIA - CORAL SEA - Capel Bank to Nova Bank - Shoaling
US Notice 27/602/2008 (AA353578)

Shoaling has been reported in the following areas:

<i>Position</i>	<i>Remarks</i>
22° 05' S 159° 34' E	Depths to 103 metres
22° 50' S 159° 34' E	
22° 50' S 159° 12' E	
22° 05' S 158° 58' E	
23° 00' S 159° 47' E	Depths to 318 metres
23° 30' S 159° 47' E	
23° 30' S 159° 20' E	
23° 00' S 159° 20' E	
23° 52' S 159° 42' E	
24° 15' S 159° 42' E	
24° 15' S 159° 15' E	
23° 52' S 159° 15' E	
24° 40' S 160° 00' E	
25° 40' S 160° 00' E	
25° 40' S 159° 25' E	
24° 40' S 159° 25' E	

Charting action will be considered on receipt of additional data.

Chart which will be affected - Aus 4060 (INT 60) - Aus 4602 (INT 602)

876(T)/2008 AUSTRALIA - QUEENSLAND - Cooktown - Depth information
Former Notice - 785(T)/2007 is cancelled
Maritime Safety Queensland Notice 485(T)/2008 (AA354431)

Available depths as at 6 August 2008:

	<i>Metres</i>
* Outer Channel	1.9
* Public Wharf	2.8
* Swing Basin	1.2
* Indicates revised entry.	

Chart temporarily affected - Aus 270 - AU5270P6

1044(T)/2008 AUSTRALIA - QUEENSLAND - Abbot Point - Harbour works
Former Notice - 400(T)/2008 is cancelled
Date - Until 31 June 2010
Maritime Safety Queensland Notice 626(T)/2008 (AA362524)

Works associated with the construction of the new berth 2, in the vicinity of 19° 51'.49 S 148° 05'.19 E, are in progress.

The barges *WBIII*, *Rover*, *Steel Ranger* and *SEP Fuji*, MT *Daley* and *Lismore* and workboat *Workboat 29* are onsite and will display the appropriate lights and signals.

All vessels will monitor VHF Ch 14 and Ch 16. Operational communications will be conducted on VHF Ch 72 and mariners are requested to avoid using this channel.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 255 - AU5XX255

1051(T)/2008 AUSTRALIA - QUEENSLAND - Karumba - Light beacon withdrawn
Former Notice - 661(T)/2007 is cancelled
Maritime Safety Queensland Notice 604(T)/2008 (AA361931)

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

1097(T)/2008 AUSTRALIA - QUEENSLAND - Airlie Beach - Muddy Bay - Wreck
Maritime Safety Queensland Notice 643(T)/2008 (AA363786)

A wreck marked by a special light buoy, *Fl.Y.3s*, exists in position 20° 15'.96 S 148° 43'.38 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 252 - Aus 253 - Aus 268 - AU5268P2

1099(T)/2008 AUSTRALIA - QUEENSLAND - Goold Island - Wreck

Former Notice - 875(T)/2008 is cancelled

Maritime Safety Queensland Notice 634(T)/2008 (AA363523), Wreck is FV *Silla*

A wreck marked by an isolated danger light buoy, *Fl(2)4s*, exists in position 18° 10'.314 S 146° 04'.913 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 828 - AU419146

1146(T)/2008 AUSTRALIA - QUEENSLAND - Brisbane River - Quarries Reach to Parker Island Reach - Harbour works

Former Notice - 445(T)/2007 is cancelled

Date - Until 31 August 2010

Maritime Safety Queensland Notice 190(T)/2007, 296(T)/2007, 677(T)/2008 (AA237697, AA243715, AA366844, AA243714)

Harbour works are in progress for the Gateway Bridge development.

A silt curtain and temporary causeway exist from the northern bank of the river to position 27° 26'.62 S 153° 06'.01 E.

A 6 knot no wash speed limit zone marked by special light buoys exists between:

27° 26'.67 S 153° 05'.74 E
27° 26'.45 S 153° 06'.39 E
27° 26'.60 S 153° 06'.50 E
27° 26'.66 S 153° 06'.50 E
27° 26'.89 S 153° 05'.87 E
27° 26'.67 S 153° 05'.74 E

Special light buoys, *Fl.Y.2.5s*, exist in positions:

27° 26'.74 S 153° 05'.79 E
27° 26'.52 S 153° 06'.44 E
27° 26'.60 S 153° 06'.50 E
27° 26'.83 S 153° 05'.83 E

During construction a 3 metre reduction in vertical clearance will exist, with 54 metres in the centre and 50 metres at the edge of the cutting.

Mariners with an aircraft of over 45 metres are required to obtain written permission from the Manager Vessel Traffic Management at Brisbane Port Control on 07 33051700 prior to proceeding under the Gateway Bridges.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 238 - AU5237X8

1152(T)/2008 AUSTRALIA - QUEENSLAND - Abbot Point - Depth information

Former Notice - 977(T)/2008 is cancelled

Maritime Safety Queensland Notice 681(T)/2008 (AA366839)

Available depths as at 16 October 2008:

	<i>Metres</i>
* Departure Channel	17 .2
Berth Pocket	19.1
* Indicates revised entry.	

Chart temporarily affected – Aus 255 - AU5XX255

1193(T)/2008 AUSTRALIA - QUEENSLAND - Brisbane River - Fisherman Islands - Harbour works*Former Notice* - 811(T)/2008 is cancelled*Date* - Until 31 March 2009

Maritime Safety Queensland Notice 695(T)/2008 (AA367955)

Harbour works associated with the construction of the new General Purpose Wharf (27° 23'.39 S 153° 09'.50 E) are in progress.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 237 - AU5237X8**1198(T)/2008 AUSTRALIA - QUEENSLAND - Cape Cleveland - Scientific instrument***Former Notice* - 888(T)/2007 is cancelled

Maritime Safety Queensland Notice 711(T)/2008 (AA368576)

A special light buoy, *Fl(5)Y.20s*, exists in position 19° 09'.60 S 147° 03'.40 E.

Mariners are not to use this buoy as a mooring.

Chart temporarily affected – Aus 256 – Aus 827 - AU320147**1248(T)/2008 AUSTRALIA - QUEENSLAND - Townsville - Ross River - Light buoy**

Maritime Safety Queensland Notice 743(T)/2008 (AA371532)

A port lateral light buoy, *Fl.R.2.5s*, has been established in position 19° 15'.875 S 146° 50'.387 E to mark a sandbank that has extended into the Ross River Channel.

Chart temporarily affected - Aus256 - Aus257 - AU5XX257**1305(T)/2008 AUSTRALIA - QUEENSLAND - Lisa Jane Shoals - Scientific instrument***Former Notice* - 1135(T)/2007 is cancelled

Maritime Safety Queensland Notice 770(T)/2008 (AA374220)

A special light buoy, *Fl(5)Y.20s*, exists in position 23° 18'.37 S 151° 04'.30 E.

Mariners are not to use this buoy as a mooring.

Chart temporarily affected - Aus 247 - Aus 819 - Aus 820 - AU424151**84(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - Rous Channel - Shoaling***Former Notice* - 1090(T)/2008 is cancelled

Maritime Safety Queensland Notice 831(T)/2008 (AA378659)

Shoaling exists within Rous Channel.

No3 light buoy (27° 23'.14 S 153° 25'.78 E) has been repositioned to 27° 23'.05 S 153° 25'.33 E.

No7 light buoy (27° 23'.00 S 153° 24'.87 E) has been repositioned to 27° 22'.85 S 153° 24'.93 E.

No5 light buoy (27° 23'.20 S 153° 25'.37 E) has been withdrawn.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 236

87(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - Wynnum - Shoaling

Maritime Safety Queensland Notice 4(T)/2009 (AA379642)

Shoaling, with least depth *0.8 m*, exists within the entrance channel to Wynnum Creek between the starboard entrance beacon (27° 26'.01 S 153° 10'.68 E) and the seaward end of the southern breakwater (27° 26'.10 S 153° 10'.58 E). Shoaling also exists on the southern side of the channel along the length of the southern breakwater.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 236 - AU5237X8**94(T)/2009 AUSTRALIA - QUEENSLAND - Cape Upstart - Wreck northwards**

Former Notice - 461(T)/2008 is cancelled

Maritime Safety Queensland Notice 812(T)/2008 (AA376703), wreck is SV *Challenger*

A wreck exists in position 19° 26'.84 S 147° 46'.33 E (WGS84 datum).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 826 - Aus 827 - AU320147**166(T)/2009 AUSTRALIA - QUEENSLAND - Karamea Bank - Wreck**

Maritime Safety Queensland Notice 30(T)/2009 (AA381837)

A wreck exists in position 22° 39'.17 S 151° 32'.70 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 367 – Aus 820 - AU323151**170(T)/2009 AUSTRALIA - QUEENSLAND - Rocky Point - Light beacon withdrawn**

Maritime Safety Queensland Notice 43(T)/2009 (AA382154)

The north cardinal light beacon, Q, (17° 21'.60 S 146° 01'.90 E) has been temporarily withdrawn.

Chart temporarily affected – Aus 829 - AU418146**214(T)/2009 AUSTRALIA - QUEENSLAND - Airlie Beach - Muddy Bay - Wreck**

Maritime Safety Queensland Notice 65(T)/2009 (AA384396)

A wreck marked by a special light buoy, *Fl.Y.3s*, exists in position 20° 15'.84 S 148° 43'.22 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 252 - Aus 253 - Aus 268 - AU5268P2**321(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - Manly - Light beacon established**

Maritime Safety Queensland Notice 146(T)/2009 (AA390824)

The special beacon (27° 27'.35 S 153° 11'.42 E) has been temporarily altered to a starboard lateral light beacon, *Fl.G.3s*.

Chart temporarily affected - Aus 236 - AU5237X8**329(T)/2009 AUSTRALIA - QUEENSLAND - Surprise Rock - Light beacon destroyed**

Maritime Safety Queensland Notice 125(T)/2009 (AA389353)

The isolated danger beacon (20° 21'.3S 149° 01'.6 E) has been destroyed.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 252 - Aus 253 - Aus 824 - AU421149

377(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - Skirmish Passage - Wreck

Former Notice - 1069(T)/2007 is cancelled

Maritime Safety Queensland Notice 72/2009 (AA384344, AA395948)

A wreck exists in position 26° 59'.63 S 153° 10'.88 E (WGS84 datum).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 235 - Aus 236**380(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - Bramble Bay - Bridge construction**

Former Notices - 347(T)/2008 and 546(T)/2008 are cancelled

Date - Until 30 June 2011

Maritime Safety Queensland Notice 171(T)/2008, 164(T)/2009, 166(T)/2009 (AA323151, AA395818, AA396377)

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>

Mariners should navigate with caution in the area.

Chart temporarily affected - Aus 236 - Aus 814**429(T)/2009 AUSTRALIA - QUEENSLAND - Cape Moreton - Obstruction southeastwards**

Maritime Safety Queensland Notice 170(T)/2009 (AA396927)

An obstruction marked by buoys exists in position 27° 07'.12 S 153° 31'.54 E (WGS84 datum).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 236 - Aus 364 - Aus 814**430(T)/2009 AUSTRALIA - QUEENSLAND - Cape Moreton - Obstructions**

Australian Maritime Safety Authority (AA397869), Maritime Safety Queensland Notice 202(T)/2009 (AA397906)

Underwater obstructions exist within 0.5M of the following positions (WGS84 datum):

27° 00'.7 S 153° 35'.3 E
 27° 01'.7 S 153° 36'.0 E
 27° 02'.2 S 153° 35'.7 E

Mariners are advised to avoid the area.

Chart temporarily affected - Aus 235 - Aus 364 - Aus 365 - Aus 814**446(T)/2009 AUSTRALIA - QUEENSLAND - Upolu Reef - Obstructions**

Date - Until 31 July 2010

Maritime Safety Queensland Notice 183(T)/2009 (AA397149)

An obstruction exists in the vicinity of position 16° 41'.43 S 145° 52'.12 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 830 - AU417145

503(T)/2009 AUSTRALIA - QUEENSLAND - Point Cartwright - Obstruction southeastwards
Maritime Safety Queensland Notice 212(T)/2009 (AA399779)

An underwater obstruction exists in position 26° 41'.8 S 153° 13'.8 E (WGS84 datum).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 235 - Aus 365

511(T)/2009 AUSTRALIA - QUEENSLAND - Cairns - Depth information

Former Notice - 1313(T)/2008 is cancelled

Maritime Safety Queensland Notice 218(T)/2009 (AA399740)

Available depths as of 9 April 2009:

	<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	3.3	
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 – AX 63262 - AU417145 - AU5262X4

512(T)/2009 AUSTRALIA - QUEENSLAND - Karumba - Depth information

Former Notice - 173(T)/2009 is cancelled

Maritime Safety Queensland Notice 505(T)/2008, 238(T)/2009 (AA354877, AA400753)

Available depths as at 20 April 2009:

<i>Berth</i>	<i>Metres</i>
* Entrance Channel	2.5
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

560(T)/2009 AUSTRALIA - QUEENSLAND - Gladstone - Fishermans Landing - Harbour works; dredging operations

Former Notice - 975(T)/2008 is cancelled

Date - Until 31 July 2009

Maritime Safety Queensland Notice 573(T)/2008, 268(T)/2009 (AA359474, AA402313)

Harbour works associated with the construction of berth No1 (23° 47'.52 S 151° 10'.95 E) are in progress.

The piling barge *PMG 150* and MT *Oxley* are onsite and will display the appropriate lights and shapes.

The dredge *Wombat* and support vessels are conducting dredging operations in the area bounded by:

23° 47'.80 S 151° 11'.88 E

23° 47'.51 S 151° 11'.44 E

23° 47'.51 S 151° 10'.95 E

23° 47'.59 S 151° 11'.07 E

23° 47'.60 S 151° 11'.38 E

A pipeline marked by lights exists between the dredge and position 23° 47'.57 S 151° 10'.93 E.

All vessels 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 - AU5244X5**620(P)/2009 AUSTRALIA - QUEENSLAND - Caloundra - Rock outcrop**

Maritime Safety Queensland Notice 294(T)/2009 (AA405382)

A rock outcrop is reported to exist between positions 26° 45'.04 S 153° 10'.64 E and 26° 45'.32 S 153° 10'.76 E, with least depth 14.4m LAT.

Mariners are advised to navigate with caution in the area.

Chart which will be affected - Aus 235**660(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - North East Channel - Light buoys off station**

Former Notices - 80(T)/2009, 433(T)/2009 are cancelled

Maritime Safety Queensland Notices 10(T)/2009, 191(T)/2009, 350(T)/2009 (AA379978, AA397826, AA409803)

Light buoys NE2 (26° 57'.99 S 153° 20'.57 E (WGS84 datum)), NE6 (27° 00'.90 S 153° 20'.43 E) and NE8 (27° 02'.3 S 153° 20'.8 E) are off station.

Chart temporarily affected - Aus 235 - Aus 236 - Aus 814**661(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - Redland Bay - Light beacon destroyed**

Maritime Safety Queensland Notice 340(T)/2009 (AA409168)

The south cardinal light beacon (27° 36'.75 S 153° 19'.01 E) has been destroyed; a south cardinal light buoy, *Q(6)* & *LFI.15s*, exists in situ.

Chart temporarily affected - Aus 236**662(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - Cleveland Point - Light beacon unlit**

Maritime Safety Queensland Notice 339(T)/2009 (AA409170)

The light beacon (27° 30'.47 S 153° 17'.62 E) is unlit.

Chart temporarily affected - Aus 236**663(T)/2009 AUSTRALIA - QUEENSLAND - Pumicestone Channel - Light buoy off station**

Maritime Safety Queensland Notice 331(T)/2009 (AA408565)

The port lateral light buoy, *Fl.R.2-5s* (26° 48'.54 S 153° 07'.93 E), is off station.

Chart temporarily affected - Aus 235

665(T)/2009 AUSTRALIA - QUEENSLAND - Saumarez Reefs - South West Cay - Wreck
Maritime Safety Queensland Notice 328(T)/2009 (AA408566)

A wreck exists in position 21° 51'.3 S 153° 31'.4 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 426 - Aus 612

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 - AU5268P2

720(T)/2009 AUSTRALIA - QUEENSLAND - Brisbane River - Town Reach - Kangaroo Point - Wreck
Maritime Safety Queensland Notice 343(T)/2009 (AA409122)

A wreck exists in position 27° 27'.93 S 153° 02'.04 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 238 - AU5237X8

721(T)/2009 AUSTRALIA - QUEENSLAND - Gladstone - Calliope River - Scientific instruments
Date - Until 30 April 2010
Maritime Safety Queensland Notice 371(T)/2009 (AA411214)

Scientific instruments marked by special light buoys, Q. Y, exist in positions:

23° 49'.46 S 151° 12'.97 E
23° 50'.00 S 151° 12'.25 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 245 - AU5244X5

724(T)/2009 AUSTRALIA - QUEENSLAND - Mackay - Harbour works
Maritime Safety Queensland Notice 378(T)/2009 (AA411761)

Demolition works in the vicinity of Loves Jetty (21° 06'.55 S 149° 13'.58 E) are in progress.

The barge *Sheerlegs* and support vessel *Louisianne* are onsite and will monitor VHF Ch 16.

Mariners are advised to navigate with caution in the vicinity.

Chart temporarily affected – Aus 250 - AU5250P1

726(T)/2009 AUSTRALIA - QUEENSLAND - Double Island - Scientific instrument
Former Notice - 216(T)/2009 is cancelled
Maritime Safety Queensland Notice 383(T)/2009 (AA412011)

A special light buoy, *FI(5)Y.20s*, exists in position 16° 43'.97 S 145° 42'.68 E.

Mariners are not to use this buoy as a mooring.

Chart temporarily affected – Aus 830 - AU417145

729(T)/2009 AUSTRALIA - QUEENSLAND - Albatross Bay - Scientific instruments*Former Notice - 218(T)/2009 is cancelled*

Maritime Safety Queensland Notice 383(T)/2009 (AA412011)

A special light buoy, *Fl(5)Y.20s*, exists in position 12° 41'.27 S 141° 41'.10 E.

Mariners are not to use this buoy as a mooring.

Chart temporarily affected – Aus 4 – Aus 701 - AU413141**777(T)/2009 AUSTRALIA - QUEENSLAND - Southport - Harbour works***Former Notice - 79(T)/2009 is cancelled*

Maritime Safety Queensland Notice 18(T)/2009 (AA380382)

Harbour works associated with the construction of a new pier facility (27° 57'.95 S 153° 25'.15 E) are in progress.

The work site will be marked by special light buoys, *Fl. Y.2.5s*, in positions:

27° 57'.92 S 153° 25'.15 E

27° 57'.86 S 153° 25'.11 E

27° 57'.93 S 153° 25'.19 E

27° 57'.83 S 153° 25'.14 E

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 230**786(T)/2009 AUSTRALIA - QUEENSLAND - Mourilyan - Depth information***Former Notice - 628(T)/2009 is cancelled*

Maritime Safety Queensland Notice 417(T)/2009 (AA414655)

Available depths as at 29 June 2009:

	<i>Metres</i>
Departure Channel	9.6
Inner Channel	9.6
* Swing Basin	6.7
* Sugar Berth	10.1

*Indicates revised entry.

Shoaling for a distance of 200m to seaward of the berth pocket can develop over time.

Chart temporarily affected – Aus 258 - AU5258P1**787(T)/2009 AUSTRALIA - QUEENSLAND - Cape Flattery - Wreck**

Maritime Safety Queensland Notice 398(T)/2009 (AA414185)

A wreck exists in position 14° 57'.19 S 145° 19'.86 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 831 – Aus 832 - AU415145**836(T)/2009 AUSTRALIA - QUEENSLAND - Gold Coast Seaway - Shoaling***Former Notice - 774(T)/2009 is cancelled*

Maritime Safety Queensland Notice 447(T)/2009 (AA417664)

An area of shoal water located approximately 250m east northeast of the seaway south wall continues to move northward across the line of the centre line leads (255°).

The shoal area has a least depth of approximately 3.6m LAT and use of the centre line leads should be avoided at low tide by deep draft vessels. Breaking waves may be experienced at this location during the ebb tide or when seas rise above 1.5m.

Deepest water (over 4.1m) is found when navigating the seaway using the southern approach leads (291°).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 230

837(T)/2009 AUSTRALIA - QUEENSLAND - Gold Coast Seaway - Shoaling

Maritime Safety Queensland 448(T)/2009 (AA417665)

Shoaling with a least depth of, 2.9m LAT exists in the North channel in the vicinity of 27° 55'.8 S 153° 25'.1 E. Deeper water to 3.4m is found on the eastern side of the channel.

Shoaling with a least depth of, 4.1m LAT exists in the South channel in the vicinity of 27° 56'.3 S 153° 25'.4 E.

Chart temporarily affected - Aus 230**845(T)/2009 AUSTRALIA - QUEENSLAND - Black Island - Light beacon destroyed**

Maritime Safety Queensland Notice 446(T)/2008 (AA417751, AA418222)

Special light beacon (20° 04'.56 S 148° 53'.58 S) has been destroyed; a special light buoy, *Fl. Y.2.5s*, exists in situ.

Mariners are advised to navigate with caution.

Chart temporarily affected - Aus 252 - Aus 254 - AU5254P2**900(T)/2009 AUSTRALIA - QUEENSLAND - Keppel Bay - Mud Island to Centre Bank - Scientific instruments***Former Notice - 508(T)/2009 is cancelled*

Maritime Safety Queensland Notice 476(T)/2009 (AA418907)

Scientific instruments marked by special conical light buoys, *Fl. Y.5s*, exist in positions:

23° 32'.05 S 150° 51'.00 E

23° 30'.69 S 150° 56'.33 E

23° 26'.14 S 150° 57'.34 E

Chart temporarily affected – Aus 247 – Aus 265 - AU424150**959(T)/2009 AUSTRALIA - QUEENSLAND - Gladstone - South Channel - Scientific instrument**

Maritime Safety Queensland Notice 520(T)/2009 (AA421784)

A special light buoy, *Fl(5)Y.20s*, exists in position 23° 53'.77 S 151° 30'.25 E.

Mariners are not to use this buoy as a mooring.

Chart temporarily affected - Aus 246 - Aus 819 - AU424151**960(T)/2009 AUSTRALIA - QUEENSLAND - Gladstone - Targinie Channel - Light buoy withdrawn**

Maritime Safety Queensland Notice 484(T)/2009 (AA420605)

T10 light buoy (23° 47'.53 S 151° 11'.43 E) has been temporarily withdrawn.

Chart temporarily affected - Aus 244 - Aus 245 - AU5244X5**964(T)/2009 AUSTRALIA - QUEENSLAND - Hay Point - Depth information**

Maritime Safety Queensland Notice 514(T)/2009 (AA422706)

The available depth for the navigation channel in Hay Point tug harbour is 5.1m (LAT).

Lesser depths exist close to the outer edge of the channel and at the southern end of the tug berths.

Chart temporarily affected - Aus 249 - Aus 250 - AX 0249E - AU5250P2

965(T)/2009 AUSTRALIA - QUEENSLAND - Hay Point - Depth information*Former Notice - 168(T)/2009 is cancelled*

Maritime Safety Queensland Notice 542(T)/2009 (AA423447)

Available depths as at 13 August 2009:

	<i>Metres</i>
* HPS Berth No 1	16.3
HPS Berth No 2	16.5
DBCT Berth No 1	18.0
DBCT Berth No 2	18.1
DBCT Berth No 3	18.7
DBCT Berth No 4	18.6

* Indicates revised entry.

Chart temporarily affected - Aus 249 - Aus 250 - AX 0249E - AU5250P2**966(T)/2009 AUSTRALIA - QUEENSLAND - Mackay - Depth information***Former Notice - 564(T)/2009 is cancelled*

Maritime Safety Queensland Notice 519(T)/2009 (AA421785)

Available depths as at 31 July 2009:

	<i>Metres</i>
Entrance Transit (Eastern Bank)	8.6
Entrance Channel	9.0
Swing Basin (Inwards)	8.6
Swing Basin (Outwards)	8.6
* Berth No 1	10.8
* Berth No 3	12.9
* Composite Nos 3/4 Panamax Berth	12.9
* Berth No 4	10.0
* Berth No 5	12.3

* Caution: Lesser depths may occur in berthing boxes but are not considered to have an impact on shipping.

Chart temporarily affected - Aus 250 - AU5250P1**968(T)/2009 AUSTRALIA - QUEENSLAND - Arlington Reef - Wreck**

Maritime Safety Queensland Notice 480(T)/2009 (AA420619)

A wreck marked by a special light buoy, *Fl.Y.2-5s*, exists in position 16° 41'.88 S 145° 57'.19 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 830 - AX 6027S - AU417145**1014(T)/2009 AUSTRALIA - QUEENSLAND - Bundaberg - Depth information***Former Notice - 91(T)/2009 is cancelled*

Maritime Safety Queensland Notice 576(T)/2009 (AA425142)

Available depths as at 24 August 2009:

	<i>Metres</i>
* Sea Reach	9.5
* Middle Reach	9.5
* Inner Reach	9.5
Swing Basin	8.0
* Oil Berth	9.3
* BST Berth	11.0

The deep draught departure channel from the BST berth to Inner Reach has a depth of 9.3m.

* Indicates revised entry.

Chart temporarily affected - Aus 242 - Aus 243 - AU5XX242

1015(T)/2009 AUSTRALIA - QUEENSLAND - Gladstone - Depth information*Former Notice - 654(T)/2007 is cancelled*

Maritime Safety Queensland Notice 560(T)/2009 (AA424095)

Available depths as at 18 August 2009:

	<i>Metres</i>
Sea Channels:	
Wild Cattle Cutting	16.1
Boyne Island Cutting	16.1
Boyne Island Extension Channel	9.0
Golding Cutting	16.1
South Bypass Channel	7.1
Gatcombe Channel	16.3
Gatcombe Bypass Channel	12.5
Inner Channels:	
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
Berths:	
Boyne Smelter Wharf	15.0
South Trees East Wharf	12.8
South Trees West Wharf	12.8
Barney Point Wharf (east approach)	13.5
* Barney Point Wharf (west approach)	11.9
* 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 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**1019(T)/2009 AUSTRALIA - QUEENSLAND - Port Alma - Depth information***Former Notice - 623(T)/2009 is cancelled*

Maritime Safety Queensland Notice 559(T)/2009

Available depths as at 18 August 2009:

<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 - AU5247P1

1025(T)/2009 AUSTRALIA - QUEENSLAND - Thursday Island - Depth information

Former Notice - 448(T)/2009 is cancelled

Maritime Safety Queensland Notice 561(T)/2009 (AA424096)

Available depths as at 19 August 2009:

	<i>Metres</i>
* Hovell Bar	3.6
Main Wharf	3.1 (a sounding of 3.1m has been recorded approximately 60m south of Main Wharf. 4.1m alongside wharf)
Caltex Wharf	4.1
Engineers Wharf	3.5
Inner Harbour	4.6
Boat Channel	4.8

* Indicates revised entry.

Chart temporarily affected - Aus 293 - Aus 299 - AU5XX299**1117(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - North Stradbroke Island - Amity - Harbour works**

Former Notice - 719(T)/2009 is cancelled

Date - Until 31 December 2009

Maritime Safety Queensland Notice 282(T)/2009, 315(T)/2009, 605(T)/2009 (AA405402, AA411788, AA428787)

Construction works on the boat ramp (27° 24'.02 S 153° 26'.23 E) are in progress.

The boat ramp is closed to all vessels during this period.

Chart temporarily affected – Aus 236**1119(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - Manly - Harbour works; dredging operations**

Former Notice - 434(T)/2009 is cancelled

Date - Until 31 December 2009

Maritime Safety Queensland Notice 140(T)/2009, 319(T)/2009, 621(T)/2009 (AA390773, AA408563, AA429669)

Harbour works and dredging operations associated with the marina redevelopment are in progress in Manly Boat Harbour (27° 27'.22 S 153° 11'.40 E).

The dredge *Ken Harvey*, MT *Sealion*, MT *Turtle* and two spoil barges are onsite and will display appropriate lights and signals.

The dredge has deployed six anchors, marked by light buoys, Q. Y.

Lit mooring buoys, Q. Y, exist in positions 27° 26'.74 S 153° 12'.05 E and 27° 26'.70 S 153° 12'.14 E.

The starboard light beacon, *Fl.G.3s* (27° 27'.29 S 153° 11'.50 E), has been withdrawn.

The western internal channel is closed for the duration of the works. Vessels requiring access to and from the harbour must use the eastern internal entrance.

Vessels transiting the channel during daylight hours, Monday to Friday, are to contact the dredge on VHF Ch 13 to request the mooring wires be lowered.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 236 - AU5237X8**1128(T)/2009 AUSTRALIA - QUEENSLAND - Bundaberg - Town Reach - Obstruction**

Maritime Safety Queensland Notice 608(T)/2009 (AA428783)

An obstruction exists in position 24° 51'.74 S 152° 21'.30 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 242 - AU5XX242

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 - AU5XX257

1135(T)/2009 AUSTRALIA - QUEENSLAND - Port Douglas - Light beacon withdrawn; light buoy established

Maritime Safety Queensland Notice 625(T)/2009 (AA429773)

No 7 light beacon (16° 28'.98 S 145° 27'.57 E) has been withdrawn; a yellow light buoy, *Fl.G.2-5s*, exists in situ.

Chart temporarily affected – Aus 270 - AU5270P1

1136(T)/2009 AUSTRALIA - QUEENSLAND - Cooktown - Light buoy repositioned; light buoy established

Former Notice - 1077(T)/2009 is cancelled

Maritime Safety Queensland Notice 637(T)/2009 (AA430661)

No1 light buoy has been repositioned to 15° 27'.20 S 145° 15'.34 E. No2 port lateral light beacon (15° 27'.24 S 145° 15'.36 E) has been withdrawn; a port lateral light buoy, *Fl.R.2-5s*, exists in position 15° 27'.22 S 145° 15'.34 E.

Chart temporarily affected – Aus 270 - AU5270P6

1137(T)/2009 AUSTRALIA - TORRES STRAIT - Stephens Islet - Wreck northwards

Auscoast Warnings 215/2009, 216/2009 (AA429085, AA430163), Australian Maritime Safety Authority (AA429037)

A wreck, FV *Poseidon*, marked by a wreck light buoy, *Al.Oc.BuY*, exists in position 9° 23'.38 S 143° 34'.42 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 376 – Aus 377 – Aus 840 – AX 60377 - AU410143

1179(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - Ship to ship transfer

Date - Until 31 December 2009

Maritime Safety Queensland Notice 662(T)/2009 (AA432007)

Ship to ship transfer of LPG will be conducted at STS1 anchorage. During transfer operations an exclusion zone (1850 metres radius) exists from position 27° 17'.15 S 153° 16'.56 E.

Brisbane Harbour will promulgate the commencement and completion of the transfer operations on VHF Ch 12.

Chart temporarily affected – Aus 236

1180(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - Russell Island - Harbour works

Date - Until 9 November 2009

Maritime Safety Queensland Notice 643(T)/2009 (AA431938)

Harbour works associated with the extension to Russell Island jetty (27° 38'.73 S 153° 22'.86 E) are in progress.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 236

1187(T)/2009 AUSTRALIA - QUEENSLAND - Arkwright Point - Scientific instrument

Former Notice - 1093(T)/2008 is cancelled

Maritime Safety Queensland Notice 660(T)/2009 (AA431903)

A special light buoy, *Fl(5)Y.20s*, exists in position 26° 33'.95 S 153° 10'.90 E (WGS84 datum).

Mariners are not to use the buoy as a mooring.

Chart temporarily affected – Aus 365

1188(T)/2009 AUSTRALIA - QUEENSLAND - Gladstone - North Passage Island - Scientific instruments

Date - Until 14 February 2010

Maritime Safety Queensland Notice 645(T)/2009 (AA431934)

Subsurface scientific instruments exist in positions 23° 46'.00 S 151° 10'.45 E and 23° 45'.70 S 151° 10'.75 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 245 – Aus 819 - AU424151 - AU5244X5**1192(T)/2009 AUSTRALIA - QUEENSLAND - Townsville - Ross River - Harbour works**

Maritime Safety Queensland Notice 648(T)/2009 (AA432006)

Abutment works for the Townsville Port Access Road Bridge are in progress.

A port lateral light buoy, *Fl.R.2.5s*, exists in position 19° 16'.16 S 146° 50'.13 E, which marks the extremity of the works.

A silt curtain will enclose the reclamation works in preparation for the construction of the rock wall and bridge embankment. The works are expected to protrude approximately 50m into the river from the eastern bank and will be lit by flashing lights.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 257 - AU5XX257**1195(T)/2009 AUSTRALIA - QUEENSLAND - Karumba - Light buoys established**

Maritime Safety Queensland Notice 675(T)/2009 (AA433079)

Special light buoys, *Fl.Y.2.5s*, exist in the following positions:

17° 26'.63 S 140° 45'.02 E

17° 26'.74 S 140° 45'.23 E

17° 26'.44 S 140° 44'.91 E.

Chart temporarily affected – Aus 6**1236(T)/2009 AUSTRALIA - QUEENSLAND - Point Danger to Point Lookout - Scientific instruments**

Former Notice - 717(T)/2009 is cancelled

Maritime Safety Queensland Notice 692(T)/2009 (AA434918)

Special light buoys, *Fl(5)Y.20s*, exist in positions (WGS84 datum):

28° 10'.84 S 153° 34'.58 E

27° 58'.01 S 153° 26'.52 E

27° 28'.13 S 153° 37'.55 E.

Mariners are not to use these buoys as moorings.

Chart temporarily affected - Aus 230 - Aus 813 - Aus 814**1238(T)/2009 AUSTRALIA - QUEENSLAND - Brisbane River - Lytton Reach - Harbour works**

Maritime Safety Queensland Notice 699(T)/2009 (AA434984)

Harbour works associated with the refurbishment of Shell Oil Wharf (27° 25'.43 S 153° 07'.80 E) are in progress.

Barges, support vessels and divers are onsite.

Temporary mooring and fendering arrangements will be in place during the works. Further information on the works and berthing arrangements can be obtained through Brisbane Harbour on VHF Ch 12 or (07) 3305 1700.

Chart temporarily affected - Aus 238 - AU5237X8

1239(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - Redcliffe - Scientific instrument southeastwards*Former Notice* - 1091(T)/2008 is cancelled

Maritime Safety Queensland Notice 704(T)/2009 (AA435310)

A special light buoy, *Fl(5)Y.20s*, exists in position 27° 15'.10 S 153° 11'.94 E (WGS84 datum).

Mariners are not to use the buoy as a mooring.

Chart temporarily affected - Aus 236**Chart temporarily affected - Aus 248 - Aus 260 - Aus 261 - Aus 367 - Aus 822 - AX 0260E - AX 0367E - AX 0822E - AX 60260 - AX 67261 - AU423150 - AU5261P2****1243(T)/2009 AUSTRALIA - QUEENSLAND - Hay Point - Scientific instruments***Date* - Until 31 October 2010

Maritime Safety Queensland Notice 707(T)/2009 (AA435460)

Scientific instruments marked by surface floats exist in positions 21° 15'.18 S 149° 15'.83 E and 21° 16'.04 S 149° 18'.09 E.

Chart temporarily affected - Aus 249 - Aus 250 - Aus 823 - AX0249E - AX0823E - AU422149 - AU5250P2**1244(T)/2009 AUSTRALIA - QUEENSLAND - Nares Rock - Light unlit**

Maritime Safety Queensland Notice 700(T)/2009 (AA435157)

The light, *Fl(2)5s* (19° 46'.21 S 148° 21'.55 E), is unlit.**Chart temporarily affected - Aus 825 - Aus 826 - AU320148****1283(T)/2009 AUSTRALIA - QUEENSLAND - Gladstone - Scientific instruments**

Maritime Safety Queensland Notice 712(T)/2009 (AA435652)

Scientific instruments marked by special conical light buoys, *Q.Y.*, exist in the vicinity of:

<i>Position</i>	<i>Remarks</i>
23° 48'.56 S 151° 12'.87 E	18 structures deployed
23° 48'.99 S 151° 17'.63 E	18 structures deployed
23° 46'.08 S 151° 18'.20 E	72 structures deployed.

The extent of the areas will be marked by white poly-floats.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 244 - Aus 245 - Aus 819 - AU424151 - AU5244X5

1286(T)/2009 AUSTRALIA - QUEENSLAND - Townsville - Depth information

Former Notice - 967(T)/2009 is cancelled

Maritime Safety Queensland Notice 711(T)/2009 (AA435650)

Available depths as at 22 October 2009:

	<i>Metres</i>	<i>Remarks</i>
* Sea Channel	11.8	
* Platypus Channel	12.0	
Outer Harbour:		
Arrival Channel	7.6	West of a line from dolphin across end of berth pocket to edge of arrival channel
* Departure Channel	11.5	
Inner Harbour:		
Harbour	12.0	
<i>Berths:</i>		
* No 1	12.0	
No 2	12.3	
* No 3	11.7	
* No 4	10.6	
No 7	11.0	
* No 8	10.0	
No 9	11.7	
No 10	9.6	To seaward dolphin
* No 11	12.0	
CB Marine	1.9	
Between No 7 and No 8	10.4	Seaward of zero mark at No 7
* Between No 9 and No 10	10.5	Seaward of zero mark at No 10
Ross River Channel	1.0	
Ross Creek	-	No declared depth

* Indicates revised entry.

Chart temporarily affected - Aus 256 - Aus 257 - AU5XX257**1288(T)/2009 AUSTRALIA - QUEENSLAND - Allingham - Light removed**

Maritime Safety Queensland Notice 716(T)/2009 (AA436363)

The light, *Fl.2.5s* (18° 42'.41 S 146° 17'.89 E), has been temporarily removed.**Chart temporarily affected - Aus 827 - Aus 828 - AU419146****1323(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - Deception Bay - Wreck**

Maritime Safety Queensland Notice 751(T)/2009 (AA438766)

A stranded wreck marked by a special light buoy, *Fl.Y.2.5s*, exists in position 27° 09'.48 S 153° 03'.31 E (WGS84 datum).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 236**1327(T)/2009 AUSTRALIA - QUEENSLAND - Weipa - Depth information**

Former Notice - 1103(T)/2008 is cancelled

Maritime Safety Queensland Notice 759(T)/2009 (AA439470)

Available depths as at 16 November 2009:

	<i>Metres</i>
South Channel	11.1
Departure Channel	11.1
Cora Bank South Channel	7.3
* Humbug Point Approaches	8.5
Humbug Point Berth	9.5
* Evans Landing	9.4
Lorim Point East	12.3
Lorim Point West	12.3

* Indicates revised entry

Chart temporarily affected - Aus 4 - AU5XX4P1

1376(T)/2009 AUSTRALIA - QUEENSLAND - Brisbane River - Humbug Reach - Norris Point - Harbour works

Date - Until 22 January 2010

Maritime Safety Queensland Notice 785(T)/2009 (AA441675)

Harbour works are in progress in position 27° 28'.1 S 153° 03'.3 E.

Piling and supply barges are onsite and will display appropriate shapes and lights.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 238 - AU5237X8

1377(T)/2009 AUSTRALIA - QUEENSLAND - Brisbane River - Kangaroo Point - Harbour works

Date - Until 31 May 2010

Maritime Safety Queensland Notice 792(T)/2009 (AA442272)

Harbour works are in progress in position 27° 27'.99 S 153° 02'.26 E.

A silt curtain marked by flashing yellow lights exists in the vicinity.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 238 - AU5237X8

1378(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - Scarborough - Dredging operations

Date - Until 17 February 2010

Maritime Safety Queensland Notice 769(T)/2009 (AA440184)

Dredging operations are in progress in Scarborough Harbour in an area marked by light buoys, *Fl.R.3s*, bounded by the following positions:

27° 11'.57 S 153° 06'.39 E

27° 11'.56 S 153° 06'.49 E

27° 11'.59 S 153° 06'.54 E.

The dredges *Auckland*, *Westpark* and *Soundcem* are onsite and will display appropriate lights and shapes and will monitor VHF Ch 12.

Vessels transiting the harbour should do so by using the recognised harbour fairways that are situated south of the old pile mooring area. Vessels should not attempt to use the direct route located north of the old pile moorings, when travelling between the boat ramp and harbour entrance.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 236

1385(T)/2009 AUSTRALIA - QUEENSLAND - Wigton Island - Wreck

Maritime Safety Queensland Notice 783(T)/2009 (AA441672)

A wreck exists in position 20° 43'.92 S 149° 28'.23 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 251 - Aus 824 - AU421149

1386(T)/2009 AUSTRALIA - QUEENSLAND - Cape Bowling Green - Light buoy off station

Former Notice - 373(T)/2007 is cancelled

Maritime Safety Queensland Notice 225(T)/2007 (AA238610)

The isolated danger light buoy (19° 18'.30 S 147° 37'.25 E) is off station.

Chart temporarily affected - Aus 826 - Aus 827 - AU320147

1387(T)/2009 AUSTRALIA - QUEENSLAND - Yorkeys Knob - Light buoy established

Maritime Safety Queensland Notice 770(T)/2009 (AA440181)

A starboard lateral light buoy, *Fl.G.3s*, exists in position 16° 48'.09 S 145° 42'.82 E.**Chart temporarily affected - Aus 262 - Aus 830 – AX 6027S – AX 63262 - AU417145 - AU5262X4****1441(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - Lamb Island - Clarkes Point - Light beacon destroyed; light buoy established**

Maritime Safety Queensland Notice 801(T)/2009 (AA443377)

The starboard lateral light beacon (27° 36'.49 S 153° 24'.26 E) has been destroyed; a starboard lateral light buoy, *Fl.G.2.5s*, has been established in situ.**Chart temporarily affected - Aus 236 - AU428153****1443(T)/2009 AUSTRALIA - QUEENSLAND - Moreton Bay - Light beacon destroyed; light buoy established**

Maritime Safety Queensland Notice 816(T)/2009 (AA444942)

The port lateral light beacon (27° 06'.62 S 153° 12'.03 E) has been destroyed; a port lateral light buoy, *Q.R*, has been established in situ.**Chart temporarily affected - Aus 236 - AU428153****1444(T)/2009 AUSTRALIA - QUEENSLAND - Great Sandy Strait - Poona Point - Light buoys established**

Maritime Safety Queensland Notice 829(T)/2009 (AA445523)

White spar light buoys, *Q(3)Y.10s*, exist in positions 25° 41'.49 S 152° 55'.32 E and 25° 43'.14 S 152° 56'.34 E (WGS84 datum).**Chart temporarily affected - Aus 240 - Aus 817****1445(T)/2009 AUSTRALIA - QUEENSLAND - Gladstone - South Channel - Boyne Cutting - Light beacon destroyed; light buoy established**

Maritime Safety Queensland Notice 837(T)/2009 (AA445615)

S14 light beacon (23° 55'.90 S 151° 27'.42 E) has been destroyed; a port lateral light buoy, *Fl.R.4s*, has been established in situ.**Chart temporarily affected - Aus 246 - AU424151****1446(T)/2009 AUSTRALIA - QUEENSLAND - Gladstone - South Channel - Golding Cutting - Obstruction**

Maritime Safety Queensland Notice 820(T)/2009 (AA444932)

An obstruction marked by a special buoy exists in position 23° 55'.81 S 151° 26'.45 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 246 - AU424151

1447(T)/2009 AUSTRALIA - QUEENSLAND - Gladstone - Curtis Island - Drilling operations

Former Notice - 1380(T)/2009 is cancelled

Date - Until 28 February 2010

Maritime Safety Queensland Notice 821(T)/2009 (AA444933)

The jack-up barge *Sideson 3* and MT *Wandana* and *Lorraine* are conducting drilling operations in the following positions:

23° 46'.87 S 151° 12'.29 E	23° 46'.89 S 151° 12'.25 E
23° 46'.94 S 151° 12'.22 E	23° 46'.98 S 151° 12'.17 E
23° 47'.00 S 151° 12'.15 E	23° 46'.95 S 151° 12'.05 E
23° 46'.97 S 151° 12'.08 E	23° 47'.01 S 151° 12'.10 E
23° 47'.03 S 151° 12'.13 E	23° 47'.04 S 151° 12'.15 E
23° 47'.04 S 151° 12'.20 E	23° 47'.06 S 151° 12'.23 E
23° 47'.47 S 151° 12'.75 E	23° 47'.51 S 151° 12'.73 E
23° 47'.55 S 151° 12'.70 E	23° 47'.51 S 151° 12'.79 E
23° 47'.55 S 151° 12'.80 E	23° 47'.55 S 151° 12'.77 E
23° 47'.57 S 151° 12'.80 E	23° 47'.58 S 151° 12'.76 E
23° 47'.61 S 151° 12'.79 E	23° 47'.60 S 151° 12'.81 E
23° 47'.63 S 151° 12'.83 E	23° 47'.66 S 151° 12'.85 E
23° 47'.71 S 151° 12'.88 E	23° 47'.44 S 151° 12'.76 E
23° 47'.57 S 151° 12'.70 E	23° 47'.47 S 151° 12'.80 E
23° 47'.60 S 151° 12'.75 E	23° 47'.54 S 151° 12'.82 E
23° 47'.58 S 151° 12'.75 E	23° 47'.59 S 151° 12'.83 E
23° 47'.62 S 151° 12'.78 E	23° 47'.62 S 151° 12'.86 E
23° 47'.65 S 151° 12'.76 E	23° 47'.62 S 151° 12'.88 E
23° 47'.68 S 151° 12'.84 E	23° 47'.47 S 151° 12'.74 E
23° 47'.73 S 151° 12'.89 E	23° 47'.55 S 151° 12'.75 E
	23° 47'.66 S 151° 12'.82 E.

All vessels will display appropriate shapes and lights and will monitor VHF Ch 13 and Ch 16.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 245 - AU5244X5

1448(T)/2009 AUSTRALIA - QUEENSLAND - Gladstone - Scientific instruments

Date - Until 1 March 2010

Maritime Safety Queensland Notice 819(T)/2009 (AA444934)

Special light buoys exist in the following positions:

23° 33'.73 S 151° 01'.18 E	23° 43'.12 S 151° 08'.27 E
23° 44'.69 S 151° 09'.68 E	23° 42'.30 S 151° 08'.26 E
23° 40'.89 S 151° 07'.61 E	23° 39'.28 S 151° 05'.64 E
23° 37'.00 S 151° 02'.64 E	23° 43'.99 S 151° 09'.26 E
23° 43'.08 S 151° 08'.78 E	23° 44'.38 S 151° 10'.78 E
23° 47'.48 S 151° 10'.73 E	23° 47'.26 S 151° 12'.00 E
23° 46'.02 S 151° 09'.54 E	23° 45'.89 S 151° 10'.80 E
23° 46'.64 S 151° 09'.30 E	23° 46'.83 S 151° 11'.13 E
23° 46'.35 S 151° 10'.95 E	23° 45'.48 S 151° 10'.63 E
23° 45'.07 S 151° 10'.31 E	23° 47'.17 S 151° 11'.54 E
23° 47'.60 S 151° 12'.52 E	23° 47'.74 S 151° 13'.01 E
23° 48'.09 S 151° 11'.12 E	23° 48'.46 S 151° 10'.25 E
23° 49'.18 S 151° 13'.28 E	23° 49'.15 S 151° 14'.30 E
23° 48'.68 S 151° 13'.60 E	23° 48'.51 S 151° 12'.95 E
23° 49'.98 S 151° 15'.68 E	23° 50'.65 S 151° 20'.65 E
23° 47'.81 S 151° 13'.61 E	23° 46'.67 S 151° 15'.76 E
23° 48'.63 S 151° 15'.42 E	23° 48'.27 S 151° 17'.72 E
23° 46'.99 S 151° 18'.40 E	23° 49'.54 S 151° 18'.42 E
23° 47'.86 S 151° 14'.12 E	23° 47'.72 S 151° 16'.53 E
23° 48'.09 S 151° 19'.15 E	23° 51'.29 S 151° 19'.17 E
23° 52'.58 S 151° 19'.79 E	23° 51'.18 S 151° 17'.93 E
23° 51'.06 S 151° 17'.21 E	23° 51'.58 S 151° 18'.15 E
23° 57'.67 S 151° 23'.26 E	23° 55'.19 S 151° 21'.57 E
23° 56'.78 S 151° 21'.43 E	23° 45'.18 S 151° 18'.96 E
23° 52'.89 S 151° 22'.65 E	23° 57'.42 S 151° 29'.05 E
24° 00'.83 S 151° 30'.55 E	23° 59'.77 S 151° 27'.70 E

Pink poly-floats exist in the following positions:

23° 44'.41 S 151° 11'.35 E	23° 44'.20 S 151° 11'.87 E
23° 43'.95 S 151° 12'.42 E	23° 43'.79 S 151° 13'.02 E
23° 43'.47 S 151° 13'.54 E	23° 48'.58 S 151° 10'.13 E
23° 48'.64 S 151° 10'.00 E	23° 48'.48 S 151° 09'.97 E
23° 48'.47 S 151° 09'.79 E	23° 48'.54 S 151° 09'.81 E
23° 48'.63 S 151° 09'.86 E	23° 48'.75 S 151° 09'.82 E
23° 48'.78 S 151° 09'.76 E	23° 49'.15 S 151° 12'.16 E
23° 49'.22 S 151° 12'.69 E	23° 48'.82 S 151° 11'.97 E
23° 51'.33 S 151° 10'.68 E	23° 50'.96 S 151° 11'.12 E
23° 50'.35 S 151° 11'.92 E	23° 49'.56 S 151° 13'.05 E
23° 49'.96 S 151° 13'.23 E	23° 50'.40 S 151° 13'.04 E
23° 50'.69 S 151° 12'.63 E	23° 51'.13 S 151° 12'.53 E
23° 51'.79 S 151° 11'.93 E	23° 51'.58 S 151° 12'.29 E
23° 52'.17 S 151° 11'.29 E	23° 53'.40 S 151° 11'.38 E
23° 54'.10 S 151° 11'.02 E	23° 52'.73 S 151° 11'.72 E
23° 50'.89 S 151° 14'.07 E	23° 50'.61 S 151° 14'.42 E
23° 51'.12 S 151° 14'.47 E	23° 50'.92 S 151° 13'.48 E
23° 51'.39 S 151° 14'.20 E	23° 51'.60 S 151° 13'.89 E
23° 50'.12 S 151° 15'.11 E	23° 50'.28 S 151° 14'.99 E
23° 50'.13 S 151° 14'.65 E	23° 50'.37 S 151° 14'.34 E
23° 50'.54 S 151° 13'.99 E	23° 50'.91 S 151° 13'.89 E
23° 49'.96 S 151° 14'.95 E	23° 49'.80 S 151° 14'.87 E
23° 49'.63 S 151° 14'.68 E	23° 52'.82 S 151° 18'.89 E
23° 52'.87 S 151° 19'.00 E	23° 52'.62 S 151° 19'.33 E
23° 54'.70 S 151° 18'.14 E	23° 52'.71 S 151° 18'.68 E
23° 53'.23 S 151° 18'.83 E	23° 53'.68 S 151° 18'.65 E
23° 54'.00 S 151° 18'.31 E	23° 53'.93 S 151° 18'.69 E
23° 53'.90 S 151° 18'.93 E	23° 52'.21 S 151° 18'.20 E
23° 51'.89 S 151° 18'.19 E	23° 53'.52 S 151° 18'.10 E
23° 53'.99 S 151° 18'.10 E	23° 54'.34 S 151° 18'.26 E
23° 52'.54 S 151° 18'.22 E	23° 53'.01 S 151° 18'.17 E
23° 53'.06 S 151° 17'.67 E	23° 52'.88 S 151° 17'.58 E
23° 52'.63 S 151° 17'.56 E	23° 53'.37 S 151° 17'.78 E
23° 53'.52 S 151° 17'.57 E	23° 53'.72 S 151° 17'.59 E
23° 53'.94 S 151° 17'.18 E	23° 53'.13 S 151° 17'.96 E
23° 55'.11 S 151° 17'.97 E	23° 55'.52 S 151° 17'.67 E
23° 55'.94 S 151° 17'.57 E	23° 56'.38 S 151° 17'.78 E
23° 56'.45 S 151° 18'.10 E	23° 56'.99 S 151° 18'.73 E
23° 57'.24 S 151° 18'.79 E	23° 57'.14 S 151° 18'.97 E
23° 56'.71 S 151° 18'.12 E	23° 56'.89 S 151° 18'.31 E
23° 57'.11 S 151° 18'.55 E	23° 56'.94 S 151° 19'.53 E
23° 57'.03 S 151° 20'.06 E	23° 57'.48 S 151° 20'.32 E
23° 57'.98 S 151° 20'.17 E	23° 53'.06 S 151° 19'.11 E
23° 53'.23 S 151° 19'.20 E	23° 53'.44 S 151° 19'.19 E
23° 53'.65 S 151° 19'.24 E	23° 53'.85 S 151° 19'.27 E
23° 54'.04 S 151° 19'.40 E	23° 54'.22 S 151° 19'.54 E
23° 54'.36 S 151° 19'.65 E	23° 54'.49 S 151° 19'.80 E
23° 54'.62 S 151° 19'.88 E	23° 54'.54 S 151° 19'.93 E
23° 54'.70 S 151° 19'.99 E	23° 57'.23 S 151° 21'.61 E
23° 57'.50 S 151° 21'.10 E	23° 58'.52 S 151° 20'.10 E
23° 58'.23 S 151° 20'.76 E	23° 58'.68 S 151° 19'.39 E
23° 58'.96 S 151° 19'.11 E	24° 00'.25 S 151° 25'.50 E
23° 59'.97 S 151° 25'.39 E	23° 59'.94 S 151° 25'.06 E
24° 00'.41 S 151° 25'.18 E	24° 00'.21 S 151° 24'.90 E
24° 00'.16 S 151° 24'.57 E	24° 02'.23 S 151° 27'.90 E
24° 02'.44 S 151° 28'.14 E	24° 02'.65 S 151° 28'.33 E
24° 02'.85 S 151° 28'.55 E	24° 03'.20 S 151° 28'.51 E
24° 03'.54 S 151° 28'.68 E	

Chart temporarily affected - Aus 244 - Aus 245 - Aus 246 - Aus 247 - AU424151 - AU5244X5

1449(T)/2009 AUSTRALIA - QUEENSLAND - Percy Isles - Middle Island - Scientific instrument

Date - Until 31 March 2010

Maritime Safety Queensland Notice 811(T)/2009 (AA443483)

A special light beacon, *Fl.Y.3s*, exists in position 21° 39'.19 S 150° 14'.62 E.

Chart temporarily affected - Aus 822 - Aus 823 - AX 0822E - AX 0823E - AU322150

1450(T)/2009 AUSTRALIA - QUEENSLAND - Hay Point to Bailey Islet - Scientific instruments

Former Notice - 1191(T)/2009 is cancelled

Maritime Safety Queensland Notices 704(T)/2009, 827(T)/2009 (AA435310, AA445125)

Special light buoys, *F(5)Y.20s*, exist in positions:

21° 16'.32 S 149° 18'.70 E
21° 05'.29 S 149° 33'.12 E.

Mariners are not to use these buoys as moorings.

Chart temporarily affected - Aus 249 - Aus 250 - Aus 823 - Aus 824 - AX 0249E - AX 0823E - AU422149 - AU5250P2

1451(T)/2009 AUSTRALIA - QUEENSLAND - Shute Bay - Obstructions

Maritime Safety Queensland Notice 800(T)/2009 (AA443468)

Obstructions exist in positions 20° 17'.52 S 148° 46'.90 E and 20° 17'.50 S 148° 46'.90 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 252 - Aus 253 - AU421148

1453(T)/2009 AUSTRALIA - QUEENSLAND - Townsville - Ross River - Dredging operations

Date - Until 31 January 2010

Maritime Safety Queensland Notice 814(T)/2009 (AA443313)

The dredge *Percy* is conducting dredging operations in the vicinity of position 19° 16'.56 S 146° 49'.81 E.

The dredge will display appropriate lights and shapes and will monitor VHF Ch 12 and Ch 16.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 257 - AU5XX257

1457(T)/2009 AUSTRALIA - QUEENSLAND - Karumba - Norman River - Wreck

Maritime Safety Queensland Notice 830(T)/2009 (AA445524)

A stranded wreck marked by an isolated danger light, *VQ(2).4s*, exists in position 17° 28'.71 S 140° 50'.34 E.

Chart temporarily affected - Aus 6

NORTHERN TERRITORY

950(T)/2004 AUSTRALIA - NORTHERN TERRITORY - Troubadour Shoals - Scientific instruments.*Former Notice - 849(T)/2002 is cancelled*

MetOcean (A113058).

Scientific instruments, marked by white floats, exist in positions (WGS 84) as follows:

11° 32'.76 S 128° 14'.54 E
 11° 32'.46 S 128° 14'.43 E
 11° 09'.78 S 128° 10'.90 E
 11° 09'.88 S 128° 10'.70 E
 10° 25'.46 S 128° 13'.59 E
 10° 25'.49 S 128° 13'.32 E
 9° 49'.63 S 128° 10'.18 E
 9° 49'.62 S 128° 09'.92 E
 9° 38'.27 S 128° 07'.50 E
 9° 38'.27 S 128° 07'.19 E

* Indicates new or revised position.

Mariners are not to use the buoys as a mooring.

Chart temporarily affected - Aus 309 - Aus 311 - Aus 315 - AX 70309.**476(T)/2006 AUSTRALIA - TIMOR SEA - Sahul Banks - Bayu-Undan - Scientific instruments.***Former Notice - 840(T)/2005 is cancelled*

MetOcean (A192369).

Scientific instruments, marked by special light buoys, *F(5)Y.20s*, exist in positions:

11° 04'.61 S 126° 35'.40 E
 11° 04'.95 S 126° 35'.90 E

Chart temporarily affected - Aus 312.**662(T)/2007 AUSTRALIA - NORTHERN TERRITORY - Darwin - Depth information***Former Notice - 1134(T)/2006 is cancelled*

Darwin Port Corp Notice 19/2006 (A200619)

Available depths as at July 2007:

<i>Berths</i>	<i>Metres</i>
East Arm 0-300m	12.2
East Arm 300-600m	12.5
East Arm BLB	11.6

Available depths as at December 2004:

No 1 Iron Ore	11.7
No 2 Fort Hill East	9.1
No 2 Fort Hill West	10.2
No 3 Stokes Hill East	6.6
No 3 Stokes Hill West	6.4
No 4 Stokes Hill East	3.1
No 4 Stokes Hill Middle	2.8
No 4 Stokes Hill West	4.3

* Indicates new or revised entry.

Chart temporarily affected – Aus 28

982(T)/2008 AUSTRALIA - TIMOR SEA - Osborn Passage - Drilling operations*Former Notice* - 467(T)/2008 is cancelled*Date* - Until 28 February 2009

Coogee Resources (AA360753, AA353657, AA360912)

Drill rig *West Atlas* is undertaking drilling operations for the Montara Development.

Construction vessels will be on site from September 2008.

A production platform marked by two fixed white lights will be established in position 12° 40'.34 S 124° 32'.37 E

A FPSO will be established in position 12° 39'.59 S 124° 32'.68 E.

Subsea moorings will be established in positions:

12° 30'.08 S 124° 25'.09 E

12° 31'.50 S 124° 27'.56 E

12° 32'.49 S 124° 26'.63 E

Unlit mooring buoys exist in positions 12° 40'.66 S 124° 32'.68 E and 12° 41'.96 S 124° 32'.31 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 314 - Aus 319 - Aus 4721 (INT 721) - Aus 4722 (INT 722) - AU313124**222(T)/2009 AUSTRALIA - NORTHERN TERRITORY - Darwin - Cullen Bay - Light buoy off station**

Darwin Port Corporation (AA384605)

The port lateral light buoy, *Q.R.*, (12° 27'.11S 130° 48'.84 E) is off station.**Chart temporarily affected - Aus 24 - AU5XXX24****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 - AX 0312F - AX 4721F - Aus 4721(INT 721) - AU311126**790(P)/2009 AUSTRALIA - NORTHERN TERRITORY - Melville Island - Cape Gambier - Reef delineation***Former Notice* - 882(P)/2006 is cancelledHMAS *Mermaid* (AA202844)

The drying edge of the reef to west of Cape Gambier has been found to lie 200m to 300m SW of charted position.

Mariners are advised to navigate with caution in the area.

Chart which will be affected – Aus 20

WESTERN AUSTRALIA

523(T)/2004 WESTERN AUSTRALIA - Dampier Archipelago - Scientific instruments northwestwards.

Former Notice - 307(T)/2004 is cancelled
MetOc (A90105).

Scientific instruments exist as follows:

<i>Position</i>	<i>Remarks</i>
19° 35'.95 S 116° 07'.44 E	<i>Fl. Y. 5s</i>
19° 35'.85 S 116° 07'.43 E	<i>Fl. Y. 5s</i>

Chart temporarily affected - Aus 327 - Aus 415.

800(P)/2005 INDIAN OCEAN - Cocos Islands - Light beacon.

Date – On or about 30 June 2006
Former Notice - 641(P)/2004 is cancelled
CI Ports (A157789).

A light beacon, the front lead for the amended shipping entrance leading line 194.3°, will be established in position 12° 06'.328 S 96° 51'.789 E.

A special spar light buoy, *Iso. Y. 2s*, exists in situ.

Chart which will be affected - Aus 607.

729(T)2006 WESTERN AUSTRALIA - Albany - Light beacon; light buoy.

List of Lights Vol K/2006 - 1803.7
Albany Port Authority (A198134).

The No 7 light beacon has been removed; a starboard lateral spar light buoy, *Fl.G. 1.5s*, exists in situ.

Chart temporarily affected - Aus 109.

779(T)/2006 WESTERN AUSTRALIA - Esperance - Scientific instrument.

DPI WA (A198169).

A special buoy with topmark, exists in position 33° 50'.5 S 121° 55'.9 E.

Chart temporarily affected - Aus 119.

1135(T)/2006 INDIAN OCEAN - Scientific instruments.

UKHO (A210240, A210241).

Scientific instruments exist in positions:

1° 31'.2 N 90° 06'.8 E
0° 02'.3 N 89° 52'.8 E
1° 34'.2 N 80° 33'.5 E
0° 01'.1 N 80° 31'.7 E
1° 30'.3 S 80° 32'.4 E

5M clearance is requested.

Chart temporarily affected - Aus 4071.

893(T)/2007 AUSTRALIA - WESTERN AUSTRALIA - Broome - Red Bluff - Wreck

Broome Port Authority (AA286647), Wreck is MV *Ida Lloyd*.

A wreck exists in position 17° 51'.0 S 122° 12'.1 E.

Chart temporarily affected – Aus 50

1034(T)/2007 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Depth information

Former Notice - 705(T)/2007 is cancelled
Dampier Port Authority Notice 48/2007 (AA295909)

Available depths as at 7 November 2007:

	<i>Metres</i>
East Intercourse Island	20.0
Ell Layby berth	19.3
PPT1	17.2
PPT2	18.0
PPT3	18.0
PPT4	18.0
PPT5	18.0
Service Wharf	6.7
* Mermaid Mariner Supply Base Channel	5.4
* Berthing pocket	7.2
* Indicates revised entry.	

Chart temporarily affected - Aus 57 - Aus 58 - Aus 59**218(T)/2008 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Mermaid Sound - Anchorages**

Port of Dampier Notice 2/2008 (AA313317)

The Supply Vessel and Small Craft Anchorage centred on 20° 35'.413 S 116° 44'.545 E (WGS84 Datum) has been temporarily revoked.

Vessels awaiting Dampier Cargo Wharf berth allocation are to use a Supply Vessel and Small Craft Anchorage within the following positions:

20° 35'.924 S 116° 44'.638 E
20° 35'.262 S 116° 44'.066 E
20° 34'.980 S 116° 43'.811 E
20° 35'.257 S 116° 43'.445 E
20° 35'.545 S 116° 43'.709 E
20° 36'.164 S 116° 44'.338 E

Vessels awaiting berth allocation at either King Bay Supply Base or Mermaid Marine Supply Base will use the Philip Point Anchorage, within the following positions:

20° 36'.525 S 116° 43'.944 E
20° 37'.155 S 116° 44'.622 E
20° 37'.589 S 116° 43'.961 E

All vessels using this anchorage should ensure that a minimum of 100 metres distance from the Naval Buoy (20° 37'.533 S 116° 44'.516 E) is maintained.

PIE3 Anchorage been amended as follows:

20° 35'.285 S 116° 41'.987 E
20° 36'.192 S 116° 42'.683 E
20° 36'.688 S 116° 41'.711 E

Approval to use this anchorage must be sought from Dampier Port Communications on VHF 11.

Chart temporarily affected - Aus 57 - Aus 58 - Aus 59**259(T)/2008 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Light buoy established**

Dampier Port Authority Notice 5/2008 (AA316219)

A special pillar light buoy, *Fl. Y. 3s*, exists in position 20° 34'.56 S 116° 45'.39 E.

Chart temporarily affected - Aus 58 - Aus 59

260(T)/2008 AUSTRALIA - WESTERN AUSTRALIA - Dampier – Mermaid Sound – Harbour works; exclusion zone
Dampier Port Authority Notices 3/2008 & 6/2008 (AA316310, AA316886, AA316887)

Harbour works are in progress in the vicinity of Holden Point (20° 36'.2 S 116° 45'.5 E) for the Pluto Project.

An exclusion zone exists around Holden Point with radius 0.5M from point 20° 36'.199 S 116° 45'.498 E.

All vessels other than those which have been approved and are associated with the project are required to stay clear of the area.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 57 - Aus 58 - Aus 59

470(T)/2008 AUSTRALIA - WESTERN AUSTRALIA - Fremantle - Rous Head - Obstruction; submarine pipeline; light buoys

Former Notice - 175(T)/2007 is cancelled
Fremantle Ports Notice 5/2008 (AA329704, AA329863)

A subsurface power generating structure exists within an exclusion zone marked by cardinal pillar light buoys with topmarks in positions:

<i>Position (WGS84 datum)</i>	<i>Remarks</i>
32° 02'.72 S 115° 43'.73 E	north cardinal Q
32° 02'.83 S 115° 43'.73 E	south cardinal Q(6)+LFI.15s
32° 02'.77 S 115° 43'.79 E	east cardinal Q(3)10s
32° 02'.77 S 115° 43'.67 E	west cardinal Q(9)15s

A special spherical light buoy, Q(5)Y.20s, exists in position 32° 02'.76 S 115° 43'.72 E.

A submerged pipeline connects the structure to the shore in position 32° 02'.76 S 115° 43'.92 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 112 - Aus 113 – AX 63112

616(T)/2008 AUSTRALIA - WESTERN AUSTRALIA - Esperance - Depth information
Esperance Port Authority (AA340362)

Available depths as of 26 May 2008:

<i>Location</i>	<i>Metres</i>
Berth No 1 and 2	13.6
Berth No 3	18.6
Entrance Channel	18.0

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 119

764(T)/2008 AUSTRALIA - WESTERN AUSTRALIA - Emu Point - Light
Albany Port Authority (AA348244)

The light (34° 59'.95 S 117° 56'.75 E (WGS84 datum)) is temporarily altered to *F.Bu.*

Chart temporarily affected - Aus 110 - Aus 118 - Aus 759

827(T)/2008 AUSTRALIA - WESTERN AUSTRALIA - Port Hedland - Lights established
Port Hedland Port Authority Notice 14/2008 (AA352255)

Temporary leading lights, *F.Bu* bearing 007°, exist in positions 20° 19'.058 S 118° 34'.555 E and 20° 18'.906 S 118° 34'.576 E. They mark the edge of the shallow area 9.3 metres.

Chart temporarily affected - Aus 54

946(T)/2008 AUSTRALIA - WESTERN AUSTRALIA - Geraldton - Depth information
Geraldton Port Authority (AA358403, AA358405)

Available depths as at 27 September 2007:

<i>Berth</i>	<i>Metres</i>
No 1	9.8
No 2	9.8
No 3	12.5
No 4	12.6
No 5	13.3
No 6	12.3
<i>Channel</i>	
Harbour Basin	12.4
Inside western breakwater beacon 20 to 22	12.8
Beacon 20	13.1
Beacon 16 to 20	13.5
Beacon 4 to 14	14.0
Beacon 2	14.8

Chart temporarily affected - Aus 81

1052(T)/2008 AUSTRALIA - WESTERN AUSTRALIA - Yampi Sound - Parakeet Channel - Comber Rock - Buoy off station

Department for Planning and Infrastructure (AA362535)

The isolated danger buoy (16° 06'.44 S 123° 39'.61 E (WGS84 datum)) is off station.

Chart temporarily affected – Aus 40 – Aus 732 – Aus 733

1157(P)/2008 AUSTRALIA - WESTERN AUSTRALIA - Rottnest Island - Scientific instrument to be established

Date - On or about 30 November 2008

CSIRO (AA357780, AA357782, AA359084)

A subsurface scientific instrument will be established in position 32° 00'.00 S 115° 25'.00 E.

Chart which will be affected – Aus 334 – Aus 754 – AX 0334E – AX 0754E – AX 66002 - AU432115

1158(P)/2008 AUSTRALIA - WESTERN AUSTRALIA - Esperance - Charley Island - Scientific instrument to be established

Date - On or about 31 December 2008

CSIRO (AA357780, AA357782, AA359084)

A subsurface scientific instrument will be established in position 33° 56'.00 S 121° 51'.00 E.

Chart which will be affected – Aus 119 – Aus 762

1254(T)/2008 AUSTRALIA - WESTERN AUSTRALIA - Port Hedland - Scientific instruments

Former Notice - 74(T)/2008 is cancelled

MetOcean Engineers (AA370839, AA371914)

Scientific instruments exist as follows:

<i>Position (WGS84 datum)</i>	<i>Remarks</i>
20° 15'.54 S 118° 33'.81 E	5 poly floats
20° 13'.60 S 118° 30'.63 E	5 poly floats
20° 10'.62 S 118° 30'.50 E	5 poly floats
20° 08'.07 S 118° 23'.87 E	5 poly floats
20° 08'.05 S 118° 24'.15 E	5 poly floats
20° 08'.02 S 118° 24'.10 E	FI(5)Y.20s
20° 07'.88 S 118° 23'.89 E	5 poly floats
20° 07'.84 S 118° 24'.26 E	FI(5)Y.20s
20° 07'.83 S 118° 24'.20 E	5 poly floats

Chart temporarily affected - Aus52 - Aus53 - Aus54 - Aus739 - Aus740

1255(T)/2008 AUSTRALIA - WESTERN AUSTRALIA - Glomar Shoal - Scientific instruments northwards

Former Notice - 1032(T)/2007 is cancelled

MetOcean Engineers (AA371914)

Scientific instruments exist as follows:

<i>Position (WGS 84 datum)</i>	<i>Remarks</i>
18° 45'.87 S 117° 02'.55 E	FI(5)Y.20s
19° 31'.43 S 117° 03'.15 E	FI(5)Y.20s

Chart temporarily affected - Aus327

100(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Browse Island - Scientific instrument northwestwards

Former Notice - 672(T)/2008 is cancelled

Date - Until 28 February 2009

Shell Development (Australia) Pty Ltd (AA378754)

A scientific instrument exists in position 13° 30'.92 S 123° 20'.08 E.

Chart temporarily affected - Aus 319 – AX 0319F - AU314123

273(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Fremantle - Anchorages

Fremantle Ports Notice 1(T)/2009 (AA387280)

Anchorages with a 500 metre radius swinging circle exist as follows:

<i>Desig</i>	<i>Position</i>
O1	31° 53'.23 S 115° 38'.91 E
O2	31° 54'.04 S 115° 39'.25 E
O3	31° 54'.49 S 115° 40'.14 E
O4	31° 55'.07 S 115° 39'.07 E
O5	31° 55'.58 S 115° 39'.88 E
O6	31° 55'.94 S 115° 38'.94 E
O7	31° 56'.44 S 115° 39'.79 E

Chart temporarily affected – Aus 112 – Aus 754 – AX 0754E – AX 63112 – AX 66002

331(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Port Hedland - Harbour works

Date - Until 28 February 2010

Port Hedland Port Authority Notice 3/2009 (AA390591)

Works associated with the construction of the new Utah Point berth facility are in progress.

The area bounded by the following positions (WGS84 datum) is prohibited to all recreation vessels and is restricted to authorized vessels only:

20° 18'.82 S	118° 34'.12 E
20° 18'.82 S	118° 34'.16 E
20° 19'.00 S	118° 34'.17 E
20° 19'.00 S	118° 34'.06 E

Chart temporarily affected - Aus 52 - Aus 53 - Aus 54

332(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Port Hedland - Dredging operations

Port Hedland Port Authority Notice 4/2009 (AA390589)

The dredge *DN150* and barges *Soundcem 2* and *Soundcem 3* are conducting dredging operations in an area bounded by the following positions (WGS84 datum):

20° 19.00 S	118° 34'.06 E
20° 19.00 S	118° 34'.17 E
20° 19.51 S	118° 34'.42 E
20° 19.53 S	118° 34'.08 E

The dredge *Leonardo da Vinci* will be onsite from early April.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 52 - Aus 53 - Aus 54

333(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - King George Sound - North Channel to Barker Bay -**Scientific instruments***Date* - Until 31 May 2010

Albany Port Authority Notice 2(T)/2009 (AA391679)

Scientific instruments marked by special light buoys, Q(4)Y.5s, exist in positions (WGS84 datum):

35° 02'.80 S 117° 55'.36 E

35° 02'.26 S 118° 01'.51 E.

Chart temporarily affected - Aus 109 - Aus 110 - Aus 118 - AU5XX109**451(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Geraldton - Light buoy off station**

Geraldton Port Authority (AA397386)

The port lateral light buoy, *Fl(4)R.10s* (28° 42'.70 S 114° 34'.50 E (WGS84 datum)), is currently in position 28° 42'.64 S 114° 34'.55 E.Vessels passing close to the south of the light buoy will have a least depth of *8.1m***Chart temporarily affected - Aus 81 - Aus 751****453(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Kwinana - Light unlit**

Fremantle Ports Notice 5(T)/2009 (AA398201)

The light K1777.15 (32° 12'.57 S 115° 46'.09 E) is unlit.

Chart temporarily affected - Aus 114 - Aus 117 - AX 70117 - AU5111X4**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 - AU434115**570(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Geraldton - Champion Bay - Light buoy withdrawn**

Geraldton Port Authority (AA402991)

The isolated danger light buoy (28° 43'.88 S 114° 33'.25 E) has been withdrawn; a special buoy exists in situ.

Chart temporarily affected - Aus 81**674(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Lacepede Channel to Cape Boileau - Scientific instruments***Former Notice* - 270(T)/2009 is cancelled*Date* - Until 31 July 2009

MetOcean Engineers (AA407165)

Scientific instruments exist as follows (WGS84 datum):

<i>Position</i>	<i>Remarks</i>
17° 13'.93 S 122° 05'.06 E	subsurface
17° 28'.27 S 122° 05'.03 E	subsurface
17° 30'.07 S 121° 53'.45 E	subsurface
17° 43'.53 S 122° 02'.03 E	subsurface

Chart temporarily affected - Aus 323 - Aus 324**677(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Port Hedland - Light established**

Port Hedland Port Authority Notice 6/2009 (AA408186)

A light, *Q.Bu*, exists in position 20° 18'.97 S 118° 34'.04 E.**Chart temporarily affected - Aus 54 - AU5XXX54**

679(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Rankin Bank - Scientific instruments
MetOcean Engineers (AA407165)

Scientific instruments exist as follows:

<i>Position</i>	<i>Remarks</i>
19° 51'.96 S 115° 17'.10 E	subsurface
19° 52'.00 S 115° 15'.99 E	subsurface
19° 53'.01 S 115° 16'.54 E	subsurface
19° 56'.12 S 115° 22'.85 E	subsurface
19° 56'.59 S 115° 22'.87 E	lit buoy, <i>F(5)Y.20s</i>
19° 56'.60 S 115° 23'.00 E	5 poly floats

Chart temporarily affected - Aus 328 - AU320115

680(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - North West Cape - FPSO off station

Date - Until 30 September 2009

Apache Energy Ltd (AA410103)

The FPSO Ningaloo Vision (21° 24'.21 S 114° 05'.25 E (WGS84 datum)) is off station.

Chart temporarily affected - Aus 328 - Aus 329 - Aus 744 - AU422114

792(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Perth Canyon - Scientific instruments westwards

Date - Until 1 November 2012

CSIRO (AA414960)

Subsurface scientific instruments, suspended 20m below the surface, exist in positions:

31° 55'.30 S 115° 00'.60 E	32° 03'.20 S 115° 04'.96 E
31° 59'.00 S 115° 14'.00 E	31° 46'.23 S 114° 56'.60 E
31° 43'.16 S 115° 01'.80 E	31° 41'.60 S 115° 07'.00 E
31° 38'.80 S 115° 11'.75 E	31° 37'.60 S 115° 14'.75 E

Chart temporarily affected – Aus 334 – Aus 754 – AX 0334E – AX 0754E – AX 66002 - AU332114 - AU432115 - AU433115

793(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Fremantle - Depth information

Former Notice - 128(T)/2008 is cancelled

Fremantle Ports Notice 6(T)/2009 (AA414237)

Available depths as at 19 June 2009:

<i>Berth</i>	<i>Metres</i>
No 1	11.0
No 2	11.0
* No 4	12.4
No 5	12.4
No 6	12.4
* No 7	12.9
* No 8	13.0
* No 9	13.0
* No 10	10.0
* No 11	10.2
No 12	10.8
C	10.4
D	11.0
E	10.5
F	10.4
G	10.5
H	10.3

* Indicates new or revised entry.

Note: Victoria Quay berths A and B are no longer used for commercial operations.

Maximum draft of vessels using inner harbour berths must be obtained by contacting the Harbour Master's office.

Chart temporarily affected – Aus 113 - AU5XX113

849(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Broome - Gantheaume Bay - Obstruction, light buoy

Date - Until 31 July 2009

Port of Broome Port Authority 8/2009 (AA417682)

A special light buoy, *Fl.2s*, marking a chain cable extending 750m from the buoy, has been established in position 17° 52' S 122° 06' E (WGS datum)

Chart temporarily affected - Aus 50 - Aus 324**911(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Obstruction**

Date - Until 31 January 2010

Port of Dampier Notice 22/2009 (AA420011)

An obstruction is marked by two special light buoys, Q, in positions:

20° 32'.00 S 116° 44'.50 E

20° 31'.51 S 116° 45'.03 E

Chart temporarily affected – Aus 57 – Aus 58 – Aus 741**914(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - North West Cape - Scientific instruments**

Woods Hole Group (AA418777)

Bottom mounted scientific instruments exist in the following positions:

21° 39'.00 S 114° 59'.82 E

21° 26'.64 S 114° 51'.96 E

Scientific instruments exist 30m below the surface in the following positions:

19° 51'.30 S 113° 10'.96 E

20° 27'.90 S 113° 48'.90 E

20° 56'.34 S 114° 18'.06 E

20° 59'.88 S 114° 22'.68 E

21° 07'.02 S 114° 30'.96 E

21° 17'.22 S 114° 41'.34 E

Chart temporarily affected – Aus 64 – Aus 328 – Aus 329 – Aus 415 – Aus 416 – Aus 743 – Aus 744 – AX 0415F - AU321114 - AU422114**975(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Fremantle - Harbour works**

Fremantle Ports 7(P)/2009 (AA421786)

Works associated with the construction of the new seawall are in progress.

The area bounded by the following positions are prohibited to all recreation vessels and is restricted to authorised vessels only:

32° 02'.41 S 115° 44'.44 E

32° 02'.34 S 115° 44'.41 E

32° 02'.38 S 115° 44'.08 E

32° 02'.71 S 115° 43'.83 E

32° 02'.81 S 115° 43'.87 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 112 - Aus 113 – AX 63112 - AU5XX113**976(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Esperance - Light beacon destroyed**

Department for Planning and Infrastructure WA (AA423375, AA423376)

No 2 port lateral light beacon (33° 51'.98 S 121° 54'.45 E) has been destroyed; a special light buoy, *Fl. Y.2s*, exists in situ.

Chart temporarily affected - Aus 119 - AU5119P1

1030(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Fremantle - Dredging operations

Date - Until 15 December 2009

Fremantle Ports Notice 9(T)/2009 (AA424524)

The dredge *Ballina* and support vessels are conducting dredging operations in the area bounded by the following positions:

32° 09'.83 S 115° 45'.81 E
 32° 09'.83 S 115° 46'.02 E
 32° 09'.95 S 115° 46'.02 E
 32° 09'.95 S 115° 45'.81 E.

All vessels will display appropriate lights.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 114 - Aus 117 - AX 70117 - AU5111X4**1079(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Broome - Electronic navigation aid trial**

Date - Until 30 June 2010

Broome Port Authority Notice 16/2009 (AA427722, AA427723, AA427543, AA427544)

A trial of Synthetic and Virtual Aids to Navigation (AtoN) is currently being conducted within the Port of Broome. Nine AtoN have been formulated and are being transmitted by the Port of Broome AIS Base Station in accordance with the table below. Full details of the trial and requests for feedback are contained in Port of Broome local marine notice 16/2009. This local marine notice is on the Port of Broome website www.broomeport.com.

Broome Port Authority AIS Base Station located in position 18° 00'.16 S 122° 12'.55 E.

<i>MMSI</i>	<i>Type</i>	<i>Message</i>	<i>Position (WGS84 datum)</i>	<i>Remarks</i>
995031014	Synthetic	Escape Rocks buoy	17° 59'.70 S 122° 09'.51 E	Established over existing Escape Rocks buoy, but buoy is not fitted with Message 6 capability.
995036001	Virtual	Nab Rock marker	17° 59'.42 S 122° 10'.58 E	Established on dangerous contour seaward of Nab Rock.
995036002	Virtual	130 / 210 marker	18° 01'.22 S 122° 12'.48 E	Established in Roebuck Deep to indicate 130 entry heading aim point and 210 departure heading aim point.
995036003	Virtual	Entrance Point marker	18° 00'.68 S 122° 12'.50 E	Established on the fringing reef at Entrance Point.
995036004	Virtual	East Channel 010/190 marker	18° 00'.61 S 122° 13'.02 E	Established as an aim point for entry and departure when using the channel to the east of Channel Rock beacon.
995031015	Synthetic	Channel Rock beacon	18° 00'.59 S 122° 12'.94 E	Established over existing Channel Rock beacon, but beacon is not fitted with Message 6 capability.
995031016	Synthetic	East Cardinal buoy	18° 00'.43 S 122° 12'.92 E	Established over existing East Cardinal buoy, but buoy is not fitted with Message 6 capability.
995031017	Synthetic	Middle Ground buoy	18° 00'.37 S 122° 13'.26 E	Established over existing Middle Ground buoy, but buoy is not fitted with Message 6 capability.
995036005	Virtual	030 entry marker	18° 00'.01 S 122° 13'.22 E	Established as an aim point when transiting the channel west of Channel Rock beacon.

Chart temporarily affected - Aus 50 - Aus 51 - Aus 324 - AU418122

1080(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Port Hedland - Depth information

Former Notice - 104(T)/2009 is cancelled

Port Hedland Port Authority Notices 5/2009, 7/2009 (AA427575, AA427579)

Available depths as at 15 June 2009:

<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	17.2
BHP Billiton Finucane Island berth C	17.9
BHP Billiton Finucane Island berth D	18.3
Anderson Point berth 1	19.1
* Anderson Point berth 2	19.6

* Indicates revised entry.

Chart temporarily affected - Aus 52 - Aus 54 - AU5XXX52**1081(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Dredging operations**

Dampier Port Authority Notice 25/2009 (AA428191)

The dredge *Queen of the Netherlands* and support vessels are conducting dredging operations in the area bounded by the following positions (WGS84 datum):

20° 32'.4 S 116° 42'.7 E
 20° 32'.4 S 116° 42'.9 E
 20° 33'.8 S 116° 43'.2 E
 20° 36'.3 S 116° 45'.5 E
 20° 36'.5 S 116° 45'.3 E
 20° 36'.3 S 116° 44'.8 E
 20° 33'.3 S 116° 42'.5 E.

All vessels involved in the operations will monitor VHF Ch 11 and Ch 16.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 57 - Aus 58 - Aus 59 - AU5XXX58**1197(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Rock dumping**

Date - Until 31 December 2009

Dampier Port Authority Notice 26/2009 (AA431519)

The side stone dumping vessel *Popei* and fall pipe vessel *LA Boudeuse* will cover the Pluto pipeline with rock between 20° 36'.25 S 116° 45'.40 E and 20° 23'.76 S 116° 45'.10 E.

Vessels will monitor VHF Ch 11 and Ch 16.

Chart temporarily affected – Aus 57 – Aus 58 – Aus 59 - AU5XXX58**1199(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Point Cloates to Steep Point - Seismic survey**

Date - Until 21 December 2009

Searcher Seismic Pty Ltd (AA430663)

MV *Aquila Explorer*, with a 8000 metre towed array, will be conducting a survey in the area bounded by 22° 30'.0 S to 26° 30'.0 S and 110° 30'.0 E to 113° 20'.0 E (WGS84 datum).

Chart temporarily affected – Aus 329 – Aus 330 – Aus 416 – Aus 4708 (INT 708) – AX 4708F - AU130090

1247(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Drilling operations

Date - Until 31 December 2009

Dampier Port Authority Notice 29/2009 (AA434980)

The jack-up rig *Ocean Driller*, MT *Force* and support vessel *Kealani* will be conducting drilling operations in an area bounded by the following approximate positions:

20° 36'.76 S 116° 44'.92 E
 20° 36'.46 S 116° 44'.66 E
 20° 36'.34 S 116° 45'.11 E
 20° 36'.67 S 116° 45'.26 E.

The vessels will monitor VHF Ch 11.

Mariners are advised to navigate with caution in the area. A 50m exclusion zone exists around the jack-up rig.

Chart temporarily affected - Aus 57 - Aus 58 - Aus 59 - AU5XXX58**1248(P)/2009 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Light beacons to be established**

Former Notice - 1198(P)/2009 is cancelled

Date - Until 2 November 2009

Dampier Port Authority Notice 28/2009 (AA433535, AA435183)

Light beacons will be established in the following positions:

HP5 20° 32'.91 S 116° 42'.65 E
 HP7 20° 33'.49 S 116° 42'.78 E
 HPR1 20° 33'.23 S 116° 42'.56 E
 HP21 20° 36'.40 S 116° 45'.30 E
 HP22 20° 36'.52 S 116° 45'.41 E

The light beacons will be temporarily lit by *Fl.5s* lights.

Chart which will be affected - Aus 57 - Aus 58 - Aus 59 - AU5XXX58**1292(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Scott Reef - Scientific instrument**

Former Notice - 103(T)/2009 is cancelled

Date - Until 28 February 2010

MetOcean Engineers (AA435817)

A subsurface scientific instrument exists in position 14° 11'.66 S 121° 53'.00 E.

Chart temporarily affected - Aus 43 - Aus 322 - AX 0322F - AU315121**1293(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Rankin Bank to Dampier - Scientific instruments**

Former Notice - 1029(T)/2009 is cancelled

Date - Until 28 February 2010

MetOcean Engineers (AA436305)

Scientific instruments exist as follows:

Position (WGS84 datum)	Remarks
20° 01'.99 S 115° 25'.37 E	lit buoy, <i>Fl(5)Y.20s</i>
20° 02'.06 S 115° 25'.24 E	5 poly-floats
20° 14'.17 S 116° 19'.07 E	lit buoy, <i>Fl(5)Y.20s</i>
20° 14'.30 S 116° 19'.02 E	5 poly-floats
20° 18'.42 S 116° 33'.00 E	lit buoy, <i>Fl(5)Y.20s</i>
20° 18'.55 S 116° 32'.98 E	5 poly-floats
20° 22'.31 S 116° 46'.57 E	lit buoy, <i>Fl(5)Y.20s</i>
20° 22'.35 S 116° 46'.47 E	5 poly-floats
20° 33'.90 S 116° 44'.03 E	5 poly-floats
20° 33'.91 S 116° 44'.06 E	lit buoy, <i>Fl(5)Y.20s</i>

Chart temporarily affected - Aus 57 - Aus 58 - Aus 59 - Aus 327 - Aus 328 - Aus 741 - Aus 742 - AU421115 - AU421116 - AU5XXX58

1296(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Exmouth Plateau - Obstruction*Date* - Until 31 October 2010

HESS Exploration Australia (AA435937)

A suspended wellhead, least depth *1059m*, exists in position 20° 03'.86 S 113° 35'.99 E (WGS84 datum).**Chart temporarily affected - Aus 329 - Aus 415 - Aus 416 – AX 0415F – AX 4708F - Aus 4708 (INT 708) - AU130090****1329(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - North Rankin - Scientific instruments***Former Notice* - 1256(T)/2008 is cancelled*Date* - Until 31 May 2010

MetOcean Engineers (AA438335)

Special light buoys, *Fl(5)Y.20s*, exist in position 18° 45'.00 S 117° 02'.30 E and 19° 31'.43 S 117° 03'.21 E (WGS84 datum).**Chart temporarily affected - Aus 327 - Aus 415 - Aus 741 – Aus 4722 (INT 722) - AX 0415F – AX 4722F - AU130090****1330(P)/2009 AUSTRALIA - WESTERN AUSTRALIA - Rankin Bank to Dampier - Production wells; platform; pipeline established***Former Notice* - 734(P)/2009 is cancelled*Date* - Until 30 April 2010

Woodside Energy (AA439328 - AA439330, AA439357, AA439358)

A pipeline has been laid between:

<i>Position (WGS84 datum)</i>	<i>Remarks</i>
19° 54'.837 S 115° 07'.900 E	<i>Production Well</i>
19° 55'.829 S 115° 08'.586 E	
19° 56'.232 S 115° 09'.218 E	
19° 58'.031 S 115° 11'.243 E	
19° 59'.709 S 115° 21'.068 E	
19° 59'.718 S 115° 22'.053 E	
19° 59'.776 S 115° 22'.093 E	<i>Platform</i>
19° 59'.656 S 115° 22'.129 E	
19° 58'.642 S 115° 25'.433 E	
19° 59'.146 S 115° 26'.492 E	
20° 00'.513 S 115° 26'.978 E	
20° 02'.250 S 115° 28'.531 E	
20° 02'.724 S 115° 29'.477 E	
20° 02'.937 S 115° 31'.633 E	
20° 08'.176 S 115° 55'.137 E	
20° 10'.274 S 115° 59'.628 E	
20° 10'.278 S 116° 04'.570 E	
20° 12'.601 S 116° 23'.708 E	
20° 17'.185 S 116° 32'.153 E	
20° 18'.962 S 116° 40'.113 E	
20° 24'.479 S 116° 45'.944 E	
20° 26'.767 S 116° 46'.547 E	
20° 30'.541 S 116° 46'.337 E	
20° 31'.876 S 116° 45'.735 E	
20° 33'.078 S 116° 45'.640 E	
20° 35'.122 S 116° 44'.671 E	
20° 35'.481 S 116° 44'.727 E	
20° 36'.296 S 116° 45'.475 E	

A 0.5M exclusion zone exists on each side of the pipeline from the shore crossing to position 20° 24'.48 S 116° 45'.94 E.

Chart which will be affected - Aus 57 - Aus 58 - Aus 59 - Aus 327 - Aus 328 - Aus 415 - Aus 416 - Aus 741 - Aus 742 – AX 0415F - AU320115 - AU421115 - AU421116

1332(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Exmouth Plateau - Seismic survey

Date - Until 18 December 2009

RPS Australia and South East Asia (AA438337, AA438338)

A SSV with a 6000m towed array will be conducting a survey in the area bounded by the following positions:

18° 50'.21 S 113° 20'.56 E
 18° 50'.57 S 113° 39'.88 E
 19° 09'.52 S 113° 39'.79 E
 19° 16'.00 S 113° 29'.49 E
 19° 09'.15 S 113° 20'.43 E.

Chart temporarily affected - Aus 415 - Aus 4708 (INT 708) – AX 0415F – AX 4708F - AU130090**1333(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Thevenard Island to Ashburton Road - Scientific instruments**

Former Notice - 1250(T)/2009 is cancelled

Date - Until 30 April 2010

MetOcean Engineers (AA434045)

Scientific instruments exist as follows:

<i>Position (WGS84 datum)</i>	<i>Remarks</i>
21° 21'.86 S 114° 51'.20 E	5 poly floats
21° 22'.08 S 114° 50'.91 E	lit buoy, <i>Fl(5)Y.20s</i>
21° 22'.08 S 114° 51'.00 E	5 poly floats
21° 29'.15 S 115° 00'.86 E	lit buoy, <i>Fl(5)Y.20s</i>
21° 29'.21 S 115° 00'.94 E	5 poly floats
21° 30'.12 S 115° 02'.92 E	lit buoy, <i>Fl(5)Y.20s</i>
21° 31'.40 S 114° 54'.90 E	lit buoy, <i>Fl(5)Y.20s</i>
21° 36'.30 S 115° 04'.94 E	lit buoy, <i>Fl(5)Y.20s</i>
21° 36'.30 S 115° 04'.75 E	5 poly floats
21° 39'.32 S 115° 00'.77 E	lit buoy, <i>Fl(5)Y.20s</i>

Chart temporarily affected - Aus 64 - Aus 328 - Aus 743 - Aus 744 - AU422114 - AU422115**1335(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - North West Cape - Scientific instruments northwestwards**

Former Notice - 108(T)/2009 is cancelled

MetOcean Engineers (AA438335)

Scientific instruments exist as follows:

<i>Position (WGS84 datum)</i>	<i>Remarks</i>
21° 30'.80 S 114° 00'.85 E	special buoy with 5 white poly-floats
21° 30'.93 S 114° 00'.91 E	lit buoy, <i>Fl(5)Y.20s</i>

Chart temporarily affected - Aus 328 - Aus 329 - Aus 415 - Aus 416 - Aus 744 - Aus 4708 (INT 708) – AX 0415F – AX 4708F - AU130090 - AU422114**1337(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Alkimos Reef - Scientific instrument**

Date - Until 30 April 2010

Cardo Lawson Treloar (AA439271)

A special light buoy, *Fl(5)Y.20s*, exists in position 31° 37'.71 S 115° 38'.08 E.**Chart temporarily affected - Aus 334 - Aus 754 – AX 0334E – AX 0754E – AX 66002 - AU432115**

1340(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Eclipse Island to Esperance Canyon - Seismic survey

Date - Until 8 January 2010

Enovation Resources (AA439457, AA439458)

MV *Aquila Explorer* with an 8000m towed array and support vessel *Empress*, will be conducting a survey in the area bounded by the following positions (WGS84 datum):

35° 40'.90 S 118° 26'.62 E
 34° 54'.00 S 121° 36'.13 E
 34° 34'.58 S 121° 35'.75 E
 34° 19'.62 S 121° 00'.33 E
 34° 28'.10 S 119° 39'.78 E
 34° 06'.63 S 118° 09'.42 E
 35° 16'.27 S 118° 00'.00 E.

Chart temporarily affected - Aus 118 - Aus 336 - Aus 337 - Aus 752 - Aus 759 - Aus 762 - Aus 4709 (INT 709) - Aus 4726 (INT 726) - Aus 4727 (INT 727) - AX 0118E - AU160090 - AU160120 - AU335120 - AU335121 - AU336119 - AU336120 - AU436118

1392(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Muiron Islands - Light buoy established northwestwards

BHP Billiton Petroleum Pty Ltd (AA441619)

A special cylindrical light buoy, *Fl.Y.5s*, exists in position 21° 31'.2 S 114° 09'.6 E (WGS84 datum).

Chart temporarily affected - Aus 328 - Aus 329 - Aus 744 - AU422114

1393(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Fremantle - Success Channel to Parmelia Channel - Nav aids altered

Date - Until 31 January 2010

Fremantle Ports Notice 12(T)/2009 (AA441825)

Nav aids have been altered as follows;

	<i>Position</i>	<i>Remarks</i>
No1	32° 03'.73 S 115° 41'.20 E	VQ.G
No2	32° 04'.26 S 115° 41'.31 E	Iso.G.2s
No3	32° 04'.64 S 115° 41'.40 E	Iso.G.2s
No4	32° 05'.01 S 115° 41'.49 E	Iso.G.2s
No5	32° 05'.40 S 115° 41'.58 E	Iso.G.2s
No6	32° 05'.76 S 115° 41'.66 E	Iso.G.2s
No7	32° 06'.12 S 115° 41'.73 E	VQ.G
No8	32° 06'.74 S 115° 41'.87 E	VQ.G
No9	32° 07'.12 S 115° 41'.97 E	Iso.G.2s
No10	32° 07'.46 S 115° 42'.04 E	Iso.G.2s
No11	32° 07'.79 S 115° 42'.12 E	Iso.G.2s
No12	32° 08'.16 S 115° 42'.19 E	VQ.G
A	32° 03'.71 S 115° 41'.30 E	VQ.R
B	32° 04'.25 S 115° 41'.42 E	Iso.R.2s
C	32° 04'.62 S 115° 41'.51 E	Iso.R.2s
D	32° 04'.99 S 115° 41'.59 E	Iso.R.2s
E	32° 05'.38 S 115° 41'.68 E	Iso.R.2s
F	32° 05'.74 S 115° 41'.76 E	Iso.R.2s
G	32° 06'.10 S 115° 41'.86 E	VQ.R
H	32° 06'.73 S 115° 42'.00 E	VQ.R
J	32° 07'.10 S 115° 42'.06 E	Iso.R.2s
K	32° 07'.42 S 115° 42'.14 E	Iso.R.2s
L	32° 07'.77 S 115° 42'.22 E	Iso.R.2s
M	32° 08'.14 S 115° 42'.32 E	VQ.R

Chart temporarily affected - Aus 112 - Aus 113 - Aus 114 - Aus 117 - AX 63112 - AX 70117 - AU5111X4 - AU5XX113

1458(T)/2009 INDIAN OCEAN - Sumatera - Scientific instruments westwards*Former Notice* - 568(T)/2009 is cancelled

JAMSTEC (AA443477)

Scientific instruments, Triton buoys, exist as follows:

<i>Number</i>	<i>Position</i>
17	4° 56'.91 S 94° 58'.35 E
18	1° 39'.59 S 89° 59'.69 E
19	7° 59'.97 S 95° 02'.60 E

Chart temporarily affected - Aus 4070 (INT 70) - Aus 4071 (INT 71)**1459(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Browse Island - Scientific instruments***Date* - Until 30 November 2010

MetOcean Engineers (AA444797)

Scientific instruments exist as follows:

<i>Position</i>	<i>Remarks</i>
13° 44'.69 S 123° 20'.98 E	lit buoy, <i>FI(5)Y.20s</i>
13° 44'.41 S 123° 22'.30 E	lit buoy, <i>FI(5)Y.20s</i>
13° 44'.59 S 123° 21'.40 E	subsurface

Chart temporarily affected - Aus 319 - AU314123 – AX 0319F**1460(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Browse Island - Scientific instrument***Former Notice* - 99(T)/2009 is cancelled*Date* - Until 30 November 2010

MetOcean Engineers (AA444797)

A subsurface scientific instrument exists in position 13° 52'.49 S 123° 13'.78 E.

Chart temporarily affected - Aus 319 - Aus 320 - AU314123 – AX 0319F

1462(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Scott Reef to James Price Point - Scientific instruments

Date - Until 31 December 2010

Fugro Survey Pty Ltd (AA445251 - AA445256)

Scientific instruments exist as follows:

<i>Position</i>	<i>Remarks</i>
14° 56'.49 S 121° 45'.08 E	subsurface
14° 56'.64 S 121° 44'.94 E	subsurface
14° 59'.99 S 121° 46'.90 E	subsurface
15° 00'.14 S 121° 46'.78 E	subsurface
15° 03'.22 S 121° 47'.78 E	subsurface
15° 03'.43 S 121° 47'.52 E	lit buoy
15° 03'.68 S 121° 47'.68 E	subsurface
15° 06'.01 S 121° 45'.45 E	subsurface
15° 06'.07 S 121° 45'.44 E	lit buoy
15° 16'.32 S 121° 39'.64 E	lit buoy
15° 25'.75 S 121° 34'.57 E	lit buoy
15° 37'.38 S 121° 33'.86 E	lit buoy
15° 54'.51 S 121° 32'.71 E	lit buoy
16° 02'.60 S 121° 36'.95 E	lit buoy
16° 13'.24 S 121° 38'.81 E	lit buoy
16° 21'.49 S 121° 40'.77 E	lit buoy
16° 21'.55 S 121° 40'.59 E	lit buoy
16° 40'.16 S 121° 44'.88 E	lit buoy
16° 47'.64 S 121° 44'.63 E	lit buoy
17° 08'.58 S 121° 37'.58 E	lit buoy
17° 23'.81 S 121° 48'.39 E	lit buoy
17° 29'.40 S 122° 04'.66 E	lit buoy
17° 29'.45 S 121° 55'.32 E	lit buoy
17° 30'.26 S 122° 05'.84 E	lit buoy
17° 31'.03 S 121° 51'.55 E	lit buoy
17° 31'.19 S 122° 07'.52 E	lit buoy
17° 31'.20 S 122° 08'.53 E	lit buoy
17° 31'.26 S 122° 07'.45 E	lit buoy
17° 31'.26 S 122° 07'.59 E	lit buoy
17° 31'.75 S 122° 07'.51 E	lit buoy

Chart temporarily affected - Aus 322 - Aus 323 - Aus 324 - Aus 415 - AU315121 - AU318121 - AX 0322F - AX 0415F**1463(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Mermaid Sound - AIS and racon non operational**

Dampier Port Authority Notice 36/2009 (AA445621)

The light buoy, Q(4)Y.6s (20° 25'.45 S 116° 42'.95 E (WGS84 datum)), AIS and racon are non operational.

Chart temporarily affected - Aus 57 - Aus 58 - Aus 741 - AU5XXX58**1464(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Bessieres Island - FPSO off station northwestwards**

BHP Billiton Petroleum Pty Ltd (AA445247)

The FPSO Griffin Venture (21° 13'.25 S 114° 38'.90 E (WGS84 datum)) is off station.

Chart temporarily affected - Aus 328 - Aus 415 - Aus 416 - Aus 744 - Aus 4708 (INT 708) - AU130090 - AU422114 - AX 0415F - AX 4708F

SOUTH AUSTRALIA

173(T)/2008 AUSTRALIA - SOUTH AUSTRALIA - Wallaroo - Light beacon destroyed
Department for Transport, Energy and Infrastructure SA Notice 2/2008 (AA310757)

No 1 light beacon K1974.4 (33° 54'.4 S 137° 33'.8 E) has been destroyed.

Chart temporarily affected - Aus 777

265(T)/2008 AUSTRALIA - SOUTH AUSTRALIA - Port Augusta - Bluff Reach - Light beacon destroyed
Former Notice - 172(T)/2008 is cancelled
Department for Transport, Energy and Infrastructure SA Notice 3/2008 (AA310768)

No 9 light beacon K1952 (32° 39'.0 S 137° 46'.2 E) has been destroyed; light buoy Q(9) 15s has been established in situ.

Chart temporarily affected - Aus 344 - Aus 778

268(T)/2008 AUSTRALIA - SOUTH AUSTRALIA - Wirrina Cove - Shoaling
Department for Transport, Energy and Infrastructure SA Notice 9/2008 (AA315237, AA315236)

Shoaling, least depth 1.6 m, exists in position 35° 30'.04 S 138° 14'.42 E (WGS84 datum).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 125

415(T)/2008 AUSTRALIA - SOUTH AUSTRALIA - Port Augusta - Two Hummock Point - Light beacon altered
Department for Transport, Energy and Infrastructure Notice 19/2008 (AA324384)

No 4 light beacon (32° 44'.88 S 137° 48'.96 E (WGS84 datum)) has been altered to Q(3)10s.

Chart temporarily affected - Aus 344 - Aus 778

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

830(T)/2008 AUSTRALIA - SOUTH AUSTRALIA - Barker Inlet - Shoaling
Former Notice - 484(T)/2006 is cancelled
Department for Transport, Energy and Infrastructure SA (AA192234)

Shoaling exists in position 34° 44'.309 S 138° 28'.689 E (WGS84 datum).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 130 - Aus 780 - Aus 781

1161(T)/2008 AUSTRALIA - SOUTH AUSTRALIA - Glenelg - Shoaling

Former Notice - 989(T)/2008 is cancelled

Department for Transport, Energy and Infrastructure SA Notice 51/2008 (AA367158, AA367331)

Shoaling exists in the approach channel to Glenelg Harbor.

Light buoys have been established to mark the channel into the harbor:

<i>Position (WGS84 datum)</i>		<i>Remarks</i>
34° 58'.438 S	138° 30'.496 E	<i>F.G</i>
34° 58'.426 S	138° 30'.495 E	<i>F.G</i>
34° 58'.406 S	138° 30'.456 E	<i>Fl.G.3s</i>
34° 58'.375 S	138° 30'.467 E	<i>Fl.R.5s</i>
34° 58'.396 S	138° 30'.511 E	<i>Fl.R.3s</i>
34° 58'.432 S	138° 30'.536 E	<i>F.R</i>

Light K2086.2 (34° 58'.526 S 138° 30'.618 E) is unlit.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 125**1208(T)/2008 AUSTRALIA - SOUTH AUSTRALIA - Neptune Islands - Scientific instrument**

Date - Until 30 April 2009

Department for Transport, Energy and Infrastructure SA Notice 57/2008 (AA368452, AA369108)

A scientific instrument marked by a special buoy exists in position 35° 16'.21 S 135° 41'.10 E (WGS84 datum).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 343 – AX 0343E**176(T)/2009 AUSTRALIA - SOUTH AUSTRALIA - Wallaroo - Depth information**

Former Notice - 1172(T)/2006 is cancelled

Department for Transport, Energy and Infrastructure SA Notice 38/2006 (AA213542)

Available depths as at 12 September 2006:

	<i>Metres (LAT)</i>
* No 1 South Berth	8.7
* No 2 North Berth	8.7
* Indicates new or revised entry.	

Chart temporarily affected – Aus 777**335(T)/2009 AUSTRALIA - SOUTH AUSTRALIA - Port Stanvac - Scientific instrument**

Date - Until 31 March 2010

Department for Transport, Energy and Infrastructure SA Notice 13/2009 (AA390604)

A scientific instrument marked by a special light buoy, *Fl.Y.3s*, exists in position 35° 05'.54 S 138° 27'.95 E (WGS84 datum).

Chart temporarily affected - Aus 125 - Aus 780 - Aus 781**393(T)/2009 AUSTRALIA - SOUTH AUSTRALIA - Port Adelaide - Wreck**

Department for Transport, Energy and Infrastructure SA Notice 17/2009 (AA396376, AA396523)

A wreck marked by an isolated danger light buoy, *Fl(2)6s*, exists in position 34° 47'.75 S 138° 30'.80 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 130 - Aus 137

455(T)/2009 AUSTRALIA - SOUTH AUSTRALIA - Point Lowly - Light unreliable
Flinders Ports (AA398661)

The light K1948 (32° 59'.98 S 137° 47.13 E (WGS84 datum)) is unreliable.

Chart temporarily affected - Aus 136 - Aus 444 - Aus 778

456(T)/2009 AUSTRALIA - SOUTH AUSTRALIA - Largs Bay - Light buoy off station
Department for Environment and Heritage (AA397712)

The special light buoy, *Fl. Y.5s* (34° 49'.29 S 138° 25'.06 E (WGS84 datum)), is off station.

Chart temporarily affected - Aus 130 - Aus 138 - Aus 780 - Aus 781 - AU435138 - AU5137X8

458(T)/2009 AUSTRALIA - SOUTH AUSTRALIA - Glenelg - Restricted area; light buoys

Former Notice - 490(T)/2002 is cancelled

Department for Transport, Energy and Infrastructure SA (AA398751)

A restricted area, marked by light buoys, exists bounded by the following:

<i>Position (WGS84 datum)</i>	<i>Remarks</i>
34° 58'.02 S 138° 30'.51 E	
34° 58'.02 S 138° 30'.19 E	west cardinal light buoy, Q(9) 15s
34° 58'.23 S 138° 30'.29 E	west cardinal light buoy, Q(9) 15s
34° 58'.46 S 138° 30'.56 E	

Chart temporarily affected - Aus 125 - Aus 781

520(T)/2009 AUSTRALIA - SOUTH AUSTRALIA - Murray River - Dredging operations; exclusion zone

Date - Until 31 October 2009

Department for Transport, Energy and Infrastructure SA Notice 20/2009 (AA399745)

Dredging operations are in progress in the entrance to Murray River.

An exclusion zone, marked by special buoys, exists in position 35° 33'.57 S 138° 52'.67 E. Vessels are not permitted to enter this buoyed zone.

The dredge displays appropriate lights and shapes.

Chart temporarily affected - Aus 347

572(T)/2009 AUSTRALIA - SOUTH AUSTRALIA - Port Stanvac - Pipeline

Department for Transport, Energy and Infrastructure SA Notice 26/2009 (AA402614)

A pipeline is being laid in the area bounded by (WGS84 datum):

35° 07'.49 S 138° 28'.13 E
35° 07'.53 S 138° 27'.71 E
35° 07'.63 S 138° 27'.73 E
35° 07'.60 S 138° 28'.16 E

Vessels associated with the works will display appropriate lights and shapes.

All vessels are required to keep a distance of at least 100m from any vessels working within the above area.

Chart temporarily affected - Aus 125 - Aus 780 - Aus 781

633(T)/2009 AUSTRALIA - SOUTH AUSTRALIA - Port Adelaide - Depth information

Department for Transport, Energy and Infrastructure SA Notice 27/2009 (AA406196)

Available depths as at 15 May 2009:

<i>Metres</i>	
Inner Harbor Berth M	10.3
Outer Harbor Berth 7	13.5
Outer Harbor Berth 8	15.5

Chart temporarily affected - Aus 137 - AU5137X8

921(T)/2009 AUSTRALIA - SOUTH AUSTRALIA - Port Willunga - Light buoy off station
Department of Environment and Heritage SA (AA420053)

The light buoy, *Fl.5s* (35° 15'.13 S 138° 27'.58 E (WGS84 datum)), is off station.

Chart temporarily affected – Aus 780

1082(T)/2009 AUSTRALIA - SOUTH AUSTRALIA - Whidbey Isles to Kangaroo Island - Scientific instruments

Former Notice - 334(T)/2009 is cancelled

Date - Until 30 April 2010

South Australian Research and Development Institute (AA390585, AA390586, AA427162)

Subsurface scientific instruments exist as follows:

<i>Position (WGS84 datum)</i>	<i>Removed</i>
34° 55'.68 S 135° 00'.60 E	Apr - Sep 09, Jan 10
35° 14'.21 S 136° 41'.68 E	Oct 09
35° 16'.14 S 135° 41'.22 E	Apr - Sep 09
35° 30'.00 S 136° 36'.00 E	Apr 09 - Jan 10
36° 30'.96 S 136° 14'.58 E	Apr - Jun 09, Oct - Nov 09
36° 31'.20 S 136° 51'.30 E	

Chart temporarily affected - Aus 342 - Aus 343 - Aus 345 - Aus 346 - Aus 444 - AX 0343E - AU336135

1201(T)/2009 AUSTRALIA - SOUTH AUSTRALIA - Port Stanvac - Offshore works

Former Notice - 721(T)/2008 is cancelled

Department for Transport, Energy and Infrastructure Notice 43/2009 (AA431916)

Installation of infrastructure for a desalination plant are in progress in an area bounded by the following positions (WGS84 datum):

35° 06'.02 S 138° 28'.59 E
35° 05'.64 S 138° 27'.65 E
35° 05'.06 S 138° 27'.99 E
35° 05'.48 S 138° 29'.04 E.

The boundary is marked by special light buoys.

All vessels associated with the works will display appropriate lights and shapes.

Unauthorised vessels are prohibited from entering the area.

Chart temporarily affected – Aus 125 – Aus 780 – Aus 781

1251(T)/2009 AUSTRALIA - SOUTH AUSTRALIA - Port Bonython - Light buoy off station

Department for Transport, Energy and Infrastructure SA Notice 50/2009 (AA434954)

No7 light buoy (33° 02'.29 S 137° 45'.93 E) is currently in position 33° 01'.98 S 137° 46'.01 E; with a temporary light, Q.G.

Chart temporarily affected - Aus 136 - Aus 778

1396(T)/2009 AUSTRALIA - SOUTH AUSTRALIA - North Neptunes - Scientific instruments

Date - Until 31 December 2010

South Australian Research and Development Institute (AA442608)

Subsurface scientific instruments exist in positions (WGS84 datum):

35° 13'.73 S 136° 04'.40 E
35° 13'.79 S 136° 04'.19 E
35° 13'.90 S 136° 04'.35 E

Chart temporarily affected - Aus 343 - Aus 345 – AX 0343E

VICTORIA

458(T)/2007 AUSTRALIA - VICTORIA - Ninety Mile Beach - Obstructions
Victorian Notice 51(T)/2007 (A242065)

Suspended well heads, least depth unknown, exist in the vicinity of 38° 37'.65 S 146° 53'.75 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 357A

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

797(T)/2007 AUSTRALIA - VICTORIA - Port Phillip - South Channel - Obstruction
Victorian Notice 99(T)/2007 (AA280895)

An obstruction marked by an isolated danger light buoy, *Fl.(2).8s*, exists in position 38° 19'.08 S 144° 49'.61 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 143 – Aus 158

799(T)/2007 AUSTRALIA - VICTORIA - Lakes Entrance - Scientific instrument
Victorian Notice 102(T)/2007 (AA281315)

A scientific instrument, *Fl(5)Y* exists in position 37° 54'.62 S 147° 58'.82 (WGS84).

Chart temporarily affected – Aus 357A

897(T)/2007 AUSTRALIA - VICTORIA – Port Phillip - Port Melbourne - Webb Dock - Shoaling
Victorian Notice 116(T)/2007 (AA287501)

Shoaling, least depth *6.1m*, exists at the northern end of the Webb Dock 7m maintained depth area in the vicinity of 37° 50'.43 S 144° 54'.29

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 154

997(T)/2007 AUSTRALIA - VICTORIA - Port Phillip - Station Pier - Shoaling

Victorian Notice 124(T)/2007 (AA292404)

Shoaling, least depth *8.5m*, exists east of a line between:

37° 50'.61 S 144° 55'.95 E

37° 50'.74 S 144° 55'.95 E

37° 50'.75 S 144° 55'.98 E

Shoaling, least depth *9.5m*, exists east of a line between:

37° 50'.74 S 144° 55'.95 E

37° 50'.94 S 144° 55'.88 E

37° 50'.95 S 144° 55'.91 E

Shoaling, least depth *10.0m*, exists east of a line between:

37° 50'.94 S 144° 55'.88 E

37° 50'.99 S 144° 55'.83 E

37° 51'.14 S 144° 55'.79 E

Shoaling, least depth *9.8m*, exists west of a line between:

37° 51'.10 S 144° 55'.63 E

37° 51'.06 S 144° 55'.63 E

37° 50'.99 S 144° 55'.58 E

37° 50'.96 S 144° 55'.53 E

37° 50'.90 S 144° 55'.51 E

37° 50'.91 S 144° 55'.49 E

Shoaling, least depth *10.0m*, exists west of a line between:

37° 50'.90 S 144° 55'.51 E

37° 50'.85 S 144° 55'.51 E

37° 50'.79 S 144° 55'.55 E

37° 50'.73 S 144° 55'.56 E

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 154**223(T)/2008 AUSTRALIA - VICTORIA - Port Phillip - Port Melbourne - Princes Pier - Harbour works**

Date - Until 1 October 2009

Victorian Notice 12(T)/2008 (AA313545)

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 143 - Aus 154 - Aus 155**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**893(T)/2008 AUSTRALIA - VICTORIA - Port Phillip - Port Melbourne - River Yarra - Light beacon withdrawn**

Victorian Notice 98/2008 (AA354281)

No 44 light beacon (37° 49'.36 S 144° 54'.26 E) has been withdrawn; a port lateral light buoy, *Fl.R.2s*, exists in situ.**Chart temporarily affected - Aus 154 - AU5XX154**

1213(T)/2008 AUSTRALIA - VICTORIA - Corner Inlet - Shoaling

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 357A – Aus 802 - AU439146

115(T)/2009 AUSTRALIA - VICTORIA - Port Phillip - Clifton Springs - Harbour works

Date - Until 31 March 2009

Victorian Notice 144(T)/2008 (AA378665)

Works associated with the construction of two groynes in positions 38° 08'.92 S 144° 34'.01 E and 38° 08'.77 S 144° 34'.16 E (WGS84 datum) are in progress.

All hazards to navigation will display the appropriate lights.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 157 - AU439144

230(T)/2009 AUSTRALIA - VICTORIA - Port Phillip - Port Melbourne - Depth information

Former Notice - 1088(T)/2007 is cancelled

Port of Melbourne Corporation (AA384611)

Available depths as at 6 February 2009:

<i>Berth</i>	<i>Metres</i>
Station Pier Inner West	8.0

Chart temporarily affected - Aus 154 - AU5XX154

465(T)/2009 AUSTRALIA - VICTORIA - Port Phillip - Geelong - Depth information

Former Notice - 952(T)/2006 is cancelled

Victorian Notice 31(T)/2005, 104(T)/2005 (AA131863, AA203894)

Available depths as at 1 March 2005:

<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 7.6m shoal patch exists 125 metres southwest of the Point Richards Channel No 14 beacon (38° 07'.30 S 144° 33'.12 E).

Chart temporarily affected - Aus 153 - Aus 157 - AU5XX153

582(T)/2009 AUSTRALIA - VICTORIA - Port Phillip - Geelong - Corio Quay - Harbour works

Former Notice - 466(T)/2009 is cancelled

Date - Until 20 December 2009

Victorian Notice 61(T)/2009 (AA402622)

Works associated with the construction of the new Corio Quay No 4 berth facility are in progress.

The barge *Jub* and support vessels *Taurus* and *Taree* are conducting piling operations.

All hazards to navigation will display Q. Y lights.

All vessels are required to keep a distance of at least 200m from the area.

Chart temporarily affected – Aus 153 – Aus 157 - AU5XX153

741(T)/2009 AUSTRALIA - VICTORIA - Lakes Entrance - Cunninghame Arm - Harbour works*Date - Until 6 September 2009*

Victorian Notice 74/2009 (AA412225)

Harbour works are in progress at the jetty (37° 52'.95 S 147° 58'.90 E).

A barge and associated vessels will be onsite.

During the works berths will be restricted or unavailable.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus182**800(T)/2009 AUSTRALIA - VICTORIA - Port Albert - Shoaling**

Victorian Notice 63(T)/2009 (AA414814)

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 - AU439146**926(T)/2009 AUSTRALIA - VICTORIA - Port Phillip - Port Melbourne - Swanson Dock - Harbour works***Date - Until 30 June 2010*

Victorian Notice 101(T)/2009 (AA419769)

A barge and associated vessels will be conducting harbour works (37° 48'.85 S 144° 54'.81 E).

Vessels manoeuvring in the dock must maintain a minimum clearance of 50m from the work units. Vessels berthing or unberthing may approach to within 20m of the work units.

Further information can be obtained from Melbourne VTS on VHF Ch 12.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected – Aus 154 - AU5XX154**928(T)/2009 AUSTRALIA - VICTORIA - Port Phillip - Rosebud - Harbour works***Former Notices - 738(T)/2009, 852(T)/2009 are cancelled*

Parks Victoria (AA419961)

Works associated with the refurbishment of the jetty (38° 21'.10 S 144° 54'.46 E) are in progress.

A barge and workboat will be on site. All vessels will display appropriate lights and signals.

The light (38° 20'.99 S 144° 54'.44 E) has been repositioned to 38° 21'.19 S 144° 54'.42 E.

Chart temporarily affected – Aus 143 – Aus 158 - AU439144

1036(T)/2009 AUSTRALIA - VICTORIA - Port Phillip - Port Melbourne - River Yarra - Harbour works*Date* - Until 24 May 2010

Victorian Notice 116(T)/2009 (AA424855)

Works are in progress at West Gate Bridge (37° 49'.77 S 144° 53'.89 E) resulting in a reduction in the permissible air draught of transiting vessels.

Restrictions apply from 13 September to 5 October 2009 between 2100 and 0500 and from 5 October 2009 to 23 May 2010 between 0600 and 1400.

Vessels with air draught greater than 47.5m are not permitted to transit.

Vessels with air draught 43.5m to 47.5m are permitted to transit subject to evacuation of all personnel from the gantry or platforms.

Vessels with air draught 39.5m to 43.5m no restrictions apply, however notice is to be provided to construction crew for vessels transiting the West Gate Bridge.

Incoming vessels report to Melbourne VTS on passing breakwater pier and departing vessels report to Melbourne VTS on departing from berths upstream of the West Gate Bridge.

Melbourne VTS will relay the notice to the West Gate Bridge gantry master. Updated information about the operation can be obtained from Melbourne VTS on VHF Ch 12.

Chart temporarily affected - Aus 154 - AU5XX154**1037(T)/2009 AUSTRALIA - VICTORIA - Port Phillip - Port Melbourne - River Yarra - Harbour works***Date* - Until 30 November 2009

Victorian Notice 117(T)/2009 (AA425236)

Works associated with the upgrade to Mobil Bunker Jetty (37° 49'.57 S 144° 53'.98 E) are in progress.

The barge *31 Pile Barge* and support vessel *Warneet* are on site and divers may be operating in the vicinity of the works.

The barge and support vessel can be contacted on 0411 016 795.

Further information can be obtained from Melbourne VTS on VHF Ch 12.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 154 - AU5XX154**1089(T)/2009 AUSTRALIA - VICTORIA - Port Phillip - Williamstown - Harbour works***Date* - Until 30 September 2009

Victorian Notice 121(T)/2009 (AA427815)

Harbour works are in progress at the Royal Yacht Club (37° 51'.54 S 144° 54'.55 E).

A barge and associated vessels are onsite and will display the appropriate lights and shapes.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 154 - Aus 155 - AU438144 - AU5XX154

1252(T)/2009 AUSTRALIA - VICTORIA - Port Phillip - River Yarra - South Wharf - Harbour works

Date - Until 18 December 2009

Victorian Notice 139(T)/2009 (AA435322)

Works associated with the rehabilitation of the wharf face between South Warf 25 (37° 49'.23 S 144° 55'.87 E) and 26 (37° 49'.20 S 144° 55'.61 E) are in progress.

Diving operations are being undertaken from the barge *Easterly*.

From 23 November the jack-up barge *Jub No 2* will conduct pile driving operations for the installation of a floating safety boom.

The barge can be contacted on VHF Ch 12 and mobile 0411 555 925.

Updated information can be obtained from Melbourne VTS on VHF Ch 12.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 154 - AU5XX154

1300(T)/2009 AUSTRALIA - VICTORIA - Anderson Inlet - Shoaling

Victorian Notice 150/2009 (AA436349)

Shoaling exists in the outer entrance channel of the Anderson Inlet entrance bar.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 801 - AU439145

1301(T)/2009 AUSTRALIA - VICTORIA - Barry Beach - Shoaling

Former Notice - 1002(T)/2004 is cancelled

Victorian Notice 149/2009 (AA436347)

Shoaling, with a least depth of 5m, 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 181 - Aus 182 - AU439146

1302(T)/2009 AUSTRALIA - VICTORIA - Port Welshpool - Middle Ground Channel - Beacon destroyed

Gippsland Ports (AA433895 - AA433897)

No2 port lateral beacon (38° 42'.36 S 146° 29'.15 E (WGS84 datum)) has been destroyed; a port lateral cylindrical buoy has been established in situ.

Chart temporarily affected - Aus 181 - AU439146

1303(T)/2009 AUSTRALIA - VICTORIA - Port Albert - Harbour works

Victorian Notice 151/2009 (AA436348)

Demolition and construction works are in progress at the boat harbour jetty (38° 40'.41 S 146° 41'.73 E (WGS84 datum)).

A pile driving barge and support vessel are on site and anchors will be deployed.

Diving operations are also in progress.

Two *Fl. Y.5s* lights have been attached to the jetty structure.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 181 - Aus 182 - AU439146

1344(T)/2009 AUSTRALIA - VICTORIA - Port Melbourne - Port Phillip - Dredging operations

Date - Until 30 April 2011

Victorian Notice 156(T)/2009 (AA439003)

A dredge and barge are conducting dredging operations in the Port of Melbourne at the following locations:

Port Melbourne Channel leading to Station Pier (37° 51'.6 S 144° 55'.7 E) and

Station Pier berths and swing basin (37° 50'.8 S 144° 55'.8 E)

Ann St Pier (37° 51'.6 S 144° 54'.6 E)

Webb Dock (37° 50'.7 S 144° 54'.4 E)

Maribyrnong River (37° 49'.0. S 144° 54'.3 E)

River Yarra berths and approaches (37° 49'.1 S 144° 55'.2 E).

The dredge material will be deposited at the Port of Melbourne spoil ground (38° 00'.5 S 144° 53'.0 E).

Updated information on the daily dredging schedule can be obtained from Melbourne VTS on VHF Ch 12.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 154 - Aus 155 - AU5XX154**1346(T)/2009 AUSTRALIA - VICTORIA - Western Port - Wonthaggi - Scientific instrument**

Date - Until 30 April 2011

Cardno Lawson Treloar (AA439271)

A special light buoy, *Fl(5)Y.20s*, exists in position 38° 36'.16 S 145° 30'.84 E.

Chart temporarily affected - Aus 150 - Aus 801 - AU439145**1401(T)/2009 AUSTRALIA - VICTORIA - Warrnambool - Pipeline southeastwards**

Santos Ltd (AA442130)

Pipelay vessel *Seven Navica* and support vessel *Rockwater 2* are conducting pipe laying activities between the following positions (WGS84 datum):

38° 47'.23 S 142° 41'.88 E

38° 43'.00 S 142° 36'.72 E

38° 40'.81 S 142° 38'.42 E

38° 38'.18 S 142° 41'.15 E.

A 500m safety zone exists around the *Seven Navica*.

Chart temporarily affected - Aus 349**1405(T)/2009 AUSTRALIA - VICTORIA - Port Phillip - Point Richards - Harbour works**

Date - Until 30 December 2009

Victorian Notice 160/2009 (AA441626)

Harbour works associated with the construction of a rock groyne in position 38° 06'.47 S 144° 37'.90 E are in progress.

All hazards to navigation will be marked by flashing yellow lights.

Dredging operations are in progress for an access channel to the boat ramp. The dredge will be marked by flashing yellow lights and the dredge pipeline will be marked by light buoys.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 143 - Aus 157 - AU439144

1466(T)/2009 AUSTRALIA - BASS STRAIT - Drilling operations

Former Notice - 850(T)/2009 is cancelled

Date - Until 31 January 2010

Origin Energy CSG Ltd (AA417748, AA445117)

The drill rig *Kan Tan IV* will be conducting drilling operations at well *Rockhopper-1* (39° 37'.50 S 145° 26'.35 E).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 487 - AU340145**1467(T)/2009 AUSTRALIA - VICTORIA - Barwon River - Lights trial**

Former Notice - 1036(T)/2007 is cancelled

Victorian Notice 139(T)/2007 (AA295030)

Trial leading lights, 317°, exist as follows:

<i>Position (WGS84 datum)</i>	<i>Remarks</i>
38° 16'. 97 S 144° 29'. 97 E	Front <i>Fl.4s</i>
38° 16'. 95 S 144° 29'. 94 E	Rear <i>F.Bu</i>

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 143 - AU439144**1468(T)/2009 AUSTRALIA - VICTORIA - Barwon River - Bridge construction; exclusion zones; light buoys established**

Former Notice - 1205(T)/2009 is cancelled

Date - Until 30 November 2010

Victorian Notice 133(T)/2009 (AA431931)

An exclusion zone exists around bridge construction works at the entrance to Barwon River.

An exclusion zone, marked by special buoys, exists in an area bounded by the following positions:

38° 16'.94 S 144° 29'.68 E
 38° 16'.92 S 144° 29'.87 E
 38° 16'.97 S 144° 29'.85 E
 38° 16'.98 S 144° 29'.67 E.

Lateral light buoys have been established to mark the permitted transit lane through the exclusion zone. Construction work requirements will from time to time require the short term closure of the transit lane. Advice will be provided when the closures are to occur on Coast Radio Melbourne VHF Ch 67 at 0848 and 1448.

Vessels entering the river from Bass Strait may be able to berth at the Barwon Heads main jetty (38° 17'.06 S 144° 29'.76 E) while the transit lane is closed. Vessels looking to access Bass Strait from the river will need to anchor or beach nearby to wait for the transit lane to be opened. No berthing is allowed at any time at the jetty (38° 16'.75 S 144° 29'.77 E).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 143 - Aus 788 - AU439144**1469(T)/2009 AUSTRALIA - VICTORIA - Port Phillip - Port Melbourne - River Yarra - Harbour works**

Former Notice - 1212(T)/2008 is cancelled

Date - Until 30 January 2010

Victorian Notice 173(T)/2009 (AA444962)

Harbour works and diving operations associated with the rehabilitation of the wharf face are in progress (37° 49'.23 S 144° 55'.77 E).

A safety floating boom exists between 25 South Wharf (37° 49'.24 S 144° 55'.86 E) and 26 South Wharf (37° 49'.22 S 144° 55'.68 E).

Further information can be obtained from Melbourne VTS on VHF Ch 12.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 154 - AU5XX154

1470(T)/2009 AUSTRALIA - BASS STRAIT - Drilling operations

Date - Until 31 May 2010

Esso Australia Pty Ltd (AA445557, AA445558)

The jack-up barge *Ocean Patriot* is conducting drilling operations in the following positions:

38° 07'.22 S 148° 23'.16 E
38° 09'.68 S 148° 12'.97 E
38° 10'.85 S 148° 35'.62 E
38° 10'.85 S 148° 35'.63 E
38° 10'.86 S 148° 35'.59 E
38° 10'.87 S 148° 35'.59 E
38° 19'.20 S 148° 06'.17 E.

A 500m safety zone exists at each location.

Chart temporarily affected - Aus 357A - Aus 487 - AU439148

TASMANIA

922(P)/2005 AUSTRALIA - TASMANIA - Furneaux Group - Franklin Sound - Shoaling.
DGST mA105447 ID 21857 (A159085).

Lesser depths than those charted exist in the approaches to Lady Baron as follows:

- (a) on the north bank between the 1.3 metre depth (40° 19'.46 S 148° 03'.27 E) and the port lateral buoy (40° 19'.39 S 148° 06'.54 E)
- (b) on the south bank between the 1 metre depth (40° 19'.29 S 148° 08'.19 E) and the drying bank (40° 18'.54 S 148° 10'.49 E)
- (c) in the passage west of Great Dog Island and Little Green Island; on the western bank between the drying bank (40° 14'.17 S 148° 13'.42 E) and Adelaide Bay (40° 13'.01 S 148° 14'.91 E).

Mariners are advised to navigate with caution in the area.

Chart which will be affected - Aus 179 - Aus 800.

131(T)/2008 AUSTRALIA - TASMANIA - Georges Bay - Shoaling
Former Notice - 1204(T)/2006 is cancelled
Marine and Safety Tasmania Notice M147-07 (AA306723)

Shoaling, minimum depth *1.5 metres*, exists along the track adjacent to Pelican Point inside Georges Bay. Local knowledge should be sought prior to transiting the barway and channel.

Chart temporarily affected - Aus 169

416(T)/2008 AUSTRALIA - TASMANIA - North West Bay - Snug Point - Wreck
Marine and Safety Tasmania Notice M42/2008 (AA327697)

A stranded wreck exists in position 43° 05'.10 S 147° 18'.06 E (WGS84 datum) marked by a special buoy.

Chart temporarily affected - Aus 171 - Aus 173 - Aus 174

417(P)/2008 AUSTRALIA - TASMANIA - Maria Island - Scientific instrument eastwards
Date - On or about 17 June 2008
Marine and Safety Tasmania Notice M41/2008 (AA327633)

Scientific instrument exists in position 42° 35'.80 S 148° 14.00 E (WGS84 datum).

A special light buoy, *Fl. Y. 6s*, will be established in position 42° 35'.94 S 148° 14.00 E.

Chart which will be affected - Aus 355 - Aus 766

509(T)/2008 AUSTRALIA - TASMANIA - Hobart - New Town Bay - Obstructions
Marine and Safety Tasmania Notice M47/2008 (AA331335)

A number of pontoons and barges have sunk. Mariners should not pass inshore of position 42° 50'.72 S 147° 19'.04 E and the remaining pontoons.

Chart temporarily affected - Aus 171 - Aus 172

833(T)/2008 AUSTRALIA - TASMANIA - River Derwent - Scientific instruments*Former Notice* - 676(T)/2008 is cancelled*Date* - Until 31 July 2010

Marine and Safety Tasmania Notice M68/2008 (AA344444)

Scientific instruments exist as follows:

<i>Position (WGS84 datum)</i>	<i>Remarks</i>
43° 02'.80 S 147° 24'.34 E	<i>Fl.6s 2M</i>
43° 03'.53 S 147° 22'.50 E	subsurface
43° 02'.88 S 147° 21'.12 E	subsurface
43° 03'.40 S 147° 20'.88 E	subsurface

Chart temporarily affected - Aus 171 - Aus 173 - Aus 174 - Aus 795**274(T)/2009 AUSTRALIA - TASMANIA - Storm Bay - Scientific instruments***Date* - Until 31 March 2010

Marine and Safety Tasmania M27/2009 (AA386833)

Scientific instruments exist as follows:

<i>Position</i>	<i>Remarks</i>
43° 12'.0 S 147° 33'.0 E	subsurface
43° 18'.0 S 147° 39'.6 E	subsurface
43° 18'.0 S 147° 39'.7 E	subsurface

Chart temporarily affected – Aus 795 – Aus 796**460(T)/2009 AUSTRALIA - TASMANIA - Spring Bay - Depth information***Former Notice* - 891(T)/2008 is cancelled

Tasports (AA397043, AA397044)

Available depths as at 3 March 2009:

<i>Berth</i>	<i>Metres</i>
Spring Bay Berth	11.0
Spring Bay Basin	10.5

* Indicates revised entry.

Chart temporarily affected - Aus 175**522(T)/2009 AUSTRALIA - TASMANIA - Hobart - Depth information***Former Notice* - 459(T)/2009 is cancelled

Marine and Safety Tasmania Notice M62/2009 (AA400769)

Available depths as at 21 April 2009:

	<i>Metres</i>
Princes 1	7.4
Princes Int	7.6
Princes 2	7.8
Princes 3	8.5
Princes 4	7.5
Elizabeth St South	9.8 (6.0m first 20m inner end)
Macquarie 1	6.8 (4.5m first 20m inner end)
Macquarie 2	9.3
Macquarie 3	10.0
Macquarie 4	13.0
Macquarie 5	12.0
Macquarie 6	11.0
Selfs Point	14.4
Risdon 1	9.2
Risdon 2	10.0

* Indicates new or revised entry.

Chart temporarily affected - Aus 172

574(T)/2009 AUSTRALIA - TASMANIA - Southport - Harbour works*Former Notice - 1321(T)/2008 is cancelled*

Marine and Safety Tasmania Notice M103/2008, M65/2009 (AA364362, AA402316)

Harbour works associated with the demolition of the existing jetty (43° 25'.97 S 146° 58'.47 E) and construction of a new jetty are in progress.

The light (43° 26'.00 S 146° 58'.49 E) is unlit.

The jetty is closed to all vessels. Limited berthing will be available on the jetty head in consultation with the contractor.

Chart temporarily affected – Aus 173 – Aus 174 – Aus 795 - AU444146**684(T)/2009 AUSTRALIA - TASMANIA - River Derwent - Flowerpot Point - Pipeline***Date - Until 24 July 2009*

Marine and Safety Tasmania Notice M75/2009 (AA408599)

A pipeline is being laid between positions 43° 00'.95 S 147° 19'.76 E and 43° 00'.95 S 147° 20'.10 E.

Works will be marked by flashing lights.

All vessels are required to keep a distance of at least 250m from the pipeline route.

Chart temporarily affected - Aus 171 - Aus 173 - AU444147**795(T)/2009 AUSTRALIA - TASMANIA - River Derwent - Hobart - Buoy established**

Marine and Safety Tasmania Notice M86/2009 (AA414916, AA414949)

A special buoy exists in position 42° 54'.11 S 147° 23'.02 E.

Chart temporarily affected – Aus 171**922(T)/2009 AUSTRALIA - TASMANIA - Burnie - Depth information***Former Notice - 686(T)/2009 is cancelled*

Tasports (AA420205)

Available depths as at 27 July 2009:

<i>Berth</i>	<i>Metres</i>	<i>Remarks</i>
* No 4 Berth	7.5	
* No 5 Berth	10.8	9.2m first 75m outer end, 10.8m for the next 200m
No 6 Berth	10.0	
* No 7 Berth	10.6	10.0m first 30m outer end, 10.2m for the next 35m, 10.6m for the next 205m

* Indicates new or revised entry.

Chart temporarily affected – Aus 163**979(T)/2009 AUSTRALIA - TASMANIA - Devonport - Depth information***Former Notice - 685(T)/2009 is cancelled*

Marine and Safety Tasmania Notice M100/2009 (AA423319)

Available depths as at 21 July 2009:

<i>Berth</i>	<i>Metres</i>
Entrance Channel	8.0
* Swing Basin	8.4
1E	6.5
* 2E	7.6
3E	7.8
* 1W	7.4
2W	6.3
3W	6.3
* 4W	8.6
* 5W	4.7

* Indicates new or revised entry.

Chart temporarily affected - Aus 164 - AU5164P1

1083(T)/2009 AUSTRALIA - TASMANIA - Macquarie Harbour - Scientific instruments*Date* - Until 19 October 2009

Marine and Safety Tasmania Notice M117/2009 (AA428132)

Scientific instruments marked by special buoys exist in positions 42° 21'.54 S 145° 24'.20 E and 42° 22'.07 S 145° 23'.83 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 177 - Aus 792**1085(T)/2009 AUSTRALIA - TASMANIA - River Tamar - Port Dalrymple - Reclamation works***Former Notice* - 1055(T)/2008 is cancelled*Date* - Until 10 March 2010

Marine and Safety Tasmania Notice M116/2009 (AA425265)

Reclamation works are in progress between positions 41° 08'.30 S 146° 50'.35 E and 41° 08'.20 S 146° 50'.00 E .

A silt curtain marked by three special light buoys, *Fl. Y.5s*, exists in the area.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 167 - Aus 799 - AU442146 - AU5167X8**1086(T)/2009 AUSTRALIA - TASMANIA - Bell Bay - Long Reach - Light beacon destroyed***Former Notice* - 220(T)/2008 is cancelled*Date* - Until 26 March 2010

Marine and Safety Tasmania Notice M115/2009 (AA425266)

No 2 light beacon K3588 (41° 09'.62 S 146° 54'.96 S) has been destroyed; a port lateral light buoy, *Fl. R.3s*, exists in situ.

Chart temporarily affected - Aus 167 - Aus 168 - AU5167X8**1142(T)/2009 AUSTRALIA - TASMANIA - Port Dalrymple - Scientific instruments***Date* - Until 30 September 2010

MetOcean Engineers (AA429344, AA429345)

Scientific instruments marked by surface floats exist in the following positions:

40° 59'.08 S 146° 46'.70 E

41° 00'.27 S 146° 51'.65 E

41° 03'.70 S 146° 45'.05 E

Chart temporarily affected – Aus 167 – Aus 799 - AU442146 - AU5167X8**1202(T)/2009 AUSTRALIA - TASMANIA - Spring Bay - Harbour works***Date* - Until 7 December 2009

Marine and Safety Tasmania Notice M137/2009 (AA433353)

Remediation works on the dolphin (42° 32'.95 S 147° 55'.80 E) are in progress.

During the works the light will be unlit.

Chart temporarily affected – Aus 170 – Aus 175 - AU443147 - AU5XX175**1204(T)/2009 AUSTRALIA - TASMANIA - Georges Bay - Wreck***Former Notice* - 1141(T)/2009 is cancelled*Date* - Until 31 October 2009

Marine and Safety Tasmania Notice M135/2009 (AA433115)

A stranded wreck exists in position 41° 16'.24 S 148° 20'.07 E, with a floating line 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 - AU442148

1341(T)/2009 AUSTRALIA - TASMANIA - Storm Bay - Scientific instruments

Date - Until 31 March 2010

Marine and Safety Tasmania Notice M164/2009 (AA439572)

Subsurface scientific instruments exist in positions (WGS84 datum):

43° 10'.29 S 147° 32'.09 E

43° 18'.00 S 147° 39'.60 E

43° 18'.00 S 147° 39'.70 E.

Chart temporarily affected - Aus 795 - Aus 796 - AU444147

1342(T)/2009 AUSTRALIA - TASMANIA - River Tamar - Dredging operations

Date - Until 22 January 2010

Marine and Safety Tasmania Notice M149/2009 (AA439343, AA439344)

Dredging operations are in progress in the River Tamar, in the vicinity of 41° 25'.81 S 147° 07'.43 E.

White buoys and lit pontoons mark a discharge pipeline, extending westwards from the dredge. The pipeline is not to be crossed during the operations.

Chart temporarily affected - Aus 168 - AU5167X8

1403(T)/2009 AUSTRALIA - TASMANIA - Burnie - Lights altered

Marine and Safety Tasmania Notice M171/2009 (AA441755)

The light, *Oc.5s 16m 6M* (41° 02'.91 S 145° 55'.01 E), has been altered to *F.16m 6M* and light, *Fl.G.3s 16m 5M* (41° 03'.08 S 145° 55'.28 E), has been altered to *F.G 16m 6M*.

Chart temporarily affected - Aus 163 - AU5163P1

PAPUA NEW GUINEA

967(P)/2005 PAPUA NEW GUINEA - Madang - Horizontal datum anomaly.
AHO (A170008).

A topographic anomaly of between 50 and 80 metres may exist on chart Aus 646 in an E direction.

Mariners using ENC/RNC are advised to navigate with caution when approaching Madang.

A verification survey will be undertaken shortly.

Chart which will be affected - Aus 646.

121(T)/2008 PAPUA NEW GUINEA - Lae - Wreck
Former Notice - 471(T)/2006 is cancelled
PNG National Maritime Safety Authority Notice 139/2007 (AA307967)

A wreck exists in position 6° 48'.3 S 146° 58'.2 E; which lies within the Lae anchorage area.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 523

355(T)/2008 PAPUA NEW GUINEA - Lae - Light buoy established
National Maritime Safety Authority PNG Notice 155/2008 (AA322034)

Spar wreck light buoy, *A/Oc.BuY.3s*, exists in position 6° 48'.37 S 146° 58'.14 E.

Chart temporarily affected - Aus 523

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)

406(T)/2008 PAPUA NEW GUINEA - Kimbe Island - Light unlit
Former Notice - 374(T)/2007 is cancelled
National Maritime Safety Authority PNG Notice 112/2007 (AA238440)

Light K3486 (5° 12'.29 S 150° 22'.59 E) is unlit.

Chart temporarily affected - Aus 547 - Aus 4622 (INT 622)

609(T)/2008 PAPUA NEW GUINEA - Bougainville Island - Lights unlit
Former Notice - 556(T)/2008 is cancelled
National Maritime Safety Authority PNG Notice 154/2008, 174/2008 (AA321602, AA342021)

The following lights are unlit:

<i>Location</i>	<i>Position (WGS84 datum)</i>
Takanupe Island (K4884.4)	6° 08'.86 S 155° 34'.30 E
Dokome Point (K4885.2)	6° 10'.91 S 155° 32'.94 E
Banaru Reef (K4885.7)	6° 08'.30 S 155° 38'.88 E
Wogoromodo Reef (K4885.6)	6° 10'.12 S 155° 39'.03 E
Moto Reef (K4885.8)	6° 08'.70 S 155° 39'.50 E
Arawa Bay (K4884.6)	6° 13'.74 S 155° 34'.37 E
Otua Islet (K4886)	6° 27'.50 S 155° 58'.40 E

Chart temporarily affected - Aus 399 - Aus 683 - Aus 4622 (INT 622)

1102(T)/2008 PAPUA NEW GUINEA - Rantan Island - Light unlit
National Maritime Safety Authority PNG Notice 209/2008 (AA363785)

The light K4887 (6° 40'.83 S 155° 58'.92 E) is unlit.

Chart temporarily affected - Aus 399 - AU407155

1471(T)/2009 PACIFIC OCEAN - Scientific instruments

Former Notice - 941(T)/2008 is cancelled
JAMSTEC (AA443477)

Scientific instruments, Triton buoys, exist as follows:

<i>Number</i>	<i>Position</i>
4	0° 00'.97 N 156° 02'.44 E
5	2° 01'.00 S 155° 57'.50 E
6	5° 01'.73 S 156° 01'.44 E
9	0° 03'.59 N 147° 00'.64 E

Chart temporarily affected - Aus 399 - Aus 4622 (INT 622) - AU306156

EAST TIMOR

309(T)/2005 EAST TIMOR - Pulau Jaco - Light unlit.

List of Lights Vol K/2005 -- 1371.500

MV *Total Provider* (A133672).

The light (8° 25'.3 S 127° 20'.2 E) is unlit.

Chart temporarily affected – Aus 311 – Aus 312 – Aus 313 – Aus 4721.

727(T)2006 EAST TIMOR - Dili - Point Laguebada - Light unlit.

List of Lights Vol K/2006 - 1368

OIC DGST (A195686).

The light (8° 32'.90 S 125° 34'.13 E) is unlit.

Chart temporarily affected - Aus 901.

MISCELLANEOUS

1147(T)/2009 AUSTRALIA - Summer time

Australian Government (AA427339)

Clocks will be advanced one hour at 0200 local time on 4 OCT 2009 and retarded one hour on 4 APR 2010 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.