ANNUAL

AUSTRALIAN

NOTICES TO MARINERS

IN FORCE ON 1 JANUARY 2014

(Former Annual Australian Notices to Mariners dated 1 January 2013
is cancelled and should be destroyed)

Containing Notices Numbers 1-26
and
Temporary and Preliminary Notices in force

The last Australian Notice to Mariners issued in 2013 was No 1297

ISSN 1035-6878

NUMERICAL INDEX

ALPHABETICAL INDEX

1. AUSTRALIAN CHARTING AND NOTICES TO MARINERS

General Information

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

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

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

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

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

International Chart Series

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

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

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

Index of Australian Charts

9. The index of Australian and International charts of the Australian Area is contained in two sheets as follows:
Aus 5000 - Australia - Index of Nautical Charts and Publications Northern Portion, 2014.
Aus 5001 - Australia - Index of Nautical Charts and Publications Southern Portion, 2014.

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

Australian Nautical Publications

11. ***The Australian National Tide Tables*** (ANTT) contains information for over 500 ports in Australia, Papua New Guinea, Solomon Islands, Antarctica and East Timor. This information includes but is not limited to:

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

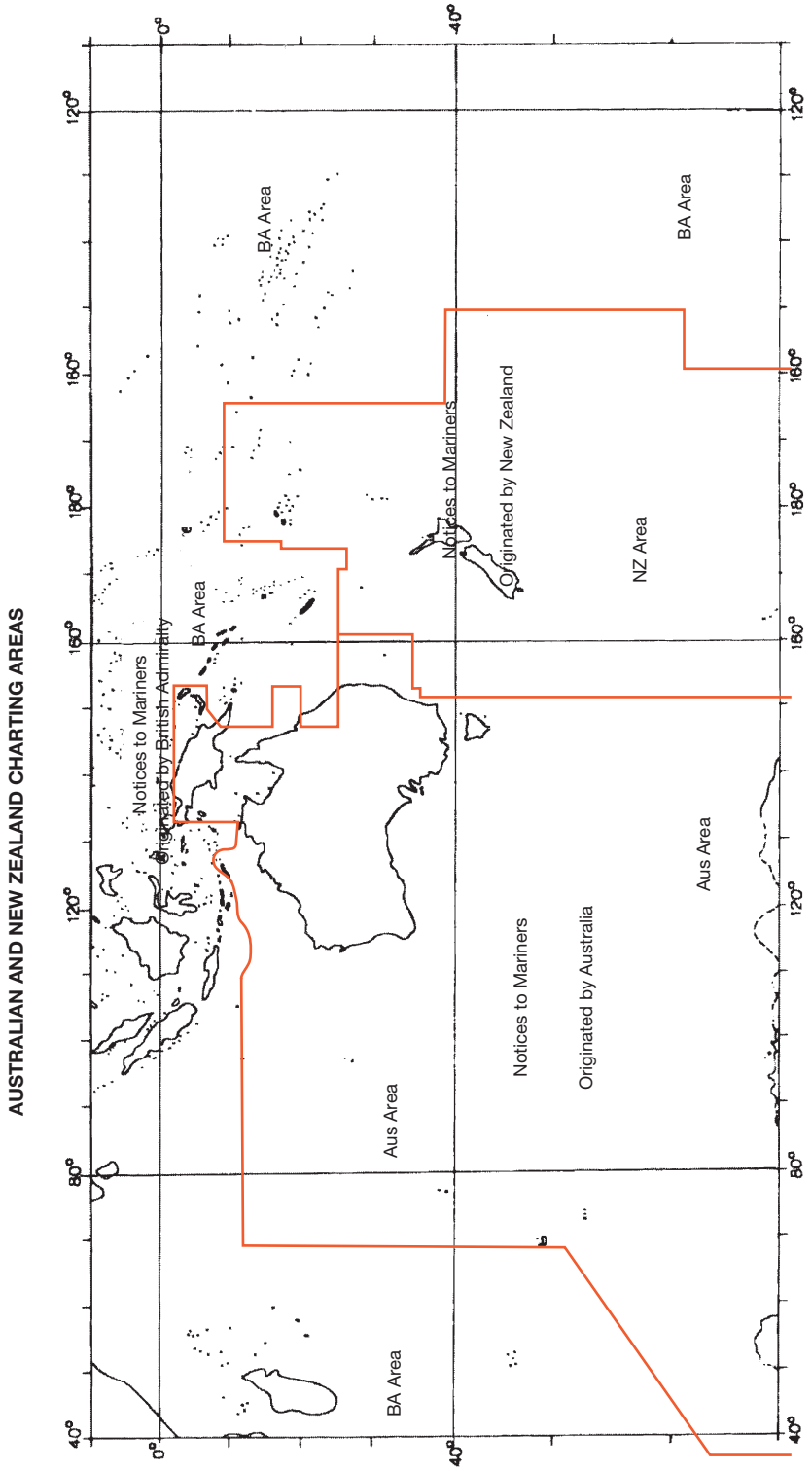
12. The ANTT is released annually in October and provides tidal predications for the following calendar year. It is maintained by *Notices to Mariners*, including *eNotices*.

13. ***The Seafarers Handbook For Australian Waters (AHP20)***, helps mariners to navigate with confidence through Australia's maritime rules and regulations.

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

15. It contains textual information which cannot be shown on navigational charts including but not limited to:

a) Maritime safety information, Meteorological broadcasts, Warnings, Search and Rescue
b) Marine protected areas and responsible agencies
c) Major Australian maritime legislation and regulations and responsible agencies,
d) MASTREP and REEFREP ship reporting systems and requirements,
e) Coastal pilotage, Torres Strait and GBR shipping routes, Accident and incident reporting
f) Maritime security, Customs, Quarantine, Immigration and Military information,
g) Contact details for:
   - Australian Maritime Safety Authority
   - Key Commonwealth agencies
   - Commercial ports and related Harbour Masters



Official Electronic Product Status

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

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

Australian *ENC*

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

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

AusRNC

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

Product Compatibility

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

***AusRNC* Packaging**

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

(a) **Australia Pack**: this pack includes all Australian navigational charts.

(b) **Regional Packs**: these packs (approximately 60 charts) will enable mariners to traverse major regional areas such as the Queensland coast. There are ten packs:

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

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

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

23. *AusChartviewer* is a desktop software package suitable for viewing a range of international chart formats including:
a) IHO S63 Protected ENC (including Australian ENC)
b) S57 ENC
c) HCRF Raster (AusRNC, Admiralty ARCS and New Zealand Mariner)
d) Australian HCRF Aligned Products (WA DPI RNC and GBRMPA RNC)

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

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

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

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

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

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

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

Australian Hydrographic Service. *(AA375255, AA375264)*

2. DISTRIBUTORS FOR THE SALE OF AUSTRALIAN NAVIGATIONAL PRODUCTS

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

Legend

C **Correcting Agent** - indicates agents who supply Australian nautical publications and supply Australian nautical charts that have been corrected for the latest *Australian Notices to Mariners*.

N **Non-Correcting Agent** - indicates agents who supply Australian nautical publications and supply un-corrected 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: AusTides 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	Telephone	+61 (0)2 6686 2669	**N**
Airport Industrial Estate	Fax	+61 (0)2 6686 3296	
22 Endeavour Close	Email	marinelandboats@bigpond.com.au	
Ballina 2478			

BATEMANS BAY

Batemans Bay Power and Sail	Telephone	+61 (0)2 4472 7263	**N**
1/61 Kylie Crescent	Fax	+61 (0)2 4472 7816	
Batemans Bay 2536	Email	powerandsail@hotmail.com	

EDEN

Eden Slipway Sevices Pty Ltd	Telephone	+61 (0)2 6496 1711	**N**
249 Imlay Street	Fax	+61 (0)2 6496 3528	
Eden 2551			

SYDNEY

Boat Books (Australia) Pty Ltd	Telephone	+61 (0)2 9439 1133	**C, S,**
31 Albany Street	Fax	+61 (0)2 9439 8517	**NtM**
Crows Nest 2065	Email	boatbooks@boatbooks-aust.com.au	
	Website	www.boatbooks-aust.com.au	
L-3 Oceania	Telephone	+61 (0)2 8405 0000	**S**
Level 1, 121 Walker Street	Fax	+61 (0)2 9959 3594	
North Sydney 2060	Email	spatial.Oceania@L-3Com.com	
	Website	www.L-3com.com/nautronix	
Hunt's Marine Pty Ltd	Telephone	+61 (0)2 9546 1324	**N**
625-635 Princes Highway	Fax	+61 (0)2 9546 7737	
Blakehurst 2221	Email	info@huntsmarine.com.au	
	Website	www.huntsmarine.com.au	
Map Centre - Parramatta	Telephone	+61 (0)2 9890 2080	**N**
440 Church Street	Fax	+61 (0)2 9890 2080	
North Parramatta 2151	Email	mapcentre@bigpond.com	
	Website	www.mapcentre.com.au	
The Chart Room	Telephone	+61 (0)2 9939 1966	**C**
Unit 31/9 Powells Road	Fax	+61 (0)2 9938 6210	
Brookvale 2100	Email	headland@no1.com.au	
Whitworth's Supermarket	Telephone	+61 (0)2 9525 5777	**N**
283A The Kingsway	Fax	+61 (0)2 9525 0366	
Caringbah 2229	Email	sales@whitworths.com.au	
	Website	www.whitworths.com.au	

WOLLONGONG

Bushcraft Equipment	Telephone	+61 (0)2 4229 6748	**N**
29 Stewart Street	Fax	+61 (0)2 4228 6638	
Wollongong 2500	Email	sales@bushcraftequipment.com	
	Website	www.bushcraftequipment.com.	

L-3 Oceania	Telephone	+61 (0)2 4220 4000	**S**
Level 1, Wing B, iC Central	Fax	+61 (0)2 4283 7988	
Innovation Campus, Squires Way	Email	spatial.Oceania@L-3Com.com	
Fairy Meadow 2519	Website	www.L-3com.com/nautronix	

YAMBA

Yamba Marina Pty Ltd	Telephone	+61 (0)2 6646 9898	**N**
3 Yamba Road	Fax	+61 (0)2 6646 1744	
Yamba 2464	Email	yambamarina@hotkey.net.au	

QUEENSLAND

AIRLIE BEACH

Airlie Bait & Tackle	Telephone	+61 (0)7 4946 6632	**N**
400 Shute Harbour Road	Fax	+61 (0)7 4946 6632	
Airlie Beach 4802	Email	geoffphilp@westnet.com.au	
Marlin Marine	Telephone	+61 (0)7 4946 6453	**N**
Shute Harbour Road	Fax	+61 (0)7 4946 6726	
Airlie Beach 4802	Email	marlinma@tpg.com.au	
	Website	www.marlinmarine.com.au	
Quadrant Marine	Telephone	+61 (0)7 4946 4033	**N**
Abel Point Marina	Fax	+61 (0)7 4946 4379	
Airlie Beach 4802	Email	quadrant@whitsunday.net.au	
	Website	www.quadrantmarine.com.au	

BOWEN

Bowen Independent	Telephone	+61 (0)7 4786 1888	**N**
28 George Street	Fax	+61 (0)7 4786 2273	
Bowen 4805			

BRISBANE

Boat Books (Australia) Pty Ltd	Telephone	+61 (0)7 3229 6427	**C, S,**
109 Albert Street	Fax	+61 (0)7 3221 9391	**NtM**
Brisbane 4000	Freecall (Aust)	1800 773 458	
	Email	brisbane@boatbooks-aust.com.au	
	Website	www.boatbooks-aust.com.au	
TMQ Electronics	Telephone	+61 (0)7 3890 7788	**S**
1/18 Alexandra Place	Fax	+61 (0)7 3890 7799	
Murarrie 4172	Freecall (Aust)	1800 777 835	
	Email	tmq@tmq.com.au	
	Website	www.tmq.com.au	
Whitworth's Supermarket	Telephone	+61 (0)7 3895 8300	**N**
55 Balaclava Street	Fax	+61 (0)7 3895 8028	
Woollongabba 4102	Email	sales@whitworths.com.au	
	Website	www.whitworths.com.au	

BUNDABERG

Rampant Marine Electronics	Telephone	+61 (0)7 4159 5344	**N**
16 Corser Street	Fax	+61 (0)7 4159 5413	
Burnett Heads	Email	rampant.marine@bigpond.com	
Port Bundaberg 4670	Website	www.rampantmarine.com.au	
Tackle World Bundaberg	Telephone	+61 (0)7 4153 4747	**C**
22 Quay Street	Fax	+61 (0)7 4152 6707	
Bundaberg 4670	Freecall (Aust)	1800 822 553	
	Email	info@saltys.net	
	Website	www.saltys.com.au	

CAIRNS

Absells Chart & Map Centre	Telephone	+61 (0)7 4041 2699	**N**
Main Street Arcade,	Fax	+61 (0)7 4051 2699	
85 Lake Street	Email	absells@iig.com.au	
Cairns 4870			
Cairns Charts & Maps	Telephone	+61 (0)7 4035 2100	**C, NtM**
Ground Floor, Reef Fleet Terminal	Mobile	0412 151 545	
1 Spence Street	Email	info@cairnscharts.com.au	
Cairns 4870	Website	www.cairnscharts.com.au	

Markwell Marine	Telephone	+61 (0)7 4030 0100	**N**
86-90 Mulgrave Road	Fax	+61 (0)7 4031 4114	
Cairns 4870	Email	grant@markwellmarine.com.au	
	Website	www.markwellmarine.com.au	

GLADSTONE

Compleat Angler Gladstone	Telephone	+61 (0)7 4972 7283	**N**
Bryan Jordan Drive	Fax	+61 (0)7 4972 7883	
or	email	gladstone@completeangler.com.au	
PO Box 1679	Website	www.completeangler.com.au	
Gladstone 4680			

GOLD COAST

Bosun's Locker	Telephone	+61 (0)7 5591 1911	**N**
Southport Yacht Club Marina	Fax	+61 (0)7 5591 6147	
MacArthur Parade	Email	boats@bosuns.com.au	
Main Beach 4217	Website	www.bosuns.com.au	
Coast Maps & Charts	Telephone	+61 (0)7 5537 2287	**N**
Shop A56	Fax	+61 (0)7 5537 2288	
Harbour Town Shopping Centre	Email	info@coastmaps.com.au	
Gold Coast Highway	Website	www.coastmaps.com.au	
Biggera Waters 4216			

MOOLOOLABA

Sunsport Marine	Telephone	+61 (0)7 5444 1076	**N**
3/10 Parkyn Parade	Fax	+61 (0)7 5444 1003	
Mooloolaba 4557	Email	supplies@sunsport.com.au	
	Website	www.sunsportmarine.com.au	

ROCKHAMPTON

Barra Jacks	Telephone	+61 (0)7 4922 4833	**N**
99 Denham Street	Fax	+61 (0)7 4922 3232	
Rockhampton 4700	Email	barrajacks@westnet.com.au	
	Website	www.tackleworld.com.au/Stores/Barra_Jacks.asp	
Blue Fin Sports	Telephone	+61 (0)7 4922 2211	**N**
57-59 Musgrave Street	Fax	+61 (0)7 4922 4624	
North Rockhampton 4701	Email	bluefinsports@bluefinsports.com.au	

THURSDAY ISLAND

Australian Reef Pilots	Telephone	+61 (0)7 4069 1570	**N**
16 John Street	Fax	+61 (0)7 4069 1812	
Thursday Island 4875	Email	arptis@bigpond.com	
	Website	www.reefpilots.com.au	

TOWNSVILLE

The Navigation Centre	Telephone	+61 (0)7 4772 1069	**C, S,**
9 Railway Avenue	Fax	+61 (0)7 4772 1079	**NTM**
Railway Estate, Townsville 4810	Email	shop@thenavigationcentre.com.au	
	Website	www.thenavigationcentre.com.au	

YEPPOON

Yeppoon Newsagency	Telephone	+61 (0)7 4939 3377	**N**
14 Normanby Street	Fax	+61 (0)7 4939 3377	
Yeppoon 4703			

VICTORIA

GEELONG

Power Drive Marine Pty Ltd	Telephone	+61 (0)3 5229 4632	**N**
11 Yarra St	Fax	+61 (0)3 5221 7487	
Geelong 3220	Email	powerdrivemarine@bigpond.com.au	
	Website	www.powerdrivemarine.com.au	

MELBOURNE

Anchor Marine Pty Ltd	Telephone	+61 (0)3 9598 8077	**N**
77 Beach Road	Fax	+61 (0)3 9598 0107	
Sandringham 3191	Email	info@anchor-marine.com.au	
	Website	www.anchor-marine.com.au	
Boat Books (Australia) Pty Ltd	Telephone	+61 (0)3 9525 3444	**C, S,**
214 St Kilda Road	Fax	+61 (0)3 9525 3355	**NtM**
St Kilda 3182	Freecall (Aust)	1800 333 276	
	Email	melbourne@boatbooks-aus.com.au	
	Website	www.boatbooks-aust.com.au	

Map Works	Telephone	+61 (0)3 9379 7533	**N**
184 Keilor Road	Fax	+61 (0)3 9379 7532	
North Essendon 3041	Email	enquiries@mapworks.com.au	
	Website	www.mapworks.com.au	
Melbourne Map Centre	Telephone	+61 (0)3 9569 5472	**C**
740 Waverley Road	Fax	+61 (0)3 9569 8000	
Malvern East 3145	Email	info@melbmap.com.au	
	Website	www.melbmap.com.au	
Whitworth's Supermarket	Telephone	+61 (0)3 9347 6511	**N**
556 Elizabeth Street	Fax	+61 (0)3 9347 6702	
Melbourne 3000	Email	sales@whitworths.com.au	
	Website	www.whitworths.com.au	

MORNINGTON

Sport Phillip Marine	Telephone	+61 (0)3 5975 4715	**N**
4/1002 Nepean Highway	Fax	+61 (0)3 5976 1700	
Mornington 3931	Email	info@sportphillip.com.au	
	Website	sportphillip.com.au	

TASMANIA

HOBART

Tasmanian Map Centre	Telephone	+61 (0)3 6231 9043	**N, NtM**
100 Elizabeth Street	Fax	+61 (0)3 6231 9053	
Hobart 7000	Email	maptas@netspace.net.au	
	Website	www.map-centre.com.au	

LAUNCESTON

Tamar Marine Pty Ltd	Telephone	+61 (0)3 6331 6188	**N**
6-8 West Tamar Highway	Fax	+61 (0)3 6334 2681	
Launceston 7250	Email	sales@tamarmarine.com.au	
	Website	www.tamarimarine.com.au	

SOUTH AUSTRALIA

ADELAIDE

Carto Graphics	Telephone	+61 (0)8 8357 1777	**N**
147 Unley Road	Fax	+61 (0)8 8357 3001	
Unley 5061	Email	sales@cartographics.com.au	
	Website	www.cartographics.com.au	
Quin Marine Pty Ltd	Telephone	+61 (0)8 8440 2800	**C**
57 St Vincent Street	Fax	+61 (0)8 8341 0567	
Port Adelaide 5015	Email	quin@quinmarine.com.au	
	Website	www.quinmarine.net.au	
Taylor Marine	Telephone	+61 (0)8 8248 0411	**N**
451 Victoria Raod	Fax	+61 (0)8 8248 2980	
Taperoo 5017	Email	csalt@taylormarine.com.au	
	Website	www.taylormarine.com.au	
The Map Shop	Telephone	+61 (0)8 8231 2033	**N**
6-10 Peel Street	Fax	+61 (0)8 8231 2373	
Adelaide 5000	Email	mercator@mapshop.net.au	
Whitworth's Supermarket	Telephone	+61 (0)8 8240 3777	**N**
85 St Vincent Street	Fax	+61 (0)8 8240 5111	
Port Adelaide 5015	Email	sales@whitworths.com.au	
	Website	www.whitworths.com.au	

PORT LINCOLN

Port Lincoln Boat Supplies	Telephone	+61 (0)8 8682 3122	**N**
7-9 Porter Street	Fax	+61 (0)8 8682 6976	
Port Lincoln 5606	Email	info@boatsupplies.net.au	
	Website	www.boatsupplies.net.au	
Seamaster Fishing Supplies	Telephone	+61 (0)8 8683 5130	**N**
31 Belair Drive	Fax	+61 (0)8 8683 5131	
Port Lincoln 5606	Email	comfishing@bigpond.com.au	
	Website	www.commercial-fishing.net	

WESTERN AUSTRALIA

ALBANY

Albany Map Centre	Telephone	+61 (0)8 9841 1179	**N**
126 York Street	Fax	+61 (0)8 9842 1093	
Albany 6330			

BROOME

Kimberley Camping & Outback Supplies	Telephone	+61 (0)8 9193 5909	**N**
Shop 3/65 Frederick Street	Fax	+61 (0)8 9193 6878	
Broome 6725	Email	matt@ kimberleycamping.com.au	
	Website	www.kimberleycamping.com.au	
Workline Dive & Tackle	Telephone	+61 (0)8 9192 2233	**N**
Short Street	Fax	+61 (0)8 9193 5839	
Chinatown	Email	workline@westnet.com.au	
Broome 6725			

CARNARVON

Carnarvon Tackle and Marine	Telephone	+61 (0)8 9941 4161	**N**
Lot AL Small Boat Harbour Road	Fax	+61 (0)8 9941 4221	
Carnarvon 6701	Email	ctm288@westnet.com.au	

ESPERANCE

Graham Gath Surveys	Telephone	+61 (0)8 9071 7272	**C**
Suite 5, Dempster Centre	Fax	+61 (0)8 9071 7273	
98 Dempster Street (PO Box 789)			
Esperance 6450			

FREMANTLE

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14 Collie Street	Fax	+61 (0)8 9335 8865	**NtM**
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	Website	www.chartandmapshop.com.au	
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134 Marine Terrace	Fax	+61 (0)8 9336 3676	
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	Website	www.tmq.com.au	

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Geraldton 6530	Email	accounts@geraldtonmarine.com.au	
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Bain Clarkson House	Fax	(44 1752) 253 599	
Brunswick Road	Email	sales@pcmaritime.co.uk	
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Bluewater Books & Charts	Telephone	(1 954) 763 6533	**C**
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Safe Navigation Inc.	Telephone	(1 562) 590 8744	**C, NtM**
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Long Beach 90802	Email	sales@safenav.com	
California	Website	www.safenavigation.com	

Australian Hydrographic Service. *(AA302908)*

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3. LASER AIRBORNE DEPTH SOUNDER

1. The Australian Hydrographic Service (AHS) 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)*

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4. SEARCH AND RESCUE (SAR)

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 vessel 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 MASTREP area depicted), assistance may be given by vessels in the vicinity and/or the following authorities:

(a) *Australian Maritime Safety Authority (AMSA)* specifically the Rescue Co-ordination Centre Australia (RCC Australia), is responsible for SAR for all civil aircraft, for merchant ships outside port limits and small craft beyond the capacity of local SAR resources. RCC Australia is located in Canberra and co-ordinates aircraft and surface vessels involved in SAR operations within the Australian SRR. RCC Australia is also the Australian Mission Control Centre (AUMCC) for the Cospas-Sarsat International Satellite System used for the detection of distress beacons. RCC Australia, which is manned continuously, may be contacted via the AMSA HF DSC network or Inmarsat.

(b) *The AMSA HF DSC Network* which has stations located at Wiluna (Western Australia) and Charleville (Queensland) is controlled from RCC Australia. This network will respond to initial calls on HF DSC. Vessels wishing to communicate with the HF DSC network (Station Identifier *RCC Australia*, callsign VIC, – MMSI Number 005030001) will be required to initiate a DSC call on the International Distress alerting frequencies 4207.5, 6312.0, 8414.5, 12577.0 -or 16804.5 kHz. The Inmarsat Land Earth Stations (LES) at Perth (Western Australia) and Burum (Netherlands) provide communications through both the Indian Ocean Region (IOR) and Pacific Ocean Region (POR) satellites. Details of Australian Maritime Communications Stations (MCS) can be found in relevant Admiralty List of Radio Signals and International Telecommunication Union publications.

(c) The *Royal Australian Air Force (RAAF)* is responsible for SAR operations involving Australian and foreign military land-based aircraft; but, may provide assistance to other SAR authorities.

(d) The *Royal Australian Navy (RAN)* is responsible for SAR in respect of naval ships and ship borne aircraft, but may provide assistance to other SAR authorities.

(e) The *Australian Army* is the SAR authority for Australian Defence Force (ADF) and visiting military forces in a land environment but may provide assistance to other SAR authorities.

(f) *State and Territory Police Forces* are responsible for SAR operations involving fishing vessels, pleasure craft and commercial vessels administered by their jurisdiction within the limitations of their SAR resources.

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

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

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

(a) Co-ordination and promulgation of Maritime Safety Information (MSI) in the form of Navarea X warnings, Australian Coastal Navigation warnings (Auscoast) and Sea Safety Messages (SSM).

(b) Operation of the Australian component of the Cospas-Sarsat International Satellite System for Search and Rescue. This system is equipped to receive and evaluate information transmitted by Emergency Position Indicating Radio Beacons (EPIRBs).

(c) Acting as AMSA's 24 hour point of contact for matters relating to AMSA's other areas of responsibility eg. Maritime Emergency Response Commander (MERCOM).

(d) Operation of the Modernised Australian Ship Tracking and Reporting System (MASTREP).

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RCC Australia Aviation +61 (0)2 6230 6899
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Freecall 1800-815 257 (Aviation)
Facsimile +61 (0)2 6230 6868
Email rccaus@amsa.gov.au
Radio via AMSA HF DSC network

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

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

Merchant Ship Search and Rescue

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

Obligation to Render Assistance

7. Under the *International Convention for the Safety of Life at Sea, 1974* and *section 181 of the Australian Navigation Act 2012,* 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 life rafts 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.

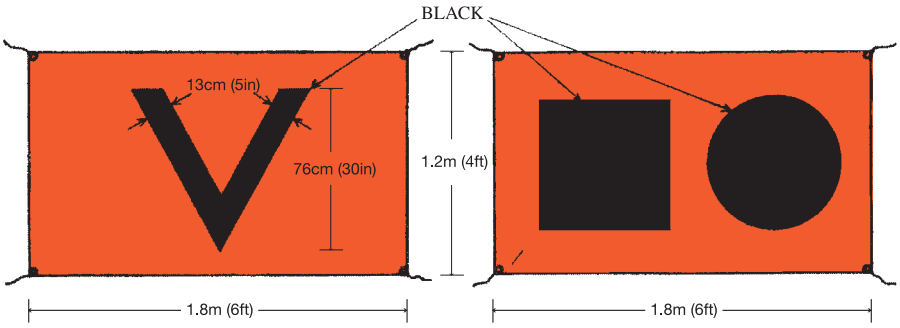
14. Where a helicopter is unable to safely operate over the deck of a vessel, the helicopter may be able to lift a man from a boat or raft towed astern on a long painter. In bad weather, survivors are sometimes more easily recovered from the sea than the vessel itself, particularly if it is a yacht.

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), through another SAR asset or RCC Australia.

Distress Signals for SAR

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

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



Use of Ships in Assisting Aircraft

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

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

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

Communications with Aircraft Searching for Survivors

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

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

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

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

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

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

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

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

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

(a) rocking the wings or
(b) opening and closing the throttle, or
(c) changing the propeller pitch.

Night Search by Aircraft

26. An aircraft searching at night for pyrotechnic equipped survivors or small craft will either fire a green flare or, in the case of non military aircraft, switch on landing lights at three to five minute intervals and at each turning point in the search pattern (*see page 21*). Survivors in the area should see at least two successive signals. Aircraft crew will acknowledge the sighting of distress flares by firing a succession of green flares and/or switching on the aircraft's landing lights.

Response Action by Survivors

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

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

Use of Emergency Position Indicating Radio Beacons (EPIRBs)

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

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

(a) EPIRBs operating on 406 MHz are detectable throughout the whole of the Australian SRR with a high degree of accuracy. These EPIRBs can also be detected almost instantaneously via the geostationary satellite system. GPS capable EPIRBs are recommended.

(b) 406 MHz beacons have global coverage because the satellites have a store and save capability that stores information from a 406 MHz beacon and sends the information to a ground station when it comes into view. Ground antennas are at Albany (Western Australia), Bundaberg (Queensland) and Wellington (New Zealand) giving excellent coverage around the coast of Australia and in the Coral and Tasman Seas. The average detection time increases towards the mid-Indian Ocean region. Mariners should note that Cospas-Sarsat ceased to process the 121.5/243.0 MHz frequencies on 1 February 2009. All mariners now require 406 MHz beacons. All Australian coded 406 MHz beacons must be registered with AMSA. Beacons can be registered on-line at https://www.beacons.amsa.gov.au/ or by contacting the Beacon Registration Cell on 1800 406 406. Beacons must be re-registered biennially and the battery expiry date should be noted to plan for replacement.

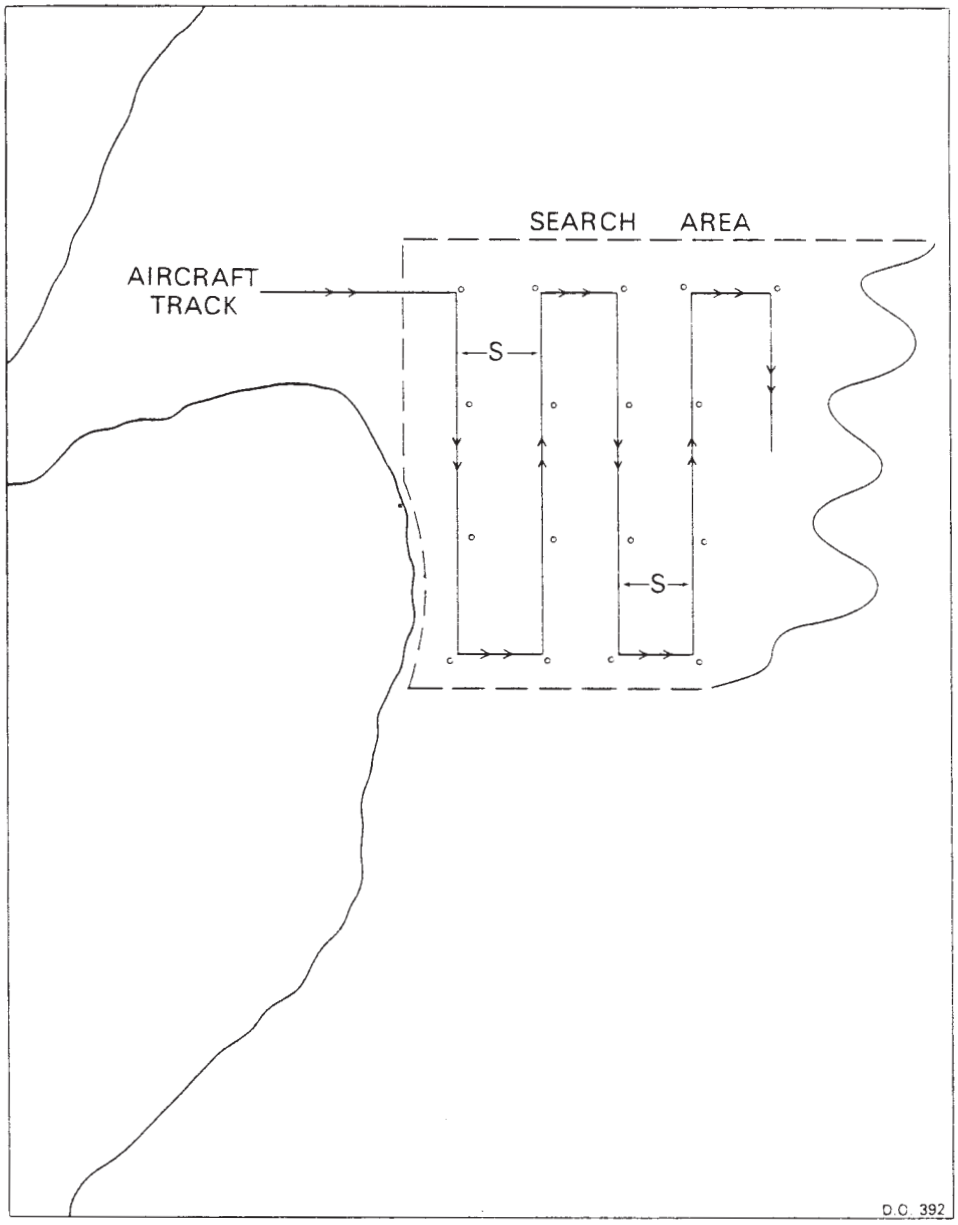
(c) The coverage area of the COSPAS-SARSAT GEOSAR satellites and the location of the GEOSAR Local User Terminals (GEOLUTs) are shown in Figure 1 *(see page 22)*.

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

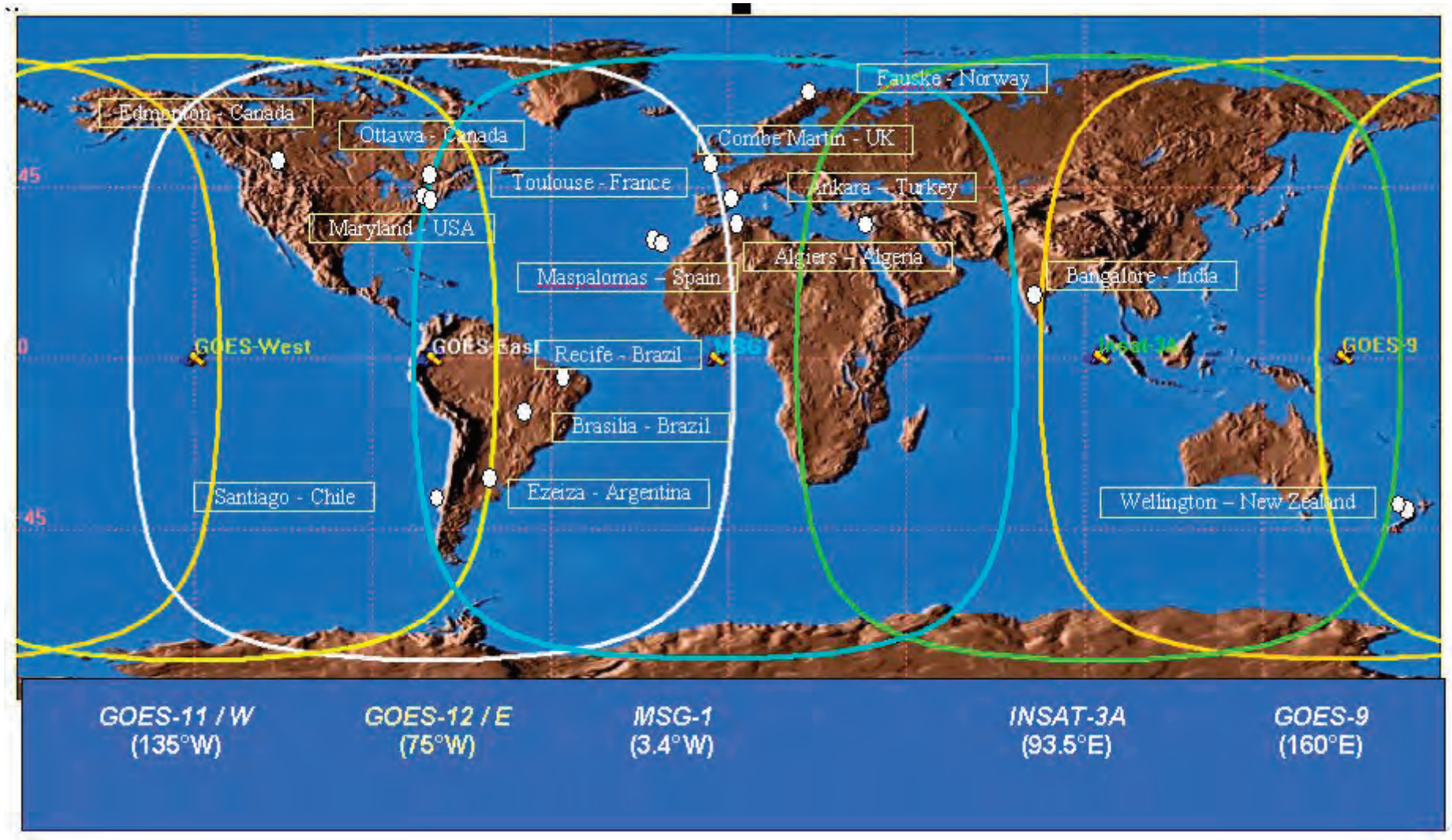
No action will be taken against any person reporting the inadvertent or accidental operation of an EPIRB.

DIAGRAM SHOWING NIGHT SEARCH TECHNIQUE



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

Figure 1. Cospas-Sarsat GEOSTATIONARY SATELLITES



Medical Advice

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

Medical Assistance

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

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

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

Medical Evacuations

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

38. **Questions for Masters requesting helicopter MEDEVAC**

(a) Description, colour and distinguishing features of vessel.
(b) Position of landing area and dimension of clear zone or position of winching area and dimension of manoeuvring zone.
(c) Maximum load deck can support at landing area.
(d) Weather report including sea state, barometric pressure and cloud base.
(e) Accuracy of your position and how obtained.
(f) Is crew experienced in helo operations, date of last helicopter transfer.
(g) Is a copy of IAMSAR Manual Vol III carried.
(h) Agents name, postal address and contact number.
(i) Personal details of patient (ensure personal papers carried)
    (i) Name
    (ii) Age
    (iii) Sex
    (iv) Nationality
    (v) Passport or Seamans 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 vessels 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 vessels communications system is maintained.

Australian Maritime Safety Authority, Canberra *(AA713805)*

4A. THE MODERNISED AUSTRALIAN SHIP TRACKING AND REPORTING SYSTEM (MASTREP)

MASTREP (see MASTREP and Australian Mandatory Reporting Guide)
For information on REEFREP see *Notice to Mariners No 22.*

Purpose of the MASTREP system

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

2. MASTREP, as prescribed in Marine Order 63 (MASTREP) 2013, is used to track the location of vessels. Under this system:
(a) positional reporting for vessels is sourced from the vessel's Automatic Identification System (AIS);
(b) communications with vessels continue to be available through Inmarsat, HF, satellite telephony and other means;
(c) Special Reports are required to support AMSA's role in shipping oversight and incident reporting management.

3. MASTREP provides positional data on vessels transiting Australia's region via AIS technology which ensures that only the closest vessels are requested to assist in a SAR incident, reducing the need for vessels to steam long distances from their intended voyage plan. The Search and Rescue Officers conducting such operations in the Australian region routinely use this facet of MASTREP. Given the expansiveness of Australia's Search and Rescue Region (SRR), merchant vessels are often the only resources available that can quickly respond to an incident.

Which vessels should report to MASTREP

4. The Commonwealth of *Australia Navigation Act 2012* and Marine Order 63 makes the provision of Position Reports mandatory for certain vessels. The following vessels must report to MASTREP:
(a) foreign vessels from the arrival at its first port in Australia until its departure from its final port in Australia; and
(b) all regulated Australian vessels whilst in the MASTREP area.

Voluntary participation

5. Domestic commercial vessels fitted with Global Maritime Distress and Safety System (GMDSS) and AIS technology are also encouraged to participate in the system as MASTREP assists AMSA in carrying out SAR activities.

Transmitting Mandatory Position Reports

6. MASTREP uses Position Reports, which must be transmitted by AIS in accordance with the International Convention for the Safety of Life at Sea (SOLAS), Chapter 5, Regulation 19.2.4. Position Reports must transmit the following information:
(a) identity
(b) type
(c) position
(d) course
(e) speed
(f) navigational status
(g) safety related information

7. Position reporting is automated and the data is fed in to the system using AIS. Positional data is usually updated at time intervals between five minutes and five hours depending on the location and source. There is **no** requirement in MASTREP to transmit Sail Plans (SP), Deviation Reports (DR) or Final Reports (FR).

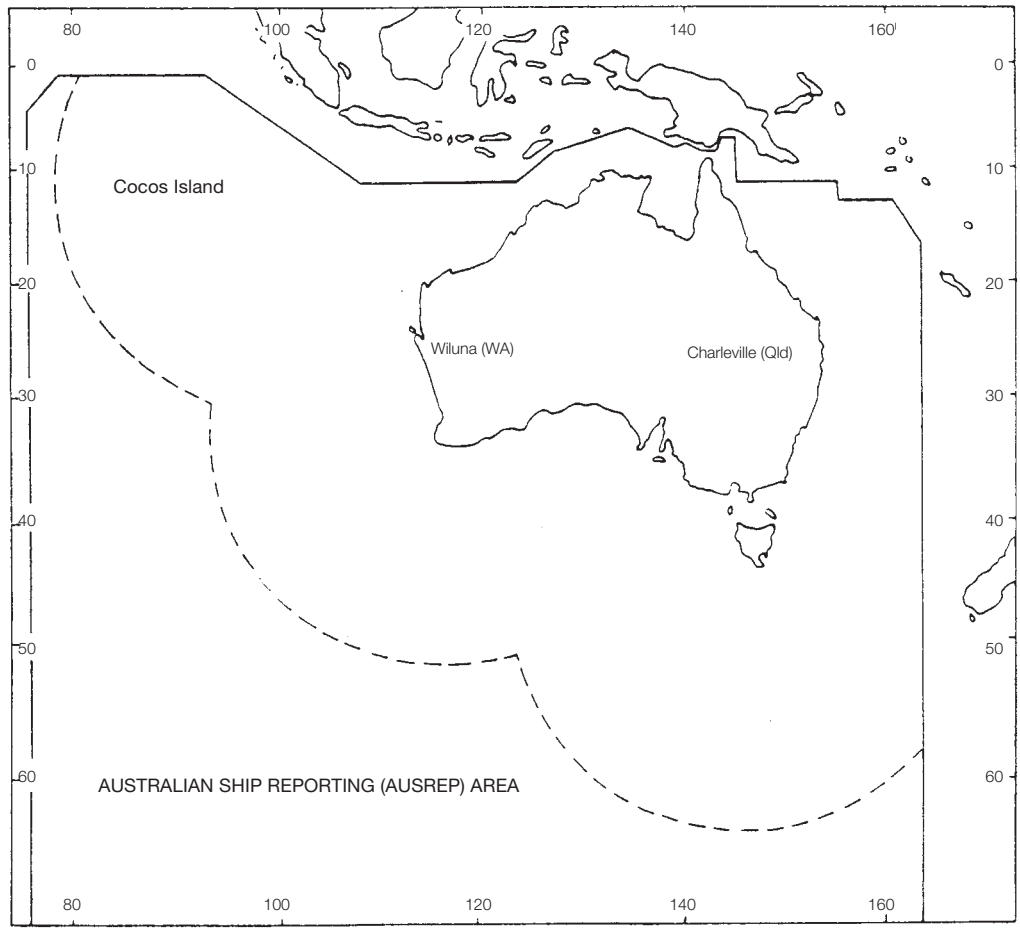
8. No positive SAR watch is maintained in MASTREP. MASTREP is a passive ship reporting system and does not involve shore to vessel communications. All distress messages should be sent directly to RCC Australia while in the MASTREP area. Similarly, any vessel copying an SOS, MAYDAY or DSC Alert from a distressed vessel, or otherwise becoming aware that a distress incident has occurred, should contact RCC Australia. See Communications with RCC Australia, below.

9. The Master of a vessel must report any malfunction of the vessel's AIS equipment to RCC Australia in accordance with Section 186 of the *Navigation Act 2012*.

The MASTREP coverage area

10. The area of coverage for MASTREP and for the Australian Search and Rescue Region (SRR) are identical. Coordinates of this area are:

The coast of the Antarctic continent in longitude 75°00'.00E thence
6°00'.00S 75°00'.00E
2°00'.00S 78°00'.00E
2°00'.00S 92°00'.00E
12°00'.00S 107°00'.00E
12°00'.00S 123°20'.00E
9°20'.00S 126°50'.00E
7°00'.00S 135°00'.00E
9°50'.00S 139°40'.00E
9°50'.00S 141°00'.00E
9°37'.00S 141°01'.06E
9°08'.00S 143°53'.00E
9°24'.00S 144°13'.00E
12°00'.00S 144°00'.00E
12°00'.00S 155°00'.00E
14°00'.00S 155°00'.00E
14°00'.00S 161°15'.00E
17°40'.00S 163°00'.00E
Thence to the coast of the Antarctic continent in longitude 163°00'.00E



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

Special Report types

11. Special report types include those for Dangerous Goods (DG), Harmful Substances (HS), and Marine Pollutants (MP). Special Reports should follow the guidelines for reporting as set out in *IMO Resolution A.851 (20)*, as amended by *IMO Resolution MEPC.138 (53).*See *Admiralty List of Radio Signals NP286(4) Volume 6 2012/2013* for format of Special Reports.

Marine Incident reporting

12. All Marine Incidents are to be reported to AMSA using form 'AMSA 18' and form 'AMSA 19'. Copies of these forms can be obtained from the AMSA website www.amsa.gov.au

13. Examples of incidents include, but are not limited to, the loss, death or serious injury of a person, the loss of or damage to a vessel, equipment failure, a collision or a pollution event.

14. Reports should be made in accordance to the requirements of the *Navigation Act 2012*, *Marine Orders,* and the *Occupational Health and Safety (Maritime Industry) Act 1993*, as applicable.

Non-mandatory reporting

15. Masters wishing to send information to RCC Australia or the Maritime Assistance Service, other than that which is mandated to be reported under the relevant legislation identified in the Marine Incident Reporting section, should complete an Information Report using the standard international ship reporting format as set out *IMO Resolution A.851 (20).*

16. Examples of non-mandatory reports include notification of navigational hazards, vessel defects or deficiencies, or other limitations which could adversely affect navigation.

REEFVTS interaction

17. The Australian Government operates a Vessel Traffic Service called REEFVTS in Torres Strait and the Great Barrier Reef. Vessels transiting through the Great Barrier Reef and the Torres Strait must report to the REEFVTS. Full details of REEFVTS, including procedures for reporting to the REEFTVS are provided in Notice to Mariners No 22 and the Great Barrier Reef and Torres Strait Vessel Traffic Service (REEFVTS) User Guide available from AMSA and Maritime Safety Queensland (MSQ) offices. An electronic copy of the user guide is also located on the AMSA and MSQ websites.

Reports to other reporting systems

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

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

Communications with RCC Australia

20. Primary Communications:

(a) The primary means of communication with MASTREP are:
  (i) Inmarsat C: Messages sent to MASTREP using special access code (SAC 1243) via the Perth LES (Pacific 212 or Indian 312 Ocean Region satellites) will be reverse charged to RCC Australia.
  (ii) HF DSC: Messages sent via the AMSA HF DSC network will be free of charge. Initial contact through the AMSA HF DSC station is made by using a DSC safety priority call to MMSI 005030001. The message can then be passed on an appropriate RT frequency. All reports sent by voice should include the mandatory format fields including the identifying letter.

(b) If Inmarsat C reports are not sent using SAC 1243 via 212 or 312 it is likely that the message will not be received by RCC Australia and charges will apply to the vessel.

21. Alternative Communications:

(a) 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 using one of the following:
  (i) Other Inmarsat phone/fax services: Vessels will be charged for messages sent to RCC Australia using Inmarsat systems other than Inmarsat C.
  (ii) Other (non Inmarsat) satellite phone/fax service: A reverse charge telephone call or facsimile may be used to pass reports when in port.

(b) Contact details for RCC Australia are:
  (i) Telephone: +61 (0)2 6230 6811 or free call 1800 641 792
  (ii) Facsimile: +61 (0)2 6230 6868 or free call 1800 622 153
  (iii) E-mail: rccaus@amsa.gov.au

Further information or advice on MASTREP procedures

22. Further information or advice on MASTREP is available in the MASTREP and Australian Mandatory Reporting Guide. Copies of this guide may be obtained free of charge from:

(a) AMSA – RCC Australia
Telephone +61 (0)2 6230 6811or free call 1800 641 792
Facsimile +61 (0)2 6230 6868or free call 1800 622 153
Postal Address GPO Box 2181
Canberra ACT 2601
Australia

(b) Website www.amsa.gov.au

(c) AMSA offices in major ports

(*AA637472*)

4B. 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 28).*

LIMITED COAST RADIO STATION FACILITIES AND FREQUENCIES

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

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

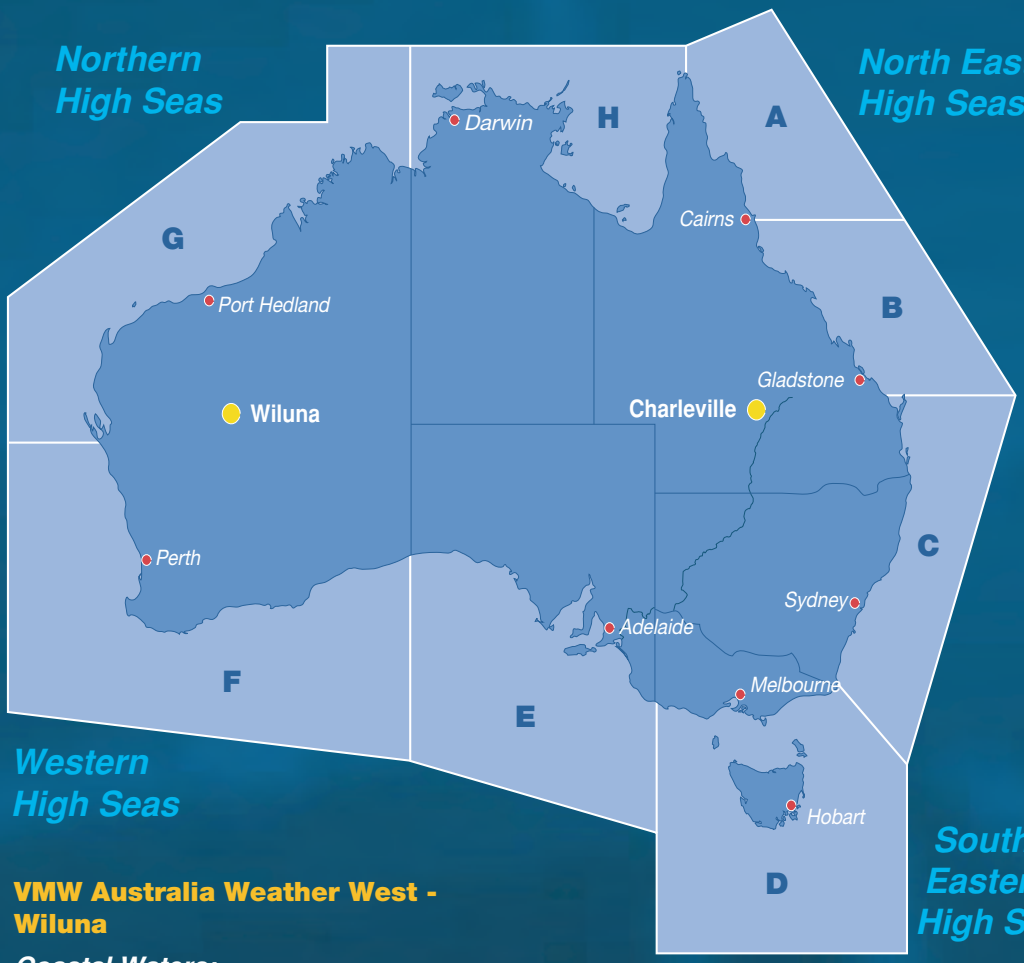
[2] Formerly Coast Radio Melbourne HF services for Victorian waters now provided from Charleville, Queensland, using callsign ‘Charleville Radio’.

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

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

Australian Maritime Safety Authority, Canberra. *(AA713805)*

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

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 MASTREP system. AMVER communications stations and message formats are described in *ALRS Vol 1 (Ship Reporting Systems)* and these should be used when outside the MASTREP area.

3. Further information may be obtained direct from:

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

Australian Maritime Safety Authority, Canberra. *(AA713805)*

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

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

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

Overview of GMDSS Services in Australia

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

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

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

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

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

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

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

Australian Maritime Safety Authority, Canberra. *(AA713805)*

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7. MARITIME SAFETY INFORMATION

1. Maritime Safety Information (MSI) such as navigational warnings are issued by the Rescue Coordination Centre Australia (RCC Australia), part of the Australian Maritime Safety Authority (AMSA). Warnings are broadcast on the Inmarsat-C Enhanced Group Call (ECG) 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 Mariner*s. 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 ECG 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 33*) 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", "unreliable", "reduced power" or "inoperative" which has been serviced and now exhibits its correct characteristic or power.
(l) **Replaced in position** - A floating aid previously described as "off station" or "temporarily withdrawn" is returned to its correct station.
(m) **Temporarily replaced by** - When any aid is discontinued, withdrawn or off station and another aid of a different type or characteristic is immediately established at the same station.
(n) **Temporarily removed** - When a floating aid has been entirely removed from its station and no similar aid left in its place, but intended to re-establish the aid in the near future.
(o) **Inoperative** - When a sound signal or radio beacon service is silent because of defective equipment or maintenance or any other unintentional or deliberate occurrence, and it is intended to restore it to normal as soon as practicable.
(p) **Permanently withdrawn** - When a floating aid has been entirely removed from its station, with no similar aid left in its place and it is not intended to re-establish that aid at that station in the future.
(q) **Permanently discontinued** - When any aid, including a sound signal or radio beacon service, but excluding a floating aid, is removed from a station because it is no longer required.

Reprints of Radio Navigational Warnings

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

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

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

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

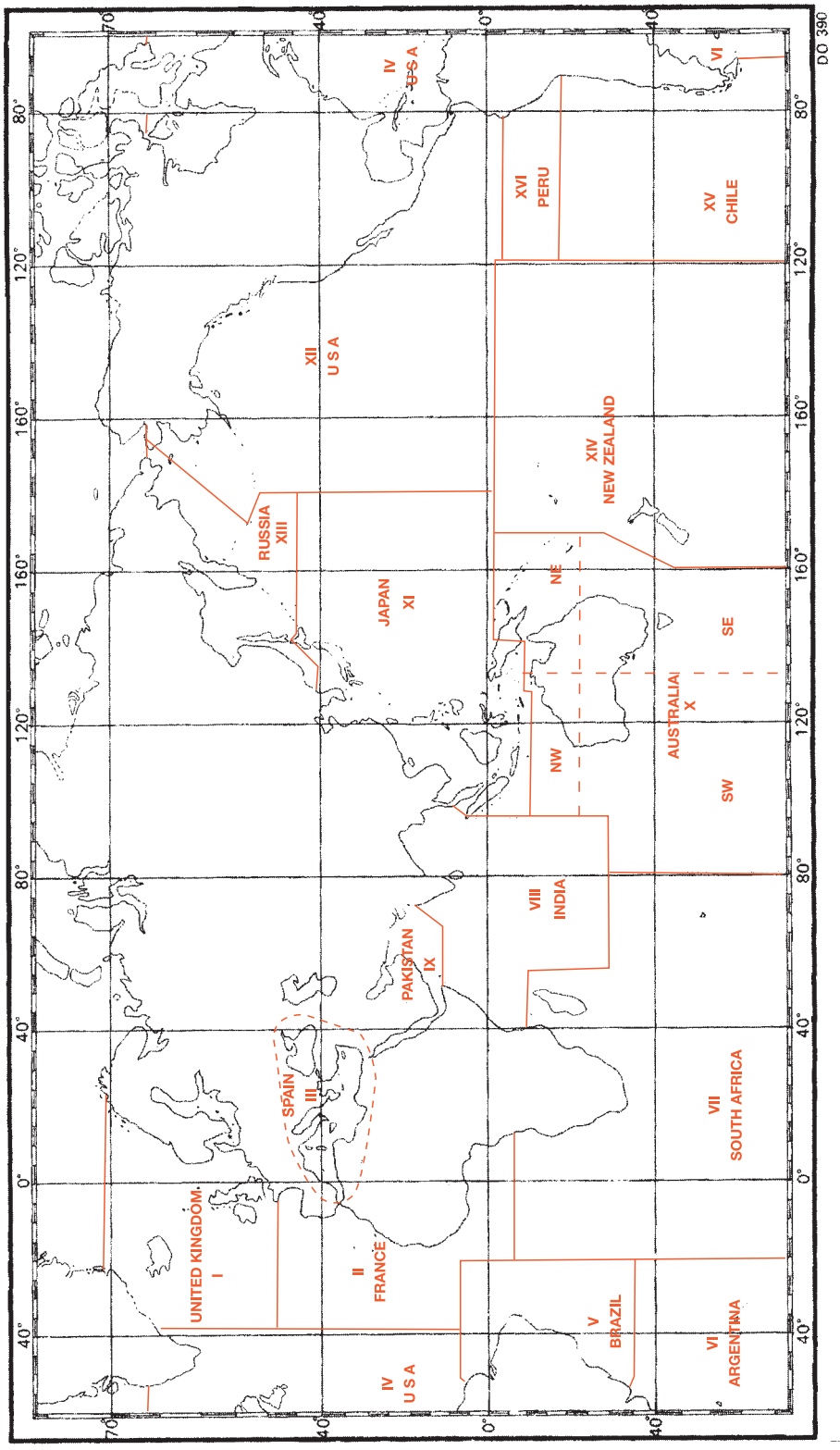
21. For mariners who have access to the Internet, a list of current navigation warnings is available from the AMSA web site at:

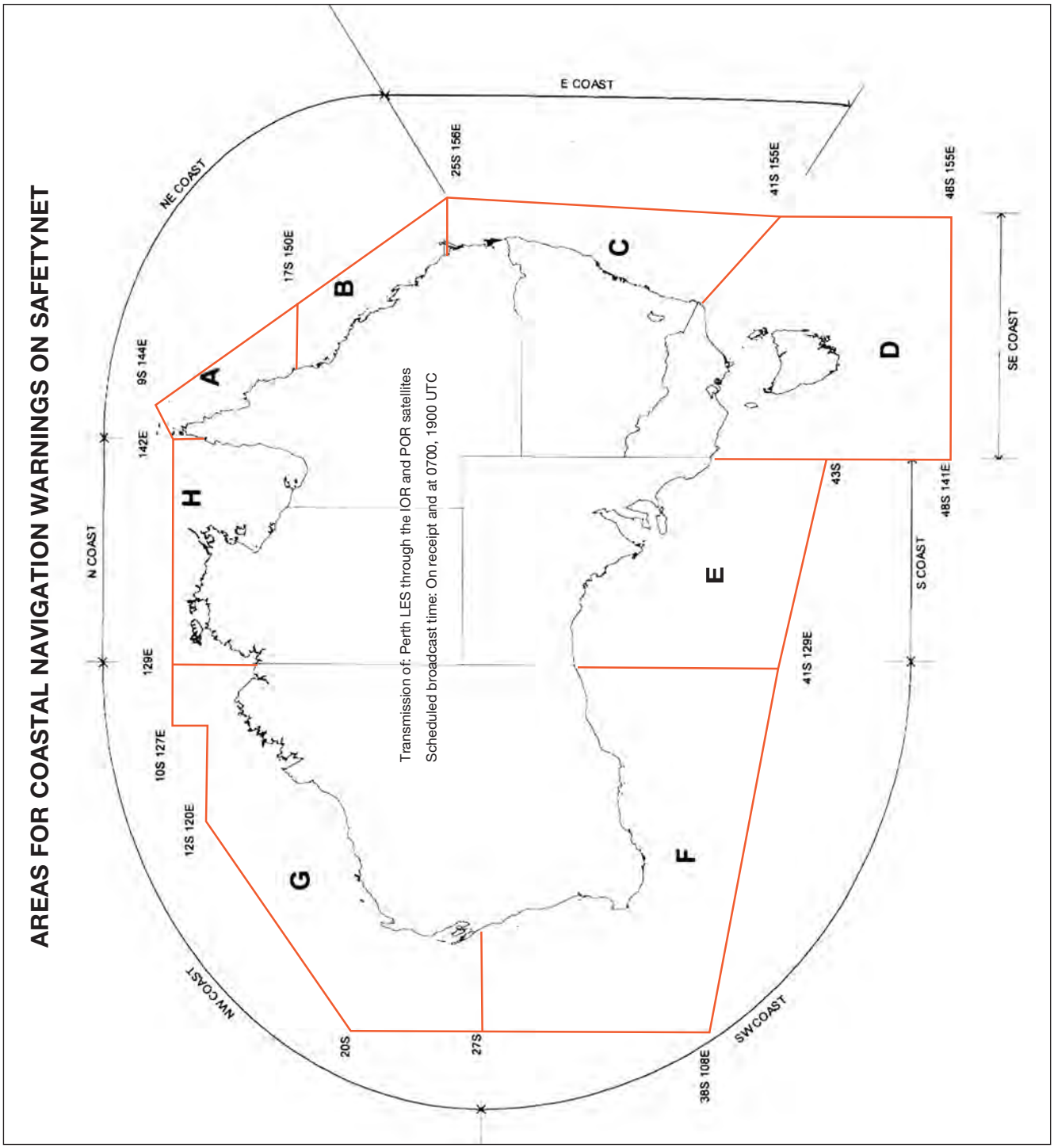
http://www.amsa.gov.au/search_and_rescue/distress_and_safety-comms/msi/

The list of current warnings may be sent to an e-mail address.

Australian Maritime Safety Authority, Canberra. *(AA713805)*

AREAS COVERED BY LONG RANGE RADIO NAVIGATIONAL WARNINGS





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. To ensure reception of MSI Inmarsat-C Ship Earth Stations (SES) must be correctly set-up and it is recommended that SES remain in operation whilst in port. It is also recommended that the latest version of SES software is installed. All users are invited to provide feedback on any aspect of the system with a view to improving the MSI services.

2. All Australian coastal navigation warnings will be promulgated via the POR and IOR satellites. Positional information should be regularly updated if the SES is not provided with automatic position information by an interface with navigational equipment. When a position has not been updated for more than 12 hours the SES will print all messages with priorities higher than routine for the entire ocean region.

3. Under the SafetyNET EGC system warnings are directed to specific geographical areas. Mariners must ensure that their SES is correctly configured to receive Navarea X and the alphabetical Coastal Warning Areas which are depicted in the accompanying diagram (see *page 34)*.

4. NAVAREA X and Auscoast warnings are issued by RCC Australia immediately on receipt of the information, and then repeated at the scheduled times of 0700 and 1900 UTC. A scheduled broadcast may not occur at precisely 0700 UTC or 1900 UTC, so it is recommended that the SES remains correctly configured until at least 40 minutes after the scheduled time. An SES will not display a navigation warning again, if it was previously received error free. However, if RCC Australia has to resubmit a message to the LES for any reason, the SES will treat it as a new message and display it on receipt.

5. When configuring the SES it should be noted that RCC Australia and the Bureau of Meteorology will utilise the following:
(a) Coastal Warning Areas as per the figure.
(b) Navigational Warnings for Coastal (AUSCOAST) Warnings.
(c) Additional Navigational Warnings for local (SSM) warnings.
(d) SAR for search and rescue messages.
(e) Meteorology Forecasts for Bass Strait weather.

Australian Maritime Safety Authority, Canberra. *(AA713805)*

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9. FIRING PRACTICE AND EXERCISE AREAS

General

1. This *Notice* contains the firing practice areas controlled by the Royal Australian Navy and declared under *Sub-Regulation 49(1) of Defence Force Regulations*, together with the appropriate Army and Air Force firing practice areas over the sea.

2. Firing practice areas may be selected anywhere and details are published in the *Australian Government Gazette* and the *Designated Airspace Handbook.*

3. The areas are listed in numerical order by States using standard reference numbers.

4. In view of the responsibility of range authorities to avoid accidents, limits of practice areas are not shown on charts and descriptions of areas will not appear in the *Sailing Directions.* However, beacons, lights and marking buoys, which may be of assistance to the mariner or targets which might be a danger to navigation, will appear on charts and, when appropriate, will be mentioned in the *Sailing Directions.*

5. Lights will be mentioned in the *Admiralty List of Lights and Fog Signals Vol K.*

Definitions

6. **Restricted Area (R-)**. An area of defined dimensions within which certain restrictions are applied to aircraft operations. When shown as an *R area* in *Notices to Mariners,* the air activity extends to sea level and the nature of the activity is such that dangers to maritime traffic may exist at specified times within the area defined in *Notices to Mariners.*

7. **Prohibited Area (P-).** An area of defined dimensions within which ships are not permitted at any time under any circumstances.

8. **Surface Restricted Area (SR-)**. A surface area of defined dimensions within which activities dangerous to maritime traffic may exist at specified times. The restriction is applicable to maritime traffic only.

Areas

9. The limits of all areas in this *Notice* are laid down in writing, numerically and graphically on chartlets by States.

10. Naval firings outside the areas listed in this publication are approved by the Department of Defence (Navy Office) from time to time.

Notification of Warnings

11. Warnings are promulgated as *Notices to Airmen (NOTAM)* originated by the RAN and RAAF.

12. Visual warnings will be used as follows:

(a) *Ships* - ships engaged in firing practice fly a red flag by day.

(b) *Range Craft* - all safety craft, target towers or control launches for radio controlled targets will display for identification the following:

(i) A large red flag at the masthead.

(ii) A painted canvas strip 1.8m x 0.9m (6 x 3 feet) with red and white or red and yellow checks in 0.3m (1 ft) squares on the foredeck or cabin roof.

(iii) Vessels should comply with requests made by Range Safety Craft.

13. Ships and aircraft carrying out night exercises may illuminate with bright white flares.

Vertical limits and Hours of Operations.

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

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

Types of Firing Practices.

15. The principal types of practices carried out are:

(a) *Bombing practice from aircraft* - warning signals usually shown.

(b) *Air to air, and air to sea or ground firing* - the former is carried out by aircraft at a large white or red sleeve, a winged target, or flag towed by another aircraft moving on a steady course. The latter is carried out from aircraft at towed or stationary targets on sea or land, the firing taking place to seaward in the case of those on land.

(c) *Anti-aircraft firing* - this may be from AA guns or machine guns at a target towed by an aircraft as in *para 15(b),* a pilotless target aircraft or, at balloons or kites. Practice may take place from shore batteries or ships

(d) *Firing from shore batteries or ships* - at fixed or floating targets.

(e) *Remote controlled craft* - these are 6.4 metre surface craft, orange in colour and carry no distinctive shapes or lights. They are however, fitted with navigation lights appropriate to their size in accordance with the *Regulations for Preventing Collisions at Sea, 1972.* Such craft are remotely controlled from helicopters, ships and occasionally from the shore.

(f) *Rocket and guided weapons firing* - these may take the form of *paras 15 (b), (c) or (d)*. All such firings are conducted under Clear *(Air and Sea) Range Procedure*. Devices are generally incorporated whereby the missiles may be destroyed should their flight be erratic.

Cautions

16. The absence of warning signals cannot be accepted as evidence that a practice does not exist.

17. The range authorities are responsible for ensuring that there should be no risk of damage from falling shell-splinters, bullets, etc, to any vessel which may be in the practice area.

18. If, however, a vessel finds itself 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 *Controlling Authority* Navy Fleet HQ Potts Point
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 *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits Nil *Times of Use* H24
Chart Aus 193 *Chartlet* 1
(a) 35° 04' 24" S 150° 41' 50" E (b) 35° 00' 32" S 150° 43' 27" E (c) 35° 01' 05" S 150° 46' 00" E
(d) 35° 04' 52" S 150° 46' 26" E (e) 35° 05' 38" S 150° 48' 00" E (f) 35° 05' 45" S 150° 48' 26" E
(g) 35° 05' 45" S 150° 55' 09" E (h) 35° 10' 02" S 150° 51' 32" E.

YMMM/R452 Beecroft Head
Nature of Activity Military flying/non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 808 *Chartlet* 1
(a) 34° 59' 00" S 151° 07' 00" E (b) 35° 08' 54" S 151° 07' 00" E (c) 35° 05' 27" S 150° 48' 56" E
(d) 35° 05' 27" S 150° 47' 12" E (e) 35° 06' 06" S 150° 42' 48" E (f) 35° 04' 20" S 150° 42' 15" E
(g) 35° 02' 18" S 150° 42' 09" E (h) 35° 00' 00" S 150° 44' 00" E (i) 35° 01' 24" S 150° 47' 15" E
(j) 35° 01' 24" S 150° 50' 24" E.

YMMM/R453A Tasman Sea
Nature of Activity Military flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4643 *Chartlet* 1
34° 59' 59" S 150° 49' 53" E, thence the minor arc of a circle of 15NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 34° 57' 30" S 150° 50' 14" E, 34° 57' 24" S 150° 59' 58" E, thence the minor arc of a circle of 23NM radius centred on Nowra Tacan, to 35° 12' 02" S 150° 53' 14" E 35° 03' 04" S 150° 40' 06" E, thence the minor arc of a circle of 9NM radius centred on Nowra Tacan, to 34° 59' 11" S 150° 42' 37" E.

YMMM/R453B Tasman Sea
Nature of Activity Military flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4643 *Chartlet* 1
35° 19' 57" S 150° 34' 29" E, thence the minor arc of a circle of 23NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 12' 02" S 150° 53' 14" E, 35° 03' 04" S 150° 40' 06" E, thence the minor arc of a circle of 9NM radius centred on Nowra Tacan, to 35° 05' 59" S 150° 33' 00" E.

YMMM/R453C Tasman Sea
Nature of Activity Military flying/non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4643 *Chartlet* 1
34° 57' 02" S 151° 30' 23" E, thence the minor arc of a circle of 48NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 13' 27" S 151° 26' 58" E, 35° 05' 04" S 150° 58' 14" E, thence the minor arc of a circle of 23NM radius centred on Nowra Tacan, to 34° 57' 24" S 150° 59' 58" E.

YMMM/R453D Tasman Sea
Nature of Activity Military flying/non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4643 *Chartlet* 1
35° 13' 27" S 151° 26' 58" E, thence the minor arc of a circle of 48NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 28' 00" S 151° 16' 47" E, 35° 12' 02" S 150° 53' 14" E, thence the minor arc of a circle of 23NM radius centred on Nowra Tacan, to 35° 05' 04" S 150° 58' 14" E.

YMMM/R453E Tasman Sea
Nature of Activity Military flying/non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4643 *Chartlet* 1
35° 28' 00" S 151° 16' 47" E, thence the minor arc of a circle of 48NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 38' 38" S 151° 01' 20" E. 35° 16' 58" S 150° 45' 59" E, thence the minor arc of a circle of 23NM radius centred on Nowra Tacan, to 35° 12' 02" S 150° 53' 14" E.

YMMM/R453F Tasman Sea
Nature of Activity Military flying/non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4643 *Chartlet* 1
35° 38' 38" S 151° 01' 20" E, thence the minor arc of a circle of 48NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 44' 53" S 150° 37' 10" E, 35° 19' 57" S 150° 34' 29" E, thence the minor arc of a circle of 23NM radius centred on Nowra Tacan, to 35° 16' 58" S 150° 45' 59" E.

YMMM/R453G Tasman Sea
Nature of Activity Military flying/non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4643 *Chartlet* 1
34° 56' 32" S 151° 59' 35" E, thence the minor arc of a circle of 72NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 21' 23" S 151° 54' 38" E, 35° 13' 27" S 151° 26' 58" E, thence the minor arc of a circle of 48NM radius centred on Nowra Tacan, to 34° 57' 02" S 151° 30' 23" E.

YMMM/R453H Tasman Sea
Nature of Activity Military flying/non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4643 *Chartlet* 1
35° 21' 23" S 151° 54' 38" E, thence the minor arc of a circle of 72NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 43' 14" S 151° 39' 32" E, 35° 28' 00" S 151° 16' 47" E, thence the minor arc of a circle of 48NM radius centred on Nowra Tacan, to 35° 13' 27" S 151° 26' 58" E.

YMMM/R453J Tasman Sea
Nature of Activity Military flying/non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4643 *Chartlet* 1
35° 43' 14" S 151° 39' 32" E, thence the minor arc of a circle of 72NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 35° 59' 23" S 151° 16' 13" E, 35° 38' 38" S 151° 01' 20" E, thence the minor arc of a circle of 48NM radius centred on Nowra Tacan, to 35° 28' 00" S 151° 16' 47" E.

YMMM/R453K Tasman Sea
Nature of Activity Military flying/non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4643 *Chartlet* 1
35° 59' 23" S 151° 16' 13" E., thence the minor arc of a circle of 72NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 36° 08' 50" S 150° 39' 46" E, 35° 44' 53" S 150° 37' 10" E, thence the minor arc of a circle of 48NM radius centred on Nowra Tacan, to 35° 38' 38" S 151° 01' 20" E.

YBBB-YMMM/R453L Tasman Sea
Nature of Activity Military flying/non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4643 *Chartlet* 1
34° 56' 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.

YBBB-YMMM/R453M Tasman Sea
Nature of Activity Military flying/non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4643 *Chartlet* 1
35° 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.

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

YBBB-YMMM/R453P Tasman Sea
Nature of Activity Military flying/non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4643 *Chartlet* 1
36° 56' 43" S 150° 45' 03" E, thence the minor arc of a circle of 120NM radius centred on Nowra Tacan (34° 57' 00" S 150° 32' 00" E), to 36° 40' 48" S 151° 46' 21" E, 35° 59' 23" S 151° 16' 13" E, thence the minor arc of a circle of 72NM radius centred on Nowra Tacan, to 36° 08' 50" S 150° 39' 46" E.

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

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

YBBB-YMMM/R485C Tasman Sea
Nature of Activity Military flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits SFC-8 500 *Times of Use* NOTAM
Chart Aus 4643 *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.

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

YBBB-YMMM/R485E Tasman Sea
Nature of Activity Military flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits SFC-FL205 *Times of Use* NOTAM
Chart Aus 4643 *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 Military flying/non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 489 *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 Military flying/non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4643 *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 Military flying/non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4643 *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 Military flying/non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4643 *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/R574 Williamtown
Nature of Activity Military flying *Controlling Authority* FLTCDR 453SQN Williamtown Flt
Vertical Limits SFC-FL600 *Times of Use* NOTAM
Chart Aus 209 *Chartlet* 2
(a) 31° 00' 21" S 153° 16' 04" E (b) 30° 43' 33" S 153° 24' 27" E (c) 31° 01' 44" S 155° 18' 14" E
(d) 32° 33' 37" S 154° 47' 57" E (e) 33° 51' 30" S 154° 01' 56" E (f) 33° 51' 30" S 152° 07' 57" E
(g) 33° 32' 50" S 151° 58' 52" E (h) 33° 12' 21" S 151° 56' 02" E,
thence the minor arc of a circle of 25NM radius centred on 32° 47' 49" S 151° 50' 00" E (WLM/TAC) to
(i) 32° 44' 36" S 152° 19' 24" E (j) 32° 25' 00" S 152° 33' 00" E (k) 32° 00' 00" S 152° 45' 52" E

YBBB/R587A Williamtown
Nature of Activity Military flying *Controlling Authority* Navy FLTCDR 453SQN Williamtown Flt
Vertical Limits FL125-FL600 *Times of Use* NOTAM
Chart Aus 809 *Chartlet* 2
32° 09' 43" S 152° 01' 43" E, 31° 59' 57" S 152° 22' 10" E, 32° 00' 00" S 152° 25' 00" E, 32° 25' 00" S 152° 33' 00" E, 32° 44' 36" S 152° 19' 24" E, thence the minor arc of a circle of 25NM radius centred on Williamtown TAC (32° 47' 49" S 151° 49' 59" E) to 33° 10' 38" S 151° 37' 42" E, 32° 53' 41" S 151° 37' 33" E, 32° 47' 22" S 151° 37' 30" E, 32° 37' 18" S 151° 43' 06" E, 32° 22' 47" S 151° 51' 04" E, thence the minor arc of a circle of 25NM radius centred on Williamtown TAC (32° 47' 49" S 151° 49' 59" E) to 32° 23' 49" S 151° 58' 27" E.

YBBB/R587B Williamtown
Nature of Activity Military flying *Controlling Authority* Navy FLTCDR 453SQN Williamtown Flt
Vertical Limits FL125-FL600 *Times of Use* NOTAM
Chart Aus 809 *Chartlet* 2
31° 00' 13" S 152° 45' 26" E, 31° 00' 21" S 153° 16' 04" E, 32° 00' 00" S 152° 45' 52" E, 32° 00' 00" S 152° 25' 00" E, 31° 59' 57" S 152° 22' 10" E, 32° 03' 53" S 152° 13' 57" E, 31° 34' 43" S 152° 23' 02" E.

YBBB/R596 Williamtown
Nature of Activity Military flying/non-flying *Controlling Authority* FLTCDR 453SQN Williamtown Flt
Vertical Limits SFC-FL120 *Times of Use* NOTAM
Chart Aus 809 *Chartlet* 2
(a) 32° 42' 00" S 152° 04' 00" E (b) 32° 46' 30" S 152° 04' 00" E (c) 32° 48' 50" S 151° 55' 33" 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: area may be subject to short notice recall

YBBB/R609 Evans Head
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
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/R638A Evans Head
Nature of Activity Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
Vertical Limits 1 000-8 000 *Times of Use* NOTAM
Chart Aus 813 *Chartlet* 2
(a) 28° 57' 00" S 153° 27' 30" E (b) 28° 56' 21" S 153° 31' 28" E, thence along the coast to 29° 06' 55" S 153° 26' 11" E, thence along the N bank of the Evans and Richmond Rivers to 29° 01' 20" S 153° 17' 00" E.
Note: NOTAM may be requested to change activation hours with 2 hours notification

YBBB/R638B Evans Head
Nature of Activity Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
Vertical Limits SFC-8 000 *Times of Use* NOTAM
Chart Aus 813 *Chartlet* 2
(a) 29° 15' 00" S 153° 03' 30" E (b) 29° 06' 00" S 153° 05' 40" E (c) 29° 01' 20" S 153° 17' 00" E, thence along the N bank of the Evans and Richmond Rivers to 29° 06' 55" S 153° 26' 11" E, thence along the coast to 29° 26' 28" S 153° 22' 12" E.
Note: NOTAM may be requested to change activation hours with 2 hours notification

YBBB/R638C Evans Head
Nature of Activity Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
Vertical Limits 8 000-NOTAM *Times of Use* NOTAM
Chart Aus 813 *Chartlet* 2
(a) 29° 15' 00" S 153° 03' 30" E (b) 29° 06' 00" S 153° 05' 40" E (c) 28° 57' 00" S 153° 27' 30" E
(d) 28° 56' 21" S 153° 31' 28" E, thence along the coast to 29° 26' 28" S 153° 22' 12" E.
Note: NOTAM may be requested to change activation hours with 2 hours notification

YBBB/R638D Evans Head
Nature of Activity Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 813 *Chartlet* 2
28° 52' 13" S 153° 49' 39" E, thence the minor arc of a circle of 30 NM radius centred on 29° 11' 51" S 153° 23' 44" E, to 29° 41' 39" S 153° 19' 07" E, thence along the coast to 28° 56' 21" S 153° 31' 28" E.
Note: NOTAM may be requested to change activation hours with 2 hours notification

YBBB/R662A AMBERLEY
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
Vertical Limits 5000-NOTAM *Times of Use* NOTAM
Chart Aus 812 *Chartlet* 2
(a) 28° 52' 13" S 153° 49' 39" E (b) 28° 32' 15" S 153° 56' 36" E (c) 28° 33' 12" S 154° 07' 49" E
(d) 28° 33' 47" S 154° 09' 20" E (e) 29° 13' 21" S 155° 07' 10" E (f) 30° 28' 10" S 154° 25' 53" E
(f) 30° 18' 53" S 153° 29' 32" E (g) 29° 39' 23" S 153° 37' 34" E, thence the minor arc of a circle of 30 NM radius centred on 29° 11' 51" S 153° 23' 44" E.

YBBB/R662B AMBERLEY
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
Vertical Limits 5000-NOTAM *Times of Use* NOTAM
Chart Aus 812 *Chartlet* 2
(a) 30° 28' 10" S 154° 25' 53" E (b) 29° 13' 21" S 155° 07' 10" E (c) 29° 48' 16" S 155° 59' 22" E
(d) 30° 38' 25" S 155° 31' 25" E

YBBB/R671A AMBERLEY
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
Vertical Limits FL125-FL245 *Times of Use* NOTAM
Chart Aus 812 *Chartlet* 2
(a) 30° 43' 33" S 153° 24' 27" E (b) 30° 18' 53" S 153° 29' 32" E (c) 30° 28' 10" S 154° 25' 53" E
(d) 30° 38' 25" S 155° 31' 25" E (e) 31° 01' 44" S 155° 18' 14" E

YBBB/R671B AMBERLEY
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
Vertical Limits FL245 -NOTAM *Times of Use* NOTAM
Chart Aus 812 *Chartlet* 2
(a) 30° 43' 33" S 153° 24' 27" E (b) 30° 18' 53" S 153° 29' 32" E (c) 30° 28' 10" S 154° 25' 53" E
(d) 30° 38' 25" S 155° 31' 25" E (e) 31° 01' 44" S 155° 18' 14" E

QUEENSLAND

YBBB/R637A Amberley
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
Vertical Limits 5000-NOTAM *Times of Use* NOTAM
Chart Aus 4635 *Chartlet* 3
(a) 25° 27' 41" S 153° 15' 56" E (b) 24° 50' 56" S 153° 38' 38" E (c) 25° 31' 53" S 154° 17' 17" E
(d) 26° 15' 42" S 153° 29' 56" E. (e) 26° 10' 07" S 153° 25' 43" E (f) 25° 44' 29" S 153° 16' 51" E

YBBB/R637B Amberley
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
Vertical Limits 5000-NOTAM *Times of Use* NOTAM
Chart Aus 4635 *Chartlet* 3
(a) 24° 50' 56" S 153° 38' 38" E (b) 23° 59' 01" S 154° 10' 14" E (c) 24° 49' 42" S 155° 02' 03" E
(d) 25° 31' 53" S 154° 17' 17" E

YBBB/R637C Amberley
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
Vertical Limits 5000-NOTAM *Times of Use* NOTAM
Chart Aus 4635 *Chartlet* 3
(a) 25° 31' 53" S 154° 17' 17" E (b) 24° 49' 42" S 155° 02' 03" E (c) 25° 39' 32" S 155° 54' 00" E
(d) 26° 12' 15" S 154° 55' 58" E

YBBB/R637D Amberley
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
Vertical Limits 5000-NOTAM *Times of Use* NOTAM
Chart Aus 4635 *Chartlet* 3
(a) 26° 15' 42" S 153° 29' 56" E (b) 25° 31' 53" S 154° 17' 17" E (c) 26° 12' 15" S 154° 55' 58" E
(d) 26° 46' 43" S 153° 53' 29" E

YBBB/R644 Amberley
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
Vertical Limits 5000-NOTAM *Times of Use* NOTAM
Chart Aus 4635 *Chartlet* 3
(a) 26° 46' 43" S 153° 53' 29" E (b) 26° 12' 15" S 154° 55' 58" E (c) 25° 39' 32" S 155° 54' 00" E
(d) 26° 15' 50" S 156° 30' 28" E (e) 26° 33' 23" S 155° 46' 55" E (e) 27° 13' 12" S 154° 44' 29" E
(f) 27° 23' 00" S 154° 28' 52" E

YBBB/R650A Amberley
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
Vertical Limits 5000-NOTAM *Times of Use* NOTAM
Chart Aus 4635 *Chartlet* 3
(a) 27° 23' 00" S 154° 28' 52" E (b) 27° 13' 12" S 154° 44' 29" E (c) 27° 46' 28" S 154° 44' 29" E

YBBB/R650B Amberley
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
Vertical Limits 5000-NOTAM *Times of Use* NOTAM
Chart Aus 4635 *Chartlet* 3
(a) 27° 13' 12" S 154° 44' 29" E (b) 26° 33' 23" S 155° 46' 55" E (c) 26° 15' 50" S 156° 30' 28" E
(d) 27° 16' 34" S 157° 31' 03" E (e) 28° 50' 10" S 156° 37' 53" E (e) 27° 46' 28" S 154° 44' 29" E

YBBB/R680 Akens Island
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Shoalwater Bay
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/R685A Wide Bay
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Wide Bay
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 817 *Chartlet* 3
(a) 25° 48' 14" S 152° 54' 17" E (b) 25° 48' 20" S 152° 55' 18" E (c) 25° 56' 44" S 152° 55' 18" E
(d) 25° 56' 58" S 152° 55' 21" E (e) 25° 57' 05" S 152° 54' 46" E (f) 25° 56' 40" S 152° 54' 25" E
(g) 25° 55' 39" S 152° 54' 17" E (h) 25° 55' 39" S 152° 51' 33" E
thence along Maryborough Cooloola Road to 25° 49' 26" S 152° 51' 46" E.

YBBB/R685B Wide Bay
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Wide Bay
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 817 *Chartlet* 3
(a) 25° 48' 20" S 152° 55' 18" E (b) 25° 48' 26" S 152° 56' 27" E (c) 25° 48' 46" S 152° 57' 10" E
(d) 25° 48' 40" S 152° 58' 03" E (e) 25° 48' 36" S 152° 58' 19" E (f) 25° 47' 51" S 152° 58' 59" E
(g) 25° 49' 40" S 153° 01' 12" E (h) 25° 50' 43" S 153° 01' 23" E (i) 25° 52' 40" S 153° 01' 53" E
(j) 25° 53' 43" S 153° 01' 41" E (k) 25° 54' 25" S 152° 59' 00" E (l) 25° 54' 58" S 152° 58' 51" E
(m) 25° 55' 19" S 152° 59' 11" E (n) 25° 55' 49" S 152° 59' 10" E (o) 25° 56' 29" S 152° 58' 29" E
thence along Tin Can Bay Road to (p) 25° 56' 46" S 152° 56' 30" E (q) 25° 56' 36" S 152° 56' 26" E
(r) 25° 56' 44" S 152° 55' 18" E.

YBBB/R682 Townshend Island
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Shoalwater Bay
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 Military flying/non-flying *Controlling Authority* Army RCO Shoalwater Bay
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 Military flying/non-flying *Controlling Authority* Army RCO Shoalwater Bay
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 Military flying/non-flying *Controlling Authority* Army RCO Shoalwater Bay
Vertical Limits 2 000-NOTAM *Times of Use* NOTAM
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/R686 Triangular Island
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Shoalwater Bay
Vertical Limits SFC-10 000 *Times of Use* NOTAM
Chart Aus 822 *Chartlet* 4
A circle of 3NM radius centred on 22° 23' 00" S 150° 30' 30" E.

YBBB/R687A Raspberry Creek
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Shoalwater Bay
Vertical Limits SFC-2 000 *Times of Use* H24
Chart Aus 822 *Chartlet* 4
(a) 22° 52' 05" S 150° 16' 31" E (b) 22° 27' 04" S 150° 05' 46" E (c) 22° 19' 00" S 150° 10' 46" E
thence SE along the coast to (d) 22° 30' 30" S 150° 27' 00" E (d) 22° 55' 00" S 150° 27' 00" E.

YBBB/R687B Raspberry Creek
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Shoalwater Bay
Vertical Limits 2 000-NOTAM *Times of Use* NOTAM
Chart Aus 822 *Chartlet* 4
(a) 22° 52' 05" S 150° 16' 31" E (b) 22° 27' 04" S 150° 05' 46" E (c) 22° 19' 00" S 150° 10' 46" E
thence SE along the coast to (d) 22° 30' 30" S 150° 27' 00" E (d) 22° 55' 00" S 150° 27' 00" E.

YBBB/R689 Shoalwater Bay
Nature of Activity Military flying *Controlling Authority* Army RCO Shoalwater Bay
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 367 *Chartlet* 4
(a) 22° 27' 04" S 150° 05' 46" E (b) 22° 15' 09" S 150° 00' 40" E, thence the major arc of a circle of 30 NM radius centred on 22° 16' 00" S 150° 33' 00" E to (c) 22° 41' 19" S 150° 50' 31" E
(d) 22° 19' 00" S 150° 49' 00" E (e) 22° 06' 00" S 150° 45' 00" E (f) 22° 06' 00" S 150° 30' 00" E
(g) 22° 12' 34" S 150° 25' 27" E (h) 22° 15' 00" S 150° 20' 00" E (i) 22° 17' 00" S 150° 12' 00" E.

YBBB/R693 Elliott
Nature of Activity Military flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 490 *Chartlet* 3
(a) 24° 24' 00" S 152° 08' 00" E (b) 24° 11' 00" S 152° 31' 00" E (c) 24° 28' 00" S 152° 58' 00" E
(d) 24° 41' 00" S 152° 34' 00" E.

YBBB/R695A Herbert Creek
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Shoalwater Bay
Vertical Limits SFC-2 000 *Times of Use* H24
Chart Aus 367 *Chartlet* 4
(a) 22° 38' 00" S 150° 05' 30" E (b) 22° 27' 30" S 150° 05' 30" E (c) 22° 27' 04" S 150° 05' 46" E
(d) 22° 52' 05" S 150° 16' 31" E (e) 22° 51' 30" S 150° 13' 30" E (f) 22° 44' 30" S 150° 08' 30" E.

YBBB/R695B Herbert Creek
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Shoalwater Bay
Vertical Limits 2 000-6 000 *Times of Use* NOTAM
Chart Aus 367 *Chartlet* 4
(a) 22° 38' 00" S 150° 05' 30" E (b) 22° 27' 30" S 150° 05' 30" E (c) 22° 27' 04" S 150° 05' 46" E
(d) 22° 52' 05" S 150° 16' 31" E (e) 22° 51' 30" S 150° 13' 30" E (f) 22° 44' 30" S 150° 08' 30" E.

YBBB/R695C Herbert Creek
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Shoalwater Bay
Vertical Limits 6 000-NOTAM *Times of Use* NOTAM
Chart Aus 367 *Chartlet* 4
(a) 22° 38' 00" S 150° 05' 30" E (b) 22° 27' 30" S 150° 05' 30" E (c) 22° 27' 04" S 150° 05' 46" E
(d) 22° 52' 05" S 150° 16' 31" E (e) 22° 51' 30" S 150° 13' 30" E (f) 22° 44' 30" S 150° 08' 30" E.

YBBB/R725 Saumarez Reef
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Amberley Flt
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 612 *Chartlet* 3
A circle of 5 NM radius centred on 21° 51' 18" S 153° 38' 47" E.

YBBB/R747 Rattlesnake Island
Nature of Activity Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Townsville Flt
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 827 *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 Military flying *Controlling Authority* FLTCDR 452SQN Townsville Flt
Vertical Limits SFC-FL600 *Times of Use* NOTAM
Chart Aus 827 *Chartlet* 5
(a) 19° 04' 56" S 146° 47' 41" E (b) 19° 08' 23" S 146° 43' 46" E (c) 19° 09' 00" S 146° 38' 30" E
(d) 19° 01' 30" S 146° 28' 00" E (e) 18° 55' 33" S 146° 23' 35" E (f) 18° 49' 00" S 146° 26' 00" E
(g) 18° 46' 00" S 146° 31' 00" E (h) 18° 49' 12" S 146° 34' 38" E thence the minor arc of a circle of 29 NM radius centred on Townsville Tacan (19° 16' 44" S 146° 44' 33" E), to 18° 48' 22" S 146° 51' 25" E.

YBBB/R767 Cairns
Nature of Activity Military non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 829 & Aus 830 *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 Military non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 829 & Aus 830 *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 Military non-flying *Controlling Authority* Navy Fleet HQ Potts Point
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 832 *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/non-flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits 5 000-NOTAM *Times of Use* NOTAM
Chart Aus 4721 *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 Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4721 *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 Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4721 *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/non-flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits 5 000-NOTAM *Times of Use* NOTAM
Chart Aus 4721 *Chartlet* 7
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.

YBBB/R230E Darwin
Nature of Activity Military Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits 5 000-NOTAM *Times of Use* NOTAM
Chart Aus 4721 *Chartlet* 7
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.

YBBB/R230F Darwin
Nature of Activity Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits 5 000-NOTAM *Times of Use* NOTAM
Chart Aus 4721 *Chartlet* 7
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.

YBBB/R264A Darwin
Nature of Activity Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4721 *Chartlet* 7
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.

YBBB/R264B Darwin
Nature of Activity Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4721 *Chartlet* 7
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' 54” E.

YBBB/R264C Darwin
Nature of Activity Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
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 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.

YBBB/R264D Darwin
Nature of Activity Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
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 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.

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

YBBB/R264F Darwin
Nature of Activity Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
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 Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
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 Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
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 Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
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 Military flying/non-flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
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 Military non-flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
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 *Controlling 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.

YMMM/R140A Garden Island
Nature of Activity Military non-flying *Controlling Authority* Navy HMAS Stirling
Vertical Limits SFC-1 500 *Times of Use* H24
Chart Aus 754 *Chartlet* 9
A circle of 1.0 NM radius centred on 32° 10' 36" S 115° 40' 18" E.

YMMM/R140B Garden Island
Nature of Activity Military non-flying *Controlling Authority* Navy HMAS Stirling
Vertical Limits 1 500-4 000 *Times of Use* NOTAM
Chart Aus 754 *Chartlet* 9
A circle of 1.0 NM radius centred on 32° 10' 36" S 115° 40' 18" E.

YMMM/R146A Lancelin
Nature of Activity Military flying/non-flying *Controlling Authority* Navy HMAS Stirling
Vertical Limits SFC-FL700 *Times of Use* NOTAM
Chart Aus 334 *Chartlet* 9
(a) 30° 54' 00" S 114° 56' 00" E (b) 30° 45' 30" S 115° 17' 30" E (c) 30° 55' 00" S 115° 24' 00" E
(d) 31° 07' 30" S 115° 05' 00" E.

YMMM/R146B Lancelin
Nature of Activity Military flying/non-flying *Controlling Authority* Navy HMAS Stirling
Vertical Limits SFC-FL260 *Times of Use* NOTAM
Chart Aus 334 *Chartlet* 9
(a) 30° 45' 30" S 115° 17' 30" E (b) 30° 41' 00" S 115° 27' 00" E (c) 30° 50' 00" S 115° 33' 00" E
(d) 30° 55' 00" S 115° 24' 00" E.

YMMM/R146C Lancelin
Nature of Activity Military flying/non-flying *Controlling Authority* Navy HMAS Stirling
Vertical Limits SFC-FL260 *Times of Use* NOTAM
Chart Aus 334 *Chartlet* 9
(a) 30° 41' 00" S 115° 27' 00" E (b) 30° 45' 30" S 115° 17' 30" E (c) 30° 47' 56" S 115° 11' 21" E
thence along the coast to (d) 30° 38' 57" S 115° 07' 36" E.

YMMM/R162 Pearce
Nature of Activity Military flying *Controlling Authority* Navy FLTCDR 453SQN Pearce Flt
Vertical Limits 6000-NOTAM *Times of Use* NOTAM
Chart Aus 334 *Chartlet* 9
32° 14' 51" S 115° 41' 24" E, 32° 13' 29" S 115° 40' 47" E, 32° 13' 49" S 115° 56' 52" E, 32° 13' 36" S 116° 04' 27" E, 33° 02' 56" S 116° 24' 49" E, thence the minor arc of a circle of 70NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 32° 58' 36" S 115° 18' 38" E, 32° 28' 35" S 115° 37' 42" E, 32° 22' 32" S 115° 39' 30" E.

YMMM/R163 Pearce
Nature of Activity Military flying/non-flying *Controlling Authority* Navy FLTCDR 453SQN Pearce Flt
Vertical Limits 4000-NOTAM *Times of Use* NOTAM
Chart Aus 754 *Chartlet* 9
32° 09' 27" S 115° 39' 32" E, 32° 14' 47" S 115° 29' 22" E, thence the minor arc of a circle of 30NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 31° 52' 31" S 115° 22' 40" E, 31° 52' 46" S 115° 24' 56" E, 31° 45' 43" S 115° 46' 02" E, 31° 47' 22" S 115° 50' 43" E, thence the minor arc of a circle of 11NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 31° 48' 23" S 115° 49' 06" E. 31° 57' 14" S 115° 36' 26" E, thence the minor arc of a circle of 18NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 32° 01' 07" S 115° 37' 02" E.

YMMM/R165 Pearce
Nature of Activity Military flying/non-flying *Controlling Authority* Navy FLTCDR 453SQN Pearce Flt
Vertical Limits 2000-NOTAM *Times of Use* NOTAM
Chart Aus 754 *Chartlet* 9
32° 52' 46" S 115° 24' 56" E, 31° 48' 30" S 114° 47' 46" E, thence the minor arc of a circle of 60NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 31° 06' 08" S 115° 19' 35" E, thence the minor arc of a circle of 60NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 31° 04' 05" S 115° 23' 36" E, then along the coast to 31° 45' 43" S 115° 46' 02" E.

YMMM/R167A Pearce
Nature of Activity Military flying/non-flying *Controlling Authority* Navy FLTCDR 453SQN Pearce Flt
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 754 *Chartlet* 9
32° 07' 13" S 115° 17' 04" E, thence the minor arc of a circle of 36NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 31° 51' 43" S 115° 15' 41" E, 31° 52' 31" S 115° 22' 40" E, thence the minor arc of a circle of 30NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 32° 05' 28" S 115° 23' 49" E.

YMMM/R167B Pearce
Nature of Activity Military flying/non-flying *Controlling Authority* Navy FLTCDR 453SQN Pearce Flt
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 754 *Chartlet* 9
32° 18' 24" S 115° 23' 42" E, thence the minor arc of a circle of 36NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 32° 07' 13" S 115° 17' 04" E, 32° 05' 28" S 115° 23' 49" E, thence the minor arc of a circle of 30NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 32° 14' 47" S 115° 29' 22" E.

YMMM/R168A Pearce
Nature of Activity Flying/non-flying *Controlling Authority* Navy FLTCDR 453SQN Pearce Flt
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 334 *Chartlet* 9
30° 50' 33" S 114° 00' 29" E, thence the minor arc of a circle of 120NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 30° 10' 34" S 114° 51' 52" E, thence the minor arc of a circle of 120NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 30° 08' 06" S 114° 57' 33" E, then along the coast to 31° 06' 08" S 115° 19' 35" E, thence the minor arc of a circle of 60NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 31° 23' 49" S 114° 58' 43" E.

YMMM/R168B Pearce
Nature of Activity Flying/non-flying *Controlling Authority* Navy FLTCDR 453SQN Pearce Flt
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 334 *Chartlet* 9
31° 40' 00" S 113° 38' 07" E, thence the minor arc of a circle of 120NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 30° 50' 33" S 114° 00' 29" E, 31° 23' 49" S 114° 58' 43" E, thence the minor arc of a circle of 60NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 31° 48' 30" S 114° 47' 46" E.

YMMM/D169 Swanbourne
Nature of Activity Firing *Controlling Authority* Army DOTAM WA
Vertical Limits SFC-1500 *Times of Use* H24
Chart Aus 754 *Chartlet* 9
(a) 31° 56' 49" S 115° 46' 00" E (b) 31° 58' 47" S 115° 46' 00" E (c) 31° 58' 47" S 115° 43' 00" E
(d) 31° 58' 47" S 115° 43' 00" E

YMMM/R184 Lancelin
Nature of Activity Military flying/non-flying *Controlling Authority* Navy HMAS Stirling
Vertical Limits SFC-4 000 *Times of Use* NOTAM
Chart Aus 105 *Chartlet* 9
A circle of radius 1.5 NM centred on 30° 52' 54" S 115° 16' 12" E.

YMMM/R190 Stirling
Nature of Activity Flying/non-flying *Controlling Authority* Navy HMAS Stirling
Vertical Limits SFC-2000 *Times of Use* NOTAM
Chart Aus 754 *Chartlet* 9
31° 52' 46" S 115° 24' 56" E, 31° 48' 30" S 114° 47' 46" E, thence the minor arc of a circle of 60NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 31° 23' 49" S 114° 58' 43" E, 31° 38' 11" S 115° 29' 51" E, 31° 50' 01" S 115° 33' 12" E.

YMMM/R191 Carrier
Nature of Activity Flying/non-flying *Controlling Authority* Navy HMAS Stirling
Vertical Limits SFC-FL260 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 9
31° 40' 00" S 113° 00' 00" E, 30° 00' 03" S 113° 00' 00" E, 30° 00' 13" S 113° 49' 39" E, 30° 00' 00" S 114° 30' 00" E, 30° 10' 34" S 114° 51' 52" E, thence the minor arc of a circle of 120NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 31° 40' 00" S 113° 38' 07" E.

YMMM/R192A Stirling
Nature of Activity Flying/non-flying *Controlling Authority* Navy HMAS Stirling
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 334 *Chartlet* 9
32° 30' 51" S 113° 41' 55" E, thence the minor arc of a circle of 120NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 31° 40' 00" S 113° 38' 07" E, 31° 47' 08" S 114° 36' 09" E, thence the minor arc of a circle of 70NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 32° 16' 55" S 114° 38' 39" E.

YMMM/R192B Stirling
Nature of Activity Flying/non-flying *Controlling Authority* Navy HMAS Stirling
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 334 *Chartlet* 9
32° 16' 55" S 114° 38' 39" E, thence the minor arc of a circle of 70NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 31° 47' 08" S 114° 36' 09" E, 31° 51' 43" S 115° 15' 41" E, thence the minor arc of a circle of 36NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 32° 07' 13" S 115° 17' 04" E.

YMMM/R192C Stirling
Nature of Activity Flying/non-flying *Controlling Authority* Navy HMAS Stirling
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 334 *Chartlet* 9
33° 08' 23" S 114° 03' 35" E, thence the minor arc of a circle of 120NM radius centred on PH/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 PH/DME (31° 56' 42" S 115° 57' 34" E) to 32° 38' 44" S 114° 51' 27" E.

YMMM/R192D Stirling
Nature of Activity Flying/non-flying *Controlling Authority* Navy HMAS Stirling
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 334 *Chartlet* 9
32° 38' 44" S 114° 51' 27" E, thence the minor arc of a circle of 70NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 32° 16' 55" S 114° 38' 39" E, 32° 07' 13" S 115° 17' 04" E, thence the minor arc of a circle of 36NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 32° 18' 24" S 115° 23' 42" E.

YMMM/R192E Stirling
Nature of Activity Flying/non-flying *Controlling Authority* Navy HMAS Stirling
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 334 *Chartlet* 9
33° 42' 40" S 114° 50' 16" E, thence the minor arc of a circle of 120NM radius centred on PH/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 PH/DME (31° 56' 42" S 115° 57' 34" E) to 32° 58' 36" S 115° 18' 38" E.

YMMM/R192F Stirling
Nature of Activity Flying/non-flying *Controlling Authority* Navy HMAS Stirling
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 334 *Chartlet* 9
32° 58' 36" S 115° 18' 38" E, thence the minor arc of a circle of 70NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 32° 38' 44" S 114° 51' 27" E, 32° 18' 24" S 115° 23' 42 E, thence the minor arc of a circle of 36NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 32° 28' 35" S 115° 37' 42" E.

YMMM/R192G Stirling
Nature of Activity Flying/non-flying *Controlling Authority* Navy HMAS Stirling
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 334 *Chartlet* 9
32° 28' 35" S 115° 37' 42" E, thence the minor arc of a circle of 36NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 32° 18' 24" S 115° 23' 42" E, 32° 14' 47" S 115° 29' 22" E, thence the minor arc of a circle of 30NM radius centred on PH/DME (31° 56' 42" S 115° 57' 34" E) to 32° 22' 32" S 115° 39' 30" E.

YBBB/R803A Curtin
Nature of Activity Military flying *Controlling Authority* Navy FLTCDR 452SQN Darwin Flt
Vertical Limits 5500-FL200 *Times of Use* NOTAM
Chart Aus 4722 *Chartlet* 12
16° 20' 06" S 123° 54' 41" E, thence the minor arc of a circle of 75NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 18° 15' 53" S 124° 57' 23" E, 17° 48' 57" S 124° 13' 06" E, thence the minor arc of a circle of 25NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 17° 10' 15" S 123° 52' 15" E.

YBBB/R803B Curtin
Nature of Activity Military flying *Controlling Authority* Navy FLTCDR 452SQN Darwin Flt
Vertical Limits FL200-FL600 *Times of Use* NOTAM
Chart Aus 4722 *Chartlet* 12
16° 20' 06" S 123° 54' 41" E, thence the minor arc of a circle of 75NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 18° 15' 53" S 124° 57' 23" E, 17° 48' 57" S 124° 13' 06" E, thence the minor arc of a circle of 25NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 17° 10' 15" S 123° 52' 15" E.

YBBB/R805A Curtin
Nature of Activity Military flying *Controlling Authority* Navy FLTCDR 452SQN Darwin Flt
Vertical Limits 5500-FL200 *Times of Use* NOTAM
Chart Aus 4722 *Chartlet* 12
17° 34' 12" S 123° 24' 58" E, thence the minor arc of a circle of 25NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 17° 58' 28" S 123° 40' 58" E, 18° 44' 45" S 123° 20' 36" E, thence the minor arc of a circle of 75NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 17° 31' 38" S 122° 32' 42" E.

YBBB/R805B Curtin
Nature of Activity Military flying *Controlling Authority* Navy FLTCDR 452SQN Darwin Flt
Vertical Limits FL200-FL600 *Times of Use* NOTAM
Chart Aus 4722 *Chartlet* 12
17° 34' 12" S 123° 24' 58" E, thence the minor arc of a circle of 25NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 17° 58' 28" S 123° 40' 58" E, 18° 44' 45" S 123° 20' 36" E, thence the minor arc of a circle of 75NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 17° 31' 38" S 122° 32' 42" E.

YBBB/R806A Curtin
Nature of Activity Military flying *Controlling Authority* Navy FLTCDR 452SQN Darwin Flt
Vertical Limits 5500-FL200 *Times of Use* NOTAM
Chart Aus 4722 *Chartlet* 12
17° 10' 15" S 123° 52' 15" E, thence the minor arc of a circle of 25NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 17° 34' 12" S 123° 24' 58" E, 17° 31' 38" S 122° 32' 42" E, thence the minor arc of a circle of 75NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 16° 20' 06" S 123° 54' 41" E.

YBBB/R806B Curtin
Nature of Activity Military flying *Controlling Authority* Navy FLTCDR 452SQN Darwin Flt
Vertical Limits FL200-FL600 *Times of Use* NOTAM
Chart Aus 4722 *Chartlet* 12
17° 10' 15" S 123° 52' 15" E, thence the minor arc of a circle of 25NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 17° 34' 12" S 123° 24' 58" E, 17° 31' 38" S 122° 32' 42" E, thence the minor arc of a circle of 75NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 16° 20' 06" S 123° 54' 41" E.

YBBB/R807A Curtin
Nature of Activity Military flying *Controlling Authority* Navy FLTCDR 452SQN Darwin Flt
Vertical Limits FL125-FL200 *Times of Use* NOTAM
Chart Aus 4722 *Chartlet* 12
15° 04' 52" S 123° 58' 17" E, thence the minor arc of a circle of 150NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 18° 55' 58" S 126° 04' 13" E, 18° 15' 53" S 124° 57' 23" E, thence the minor arc of a circle of 75NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 16° 20' 06" S 123° 54' 41" E.

YBBB/R807B Curtin
Nature of Activity Military flying *Controlling Authority* Navy FLTCDR 452SQN Darwin Flt
Vertical Limits FL200-FL600 *Times of Use* NOTAM
Chart Aus 4722 *Chartlet* 12
15° 04' 52" S 123° 58' 17" E, thence the minor arc of a circle of 150NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 18° 55' 58" S 126° 04' 13" E, 18° 15' 53" S 124° 57' 23" E, thence the minor arc of a circle of 75NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 16° 20' 06" S 123° 54' 41" E.

YBBB/R809A Curtin
Nature of Activity Military flying *Controlling Authority* Navy FLTCDR 452SQN Darwin Flt
Vertical Limits FL125-FL200 *Times of Use* NOTAM
Chart Aus 4722 *Chartlet* 12
19° 54' 05" S 122° 49' 43" E, thence the minor arc of a circle of 150NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 17° 27' 20" S 121° 14' 21" E, 17° 31' 38" S 122° 32' 42" E, thence the minor arc of a circle of 75NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 18° 44' 45" S 123° 20' 36" E.

YBBB/R809B Curtin
Nature of Activity Military flying *Controlling Authority* Navy FLTCDR 452SQN Darwin Flt
Vertical Limits FL200-FL600 *Times of Use* NOTAM
Chart Aus 4722 *Chartlet* 12
19° 54' 05" S 122° 49' 43" E, thence the minor arc of a circle of 150NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 17° 27' 20" S 121° 14' 21" E, 17° 31' 38" S 122° 32' 42" E, thence the minor arc of a circle of 75NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 18° 44' 45" S 123° 20' 36" E.

YBBB/R810A Curtin
Nature of Activity Military flying *Controlling Authority* Navy FLTCDR 452SQN Darwin Flt
Vertical Limits FL125-FL200 *Times of Use* NOTAM
Chart Aus 4722 *Chartlet* 12
17° 27' 20" S 121° 14' 21" E, thence the minor arc of a circle of 150NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 15° 04' 52" S 123° 58' 17" E, 16° 20' 06" S 123° 54' 41" E, thence the minor arc of a circle of 75NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 17° 31' 38" S 122° 32' 42" E.

YBBB/R810B Curtin
Nature of Activity Military flying *Controlling Authority* Navy FLTCDR 452SQN Darwin Flt
Vertical Limits FL200-FL600 *Times of Use* NOTAM
Chart Aus 4722 *Chartlet* 12
17° 27' 20" S 121° 14' 21" E, thence the minor arc of a circle of 150NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 15° 04' 52" S 123° 58' 17" E, 16° 20' 06" S 123° 54' 41" E, thence the minor arc of a circle of 75NM radius centred on Curtin VOR (17° 35' 20" S 123° 51' 07" E) to 17° 31' 38" S 122° 32' 42" E.

YBBB/R811 Curtin
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 4722 *Chartlet* 12
(a) 16° 04' 26" S 120° 56' 17" E (b) 14° 04' 27" S 122° 56' 24" E (c) 15° 04' 57" S 123° 58' 17" E
(d) 17° 04' 28" S 121° 56' 18" E.

YMMM/R850A Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM-FL280 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
22° 54' 26" S 116° 07' 49" E, thence the minor arc of a circle of 120NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 24° 07' 12" S 113° 21' 00" E, 22° 51' 49" S 113° 50' 54" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 22° 27' 47" S 114° 46' 13" E.

YMMM/R850B Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits FL280-FL600 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
22° 54' 26" S 116° 07' 49" E, thence the minor arc of a circle of 120NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 24° 07' 12" S 113° 21' 00" E, 22° 51' 49" S 113° 50' 54" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 22° 27' 47" S 114° 46' 13" E.

YMMM/R851A Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM-10 000 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
21° 22' 24" S 116° 02' 08" E, thence the minor arc of a circle of 120NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 22° 54' 26" S 116° 07' 49" E, 22° 27' 47" S 114° 46' 13" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 21° 57' 04" S 114° 44' 39" E.

YMMM/R851B Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits 10 000-FL280 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
21° 22' 24" S 116° 02' 08" E, thence the minor arc of a circle of 120NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 22° 54' 26" S 116° 07' 49" E, 22° 27' 47" S 114° 46' 13" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 21° 57' 04" S 114° 44' 39" E.

YMMM/R851C Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits FL280-FL600 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
21° 22' 24" S 116° 02' 08" E, thence the minor arc of a circle of 120NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 22° 54' 26" S 116° 07' 49" E, 22° 27' 47" S 114° 46' 13" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 21° 57' 04" S 114° 44' 39" E.

YMMM/R852A Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits 10 000-FL280 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
20° 24' 43" S 114° 59' 27" E, thence the minor arc of a circle of 120NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 21° 22' 24" S' 116° S 02' 08" E, 21° 57' 04" S 114° 44' 39" E thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 21° 37' 40" S 114° 23' 44" E.

YMMM/R852B Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits FL280-FL600 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
20° 24' 43" S 114° 59' 27" E, thence the minor arc of a circle of 120NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 21° 22' 24" S' 116° S 02' 08" E, 21° 57' 04" S 114° 44' 39" E thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 21° 37' 40" S 114° 23' 44" E.

YMMM/R853A Learmonth
Nature of Activity Military flying training *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM-FL280 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
19° 52’ 35” S 113° 10’ 54” E thence the minor arc of a circle of 150NM radius centred on Learmonth DME (22° 14' 05” S 114° 05' 38” E) to 19° 57' 19” S 115° 12' 42” E, 20° 52’ 05” S 114° 46’ 07” E thence the minor arc of a circle of 90NM radius centred on Learmonth DME to 20° 49' 14” S 113° 32' 34” E.

YMMM/R853B Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits FL280-FL600 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
19° 52’ 35” S 113° 10’ 54” E thence the minor arc of a circle of 150NM radius centred on Learmonth DME (22° 14' 05” S 114° 05' 38” E) to 19° 57' 19” S 115° 12' 42” E, 20° 52’ 05” S 114° 46’ 07” E thence the minor arc of a circle of 90NM radius centred on Learmonth DME to 20° 49' 14” S 113° 32' 34” E.

YMMM/R854A Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM-FL280 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
20° 49' 14” S 113° 32' 34” E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME (22° 14' 05” S 114° 05' 38” E) to 20° 52' 05” S 114° 46' 07” E, 21° 37' 40” S 114° 23' 44” E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 21° 36' 25” S 113° 50' 49” E.

YMMM/R854B Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits FL280-FL600 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
20° 49' 14” S 113° 32' 34” E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME (22° 14' 05” S 114° 05' 38” E) to 20° 52' 05” S 114° 46' 07” E, 21° 37' 40” S 114° 23' 44” E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 21° 36' 25” S 113° 50' 49” E.

YMMM/R859A Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM-10 000 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
A circle of 40NM radius centred on Learmonth DME (22° 14' 05” S 114° 05' 38” E).

YMMM/R859B Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits 10 000-FL280 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
A circle of 40NM radius centred on Learmonth DME (22° 14' 05” S 114° 05' 38” E).

YMMM/R859C Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits FL280-FL600 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
A circle of 40NM radius centred on Learmonth DME (22° 14' 05” S 114° 05' 38” E).

YMMM/R860A Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM-2 500 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
A circle of 25NM radius centred on Learmonth DME (22° 14' 05” S 114° 05' 38” E).

YMMM/R860B Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits 2 500-FL280 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
A circle of 25NM radius centred on Learmonth DME (22° 14' 05” S 114° 05' 38” E).

YMMM/R860C Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits FL280-FL600 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
A circle of 25NM radius centred on Learmonth DME (22° 14' 05” S 114° 05' 38” E).

YMMM/R861A Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM-FL280 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
22° 29' 33” S 112° 29' 59” E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME (22° 14' 05” S 114° 05' 38” E) to 20° 49' 14” S 113° 32' 34” E, 21° 36' 25” S 113° 50' 49” E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 22° 21' 08” S 113° 23' 11” E.

YMMM/R861B Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits FL280-FL950 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
22° 29' 33" S 112° 29' 59" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 20° 49' 14" S 113° 32' 34" E, 21° 36' 25" S 113° 50' 49" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 22° 21' 08" S 113° 23' 11" E.

YMMM/R862A Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM-FL280 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
22° 39' 16" S 111° 26' 00" E, thence the minor arc of a circle of 150NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 19° 52' 35" S 113° 10' 54" E, 20° 49' 14" S 113° 32' 34" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME to 22° 29' 33" S 112° 29' 59" E.

YMMM/R862B Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits FL280-FL950 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
22° 39' 16" S 111° 26' 00" E, thence the minor arc of a circle of 150NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 19° 52' 35" S 113° 10' 54" E, 20° 49' 14" S 113° 32' 34" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME to 22° 29' 33" S 112° 29' 59" E.

YMMM/R863A Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM-FL280 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
22° 29' 33" S 112° 29' 59" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 23° 38' 56" S 113° 32' 16" E, 24° 35' 26" S 113° 09' 38" E, thence the minor arc of a circle of 150NM radius centred on Learmonth DME to 22° 39' 16" S 111° 26' 00" E.

YMMM/R863B Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits FL280-FL950 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
22° 29' 33" S 112° 29' 59" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 23° 38' 56" S 113° 32' 16" E, 24° 35' 26" S 113° 09' 38" E, thence the minor arc of a circle of 150NM radius centred on Learmonth DME to 22° 39' 16" S 111° 26' 00" E.

YMMM/R864A Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM-FL280 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
23° 38' 56" S 113° 32' 16" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 22° 29' 33" S 112° 29' 59" E, 22° 21' 08" S 113° 23' 11" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 22° 51' 49" S 113° 50' 54" E.

YMMM/R864B Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits FL280-FL950 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
23° 38' 56" S 113° 32' 16" E, thence the minor arc of a circle of 90NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 22° 29' 33" S 112° 29' 59" E, 22° 21' 08" S 113° 23' 11" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME to 22° 51' 49" S 113° 50' 54" E.

YMMM/R870A Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM-FL250 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
22° 10' 43" S 113° 59' 06" E, thence along Line Road to 22° 14' 09" S 113° 58' 01" E, 22° 28' 39" S 114° 01' 32" E thence the minor arc of a circle of 15NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E), to 22° 06' 41" S 113° 51' 35" E.

YMMM/R870B Learmonth
Nature of Activity Military flying *Controlling Authority* FLTCDR 452SQN Darwin Flt
Vertical Limits NOTAM-FL250 *Times of Use* NOTAM
Chart Aus 4725 *Chartlet* 8
22° 06' 41" S 113° 51' 35" E, thence the minor arc of a circle of 15NM radius centred on Learmonth DME (22° 14' 05" S 114° 05' 38" E) to 22° 28' 55" S 114° 02' 50" E, 22° 53' 37" S 113° 58' 10" E, thence the minor arc of a circle of 40NM radius centred on Learmonth DME, to 21° 54' 07" S 113° 28' 18" E.

SOUTH AUSTRALIA

YMMM/R231 Adelaide
Nature of Activity Military flying *Controlling Authority* FLTCDR 453SQN Edinburgh Flt
Vertical Limits SFC-2500 *Times of Use* HJ JO OT by NOTAM
Chart Aus 781 *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/R252 Alamein
Nature of Activity Military flying/non-flying *Controlling Authority* Army DOTAM SA
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 778 *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° 54' 06" S 137° 48' 34" E (f) 32° 58' 24" S 137° 42' 43" E
(g) 32° 53' 28" S 137° 36' 53" E.

YMMM/R254 North East Rock
Nature of Activity Military flying/non-flying *Controlling Authority* FLTCDR 453SQN Edinburgh Flt
Vertical Limits NOTAM-FL200 *Times of Use* NOTAM
Chart Aus 776 *Chartlet* 10
35° 07' 00" S 136° 21' 43" E, thence the major arc of a circle of 7 NM radius centred on 35° 04' 30" S 136° 29' 40" E, to 35° 07' 00" S 136° 37' 37" E.

YMMM/R279 Edinburgh
Nature of Activity Military flying/non-flying *Controlling Authority* FLTCDR 453SQN Edinburgh Flt
Vertical Limits SFC-FL250 *Times of Use* NOTAM
Chart Aus 780 & 781 *Chartlet* 10
35° 18' 08" S 136° 52' 48" E, thence N along the coast of Yorke Peninsula, to 34° 58' 12" S 137° 46' 05" E, 34° 57' 38" S 138° 03' 31" E, thence the minor arc of a circle of 23 NM radius centred on Adelaide DME (34° 56' 49" S 138° 31' 28" E), to 35° 05' 02" S 138° 05' 19" E, 35° 35' 27" S 137° 23' 33" E, thence W along the N coast of Kangaroo Island, to 35° 43' 19" S 136° 43' 13" E, thence the minor arc of a circle of 100 NM radius centred on Adelaide DME, to 35° 21' 44" S 136° 33' 21" E.

YMMM/R282 Adelaide
Nature of Activity Military flying/non-flying *Controlling Authority* FLTCDR 453SQN Edinburgh Flt
Vertical Limits SFC-FL600 *Times of Use* NOTAM
Chart Aus 347 *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 TAC (34° 42' 17" S 138° 36' 45" E), to 37° 03' 57" S 139° 38' 12" E, 35° 54' 48" S 139° 07' 39" E, 35° 42' 02" S 138° 57' 43" E, thence the minor arc of a circle of 50 NM radius centred on Adelaide DME (34° 56' 49" S 138° 31' 28" E), to 35° 45' 40" S 138° 18' 03" E.

YMMM/R292A Port Wakefield
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Port Wakefield
Vertical Limits SFC-8 500 *Times of Use* H24
Chart Aus 781 *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/R292B Port Wakefield
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Port Wakefield
Vertical Limits 8 500-NOTAM *Times of Use* NOTAM
Chart Aus 781 *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/R292C Port Wakefield
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Port Wakefield
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 781 *Chartlet* 10
(a) 34° 25' 47" S 138° 15' 27" E (b) 34° 29' 30" S 138° 16' 30" E (c) 34° 29' 30" S 138° 08' 30" E
(d) 34° 27' 06" S 138° 08' 30" E (e) 34° 27' 15" S 138° 13' 29" E.

YMMM/R292D Port Wakefield
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Port Wakefield
Vertical Limits NOTAM *Times of Use* NOTAM
Chart Aus 781 *Chartlet* 10
(a) 34° 29' 30" S 138° 16' 30" E (b) 34° 34' 00" S 138° 18' 00" E (c) 34° 34' 00" S 138° 08' 30" E
(d) 34° 29' 30" S 138° 08' 30" E.

YMMM/R292E Port Wakefield
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Port Wakefield
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 781 *Chartlet* 10
(a) 34° 24' 00" S 138° 03' 30" E (b) 34° 13' 30" S 138° 03' 30" E (c) 34° 13' 30" S 138° 08' 30" E
(d) 34° 24' 00" S 138° 08' 30" E.

YMMM/R292F Port Wakefield
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Port Wakefield
Vertical Limits SFC-NOTAM *Times of Use* NOTAM
Chart Aus 781 *Chartlet* 10
(a) 34° 24' 00" S 138° 03' 30" E (b) 34° 29' 27" S 138° 03' 30" E (c) 34° 34' 00" S 138° 06' 30" E
(d) 34° 34' 00" S 138° 08' 30" E (e) 34° 24' 00" S 138° 08' 30" E.

VICTORIA AND TASMANIA

YMMM/R323A Western Port
Nature of Activity Military flying/non-flying *Controlling Authority* Navy HMAS Cerberus
Vertical Limits SFC-9 000 *Times of Use* NOTAM
Chart Aus 788 and Aus 801 *Chartlet* 11
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.

YMMM/R323B Western Port
Nature of Activity Military flying/non-flying *Controlling Authority* Navy HMAS Cerberus
Vertical Limits SFC-FL550 *Times of Use* NOTAM
Chart Aus 788 and Aus 801 *Chartlet* 11
(a) 38° 29' 07" S 145° 02' 00" E (b) 38° 28' 55" S 145° 01' 35" E (c) 38° 32' 23" S 144° 41' 41" 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.

YMMM/R332 Hanns Inlet
Nature of Activity Military non-flying *Controlling Authority* Navy HMAS Cerberus
Vertical Limits SFC-2 000 *Times of Use* D2100-1300 EXPH (1 Hr earlier HDS) OT NOTAM
Chart Aus 152 *Chartlet* 11
A circle of 1.5 NM radius centred on 38° 22' 48" S 145° 12' 00" E.

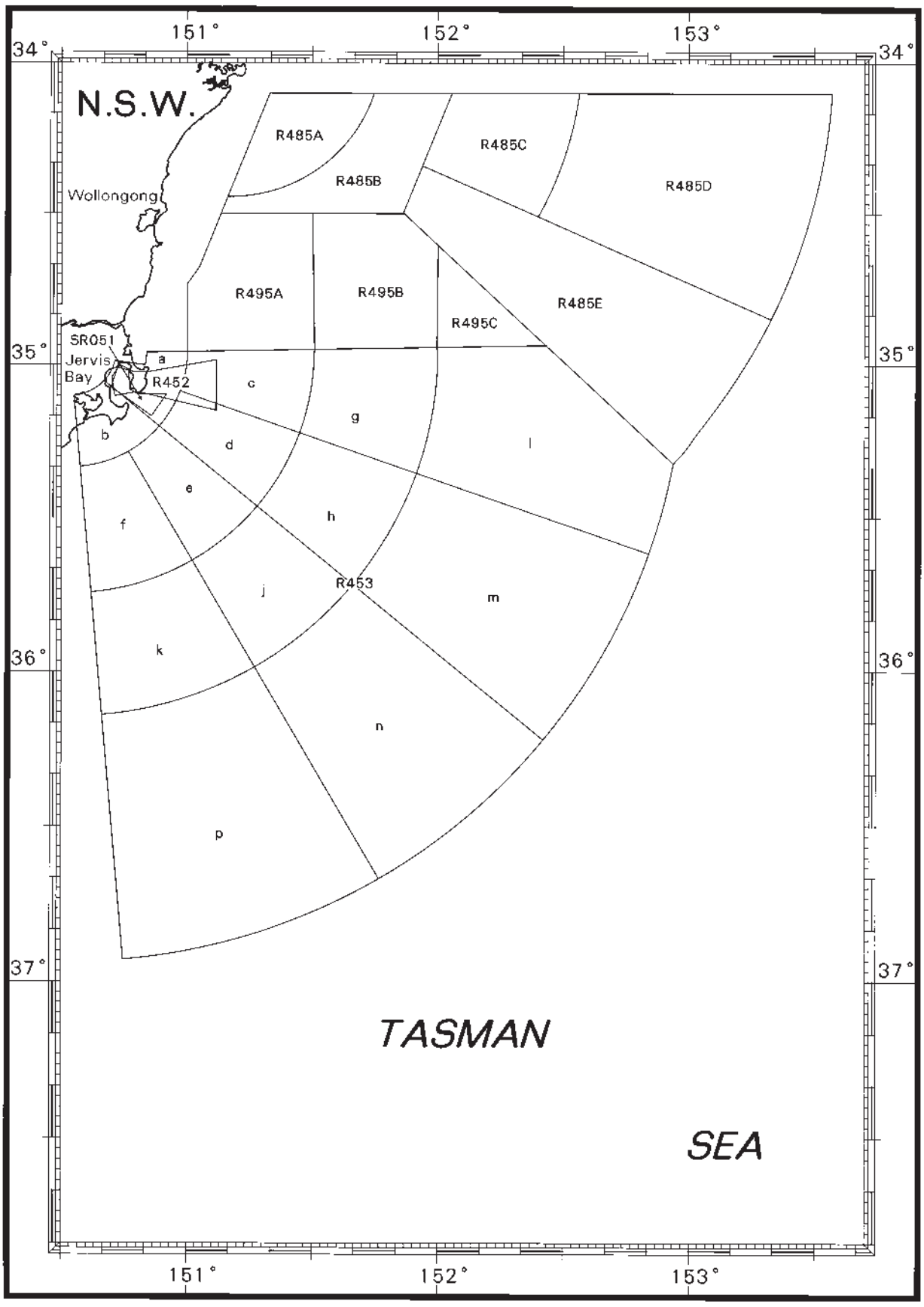
YMMM/R339 Cape Schanck
Nature of Activity Military flying/non-flying *Controlling Authority* Navy HMAS Cerberus
Vertical Limits NOTAM-FL550 *Times of Use* NOTAM
Chart Aus 788 and Aus 801 *Chartlet* 11
(a) 38° 51' 00" S 144° 21' 00" E (b) 38° 38' 00" S 144° 41' 00" E (c) 38° 36' 16" S 144° 43' 28" E
thence 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 Military non-flying *Controlling Authority* Army DOTAM VIC/TAS
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.

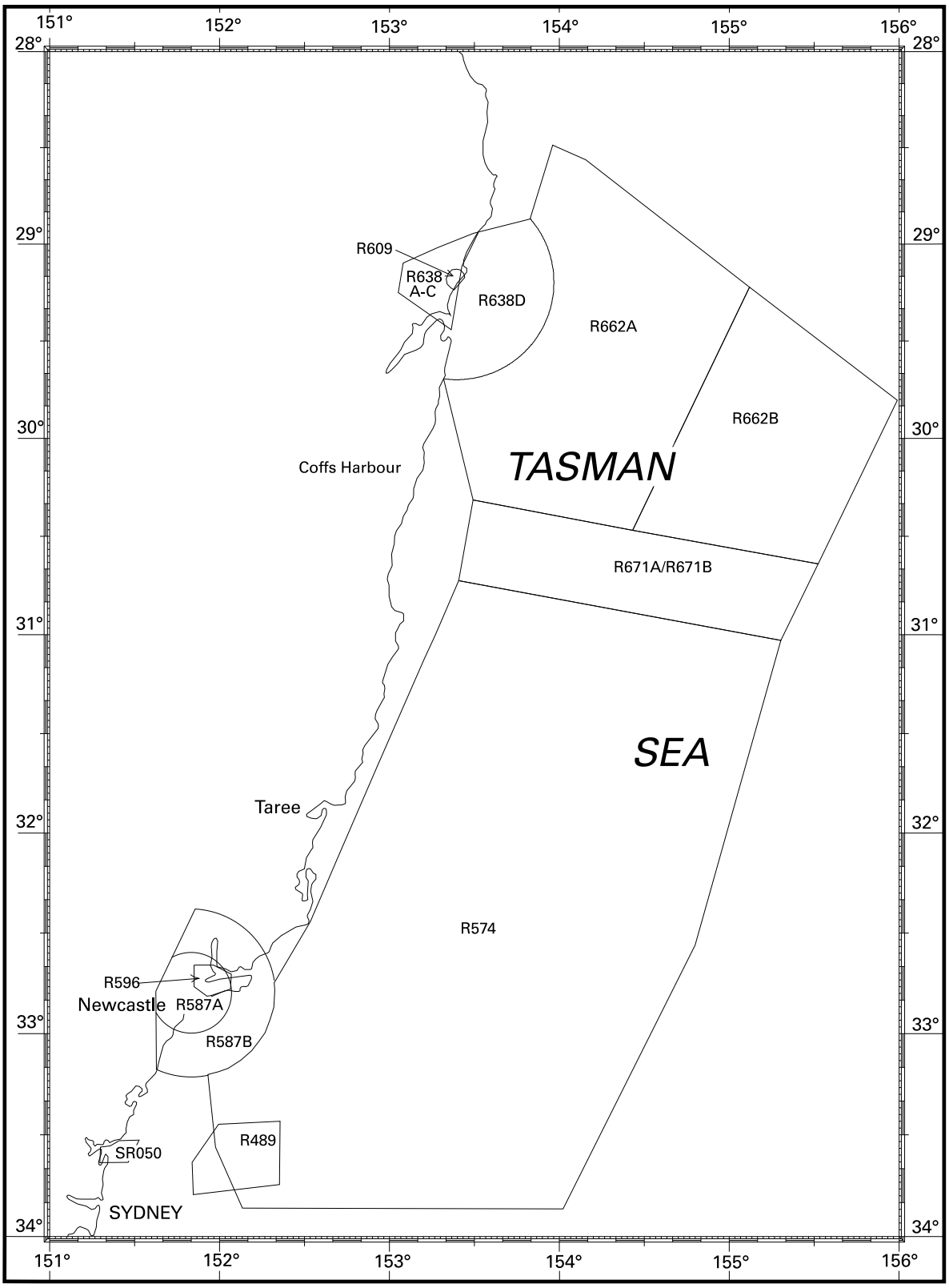
YMMM/R362B Stony Head
Nature of Activity Military non-flying *Controlling Authority* Army DOTAM VIC/TAS
Vertical Limits 3 500-NOTAM *Times of Use* NOTAM
Chart Aus 798 *Chartlet* 11
(a) 41° 03' 10" S 146° 56' 25" E (b) 41° 01' 44" S 146° 55' 54" E thence along the coast to
(c) 41° 00' 01" S 147° 04' 50" E (d) 41° 03' 54" S 147° 04' 06" E.

YMMM/R374 Swan Island
Nature of Activity Military flying/non-flying *Controlling Authority* Army RCO Swan Island
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.

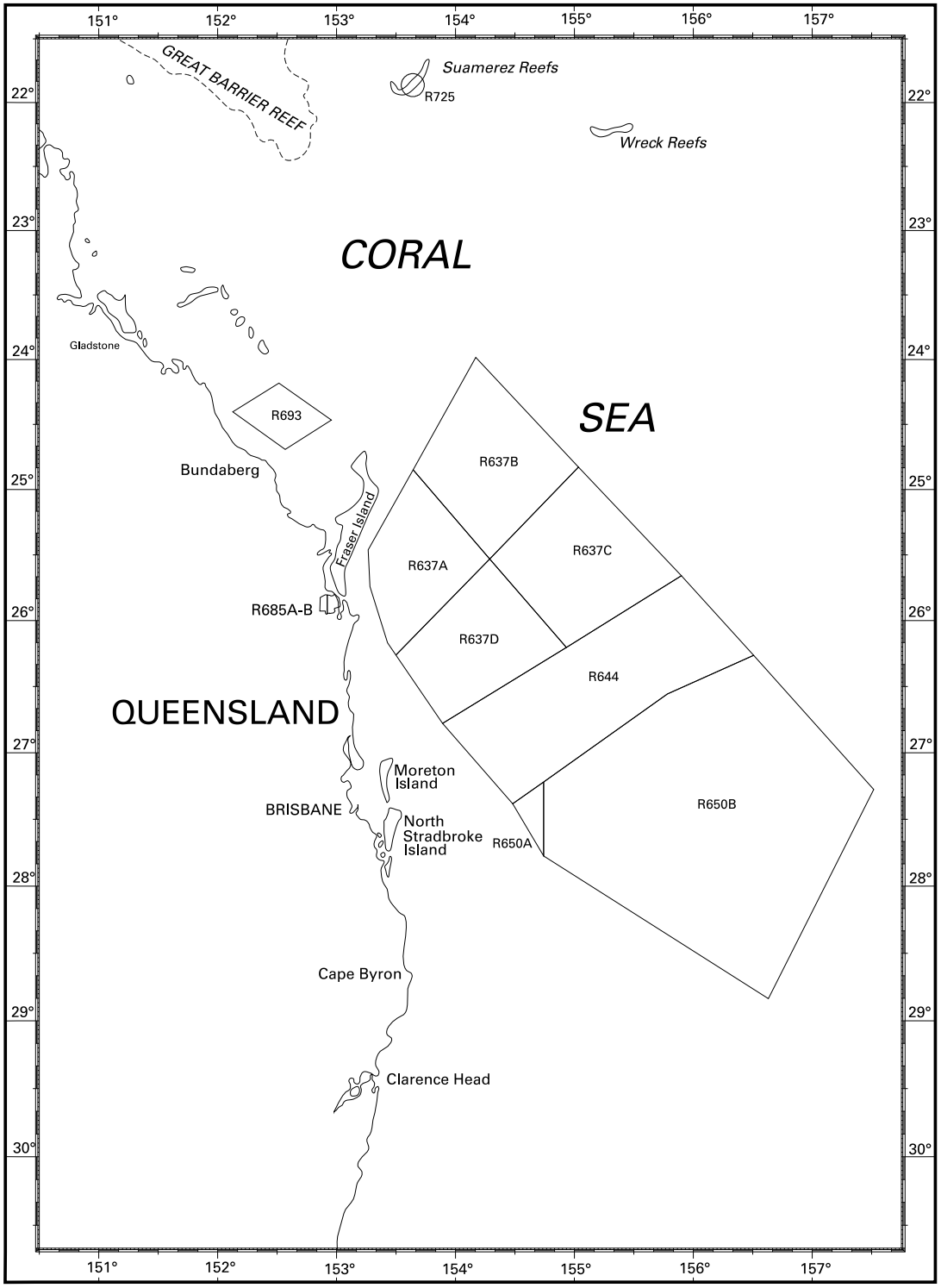
Tasman Sea - Jervis Bay



Tasman Sea - Newcastle

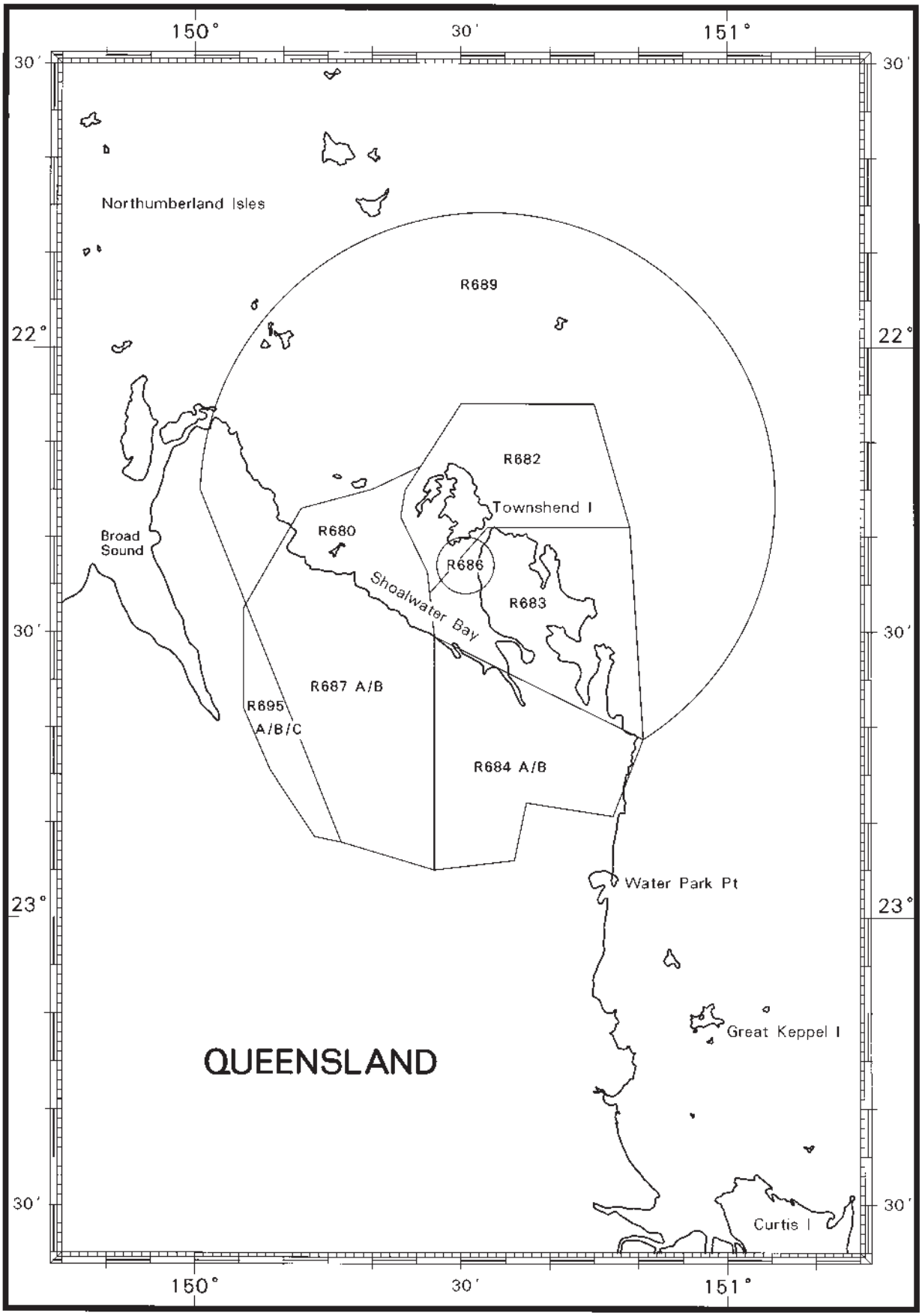


Queensland South – Coral Sea

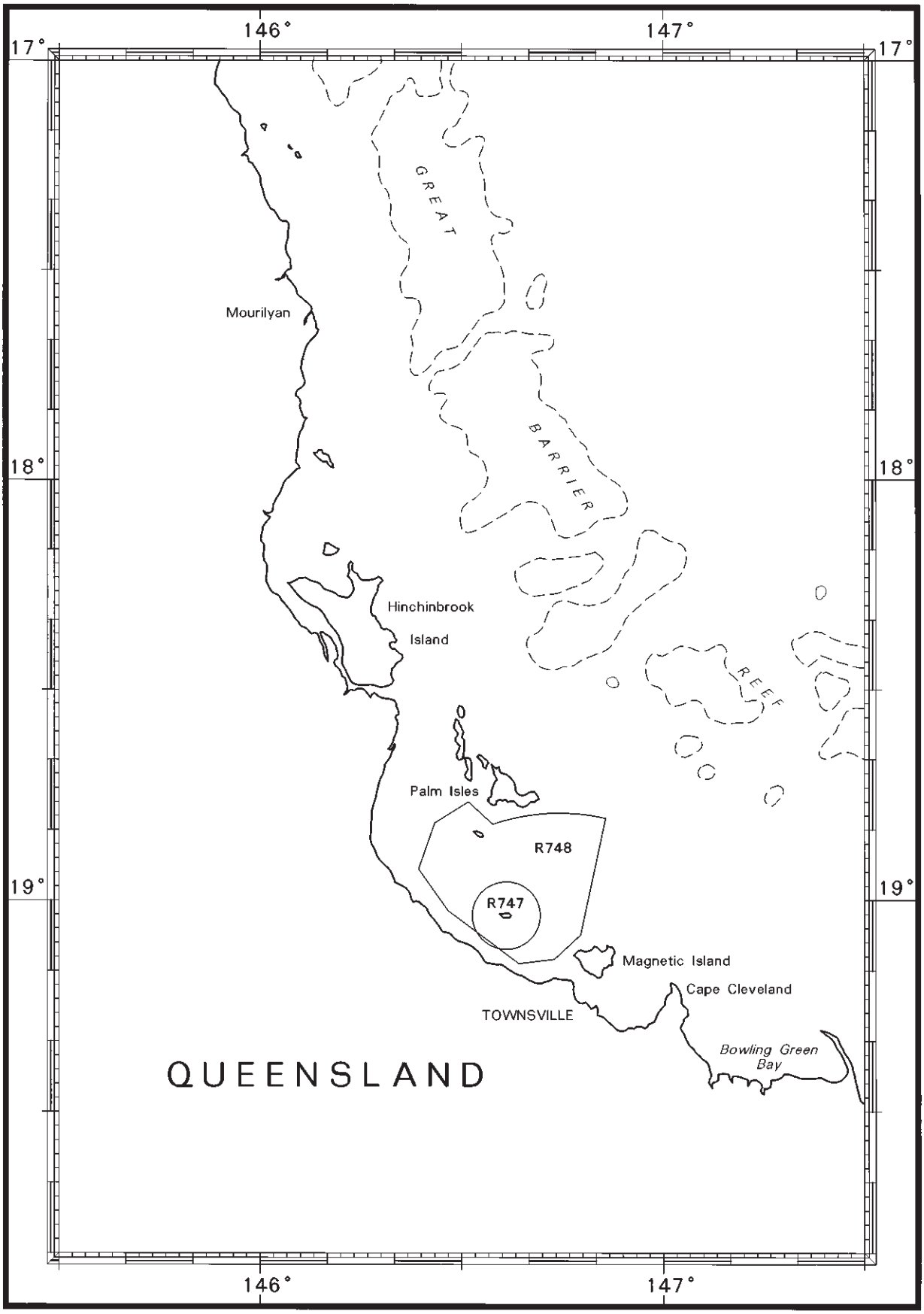


3

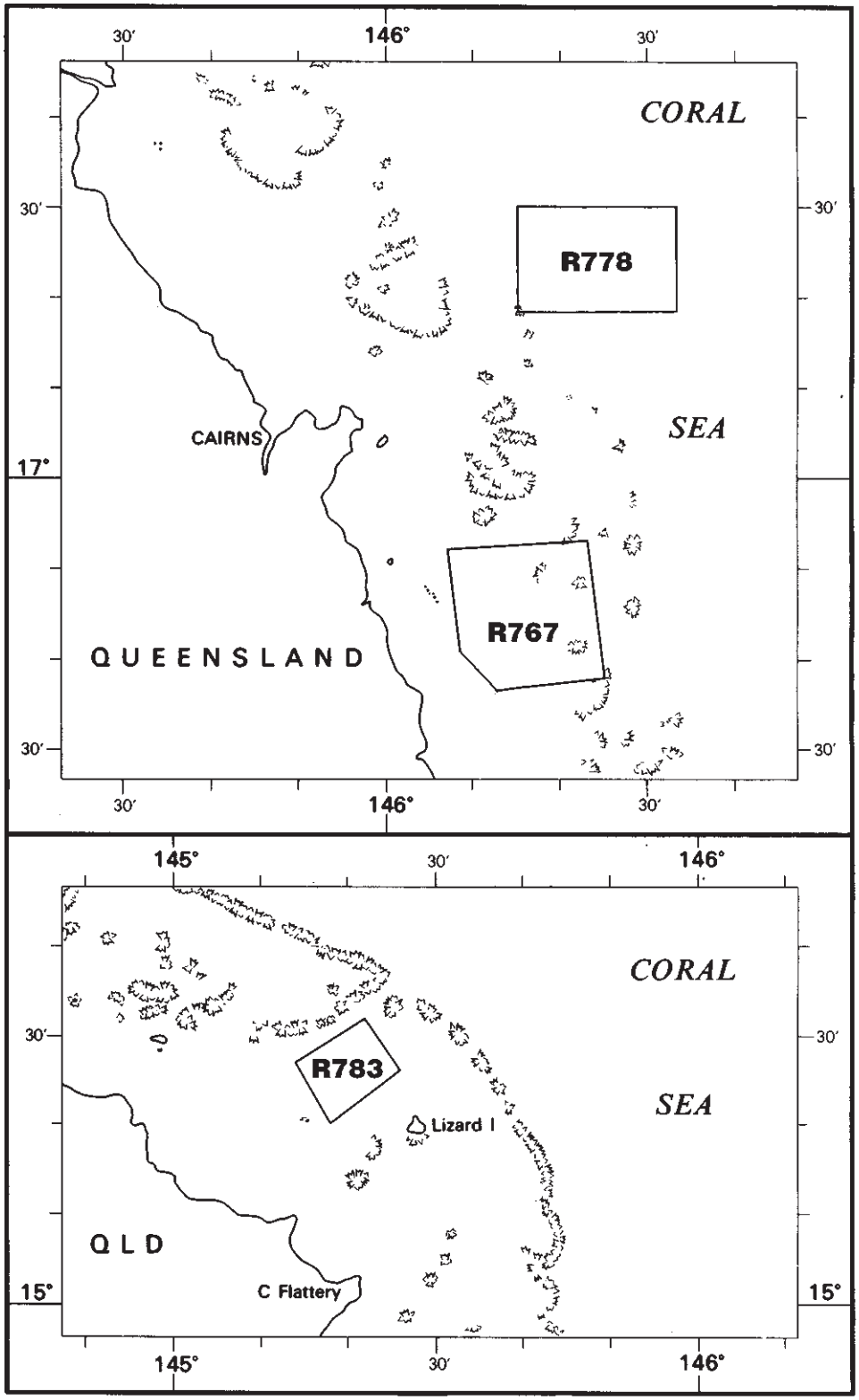
Shoalwater Bay



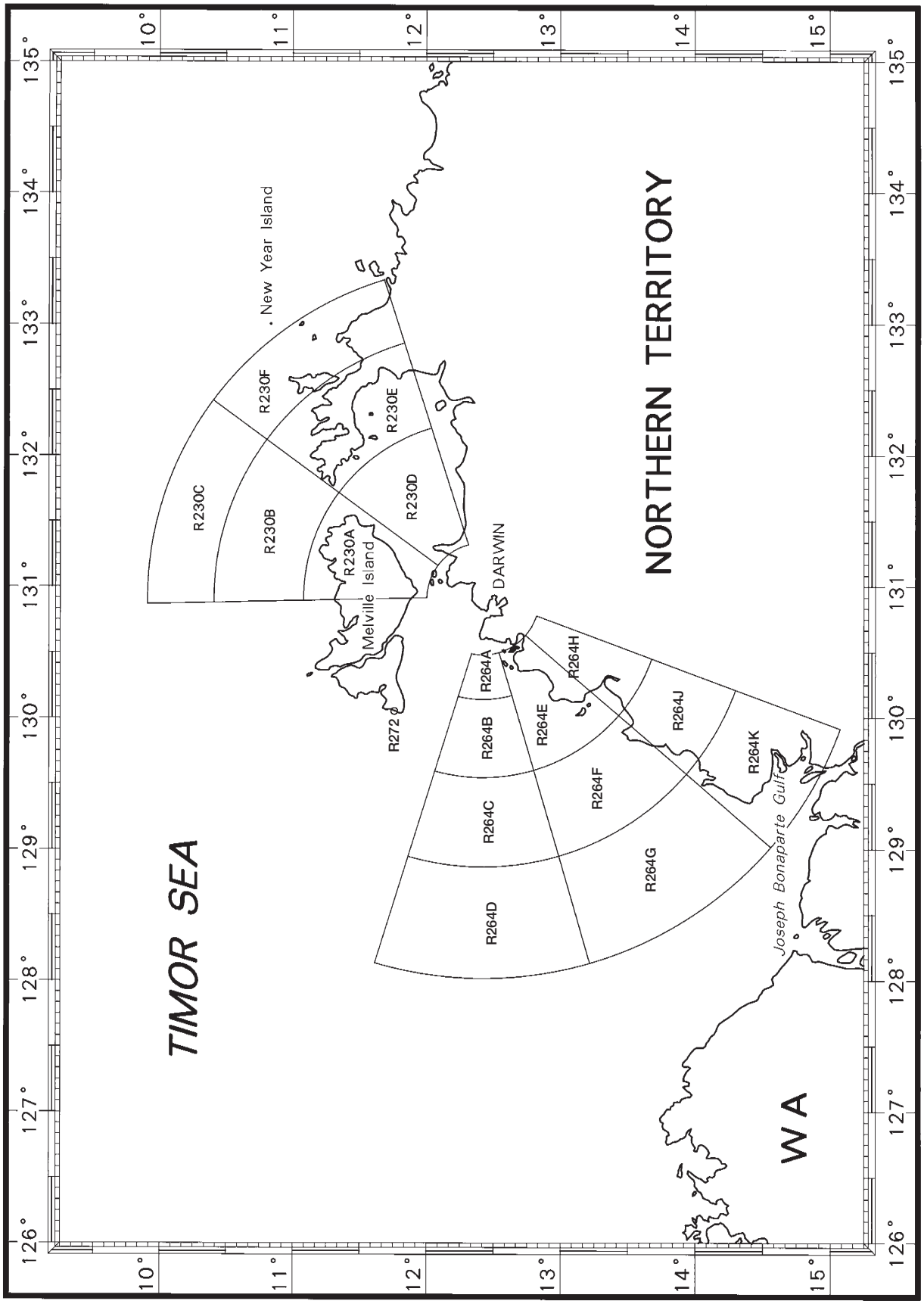
Townsville


146°
147°
17°
18°
19°
GREAT
BARRIER
REEF
Mourilyan
Hinchinbrook
Island
Palm Isles
R748
R747
Magnetic Island
Cape Cleveland
TOWNSVILLE
Bowling Green
Bay
QUEENSLAND

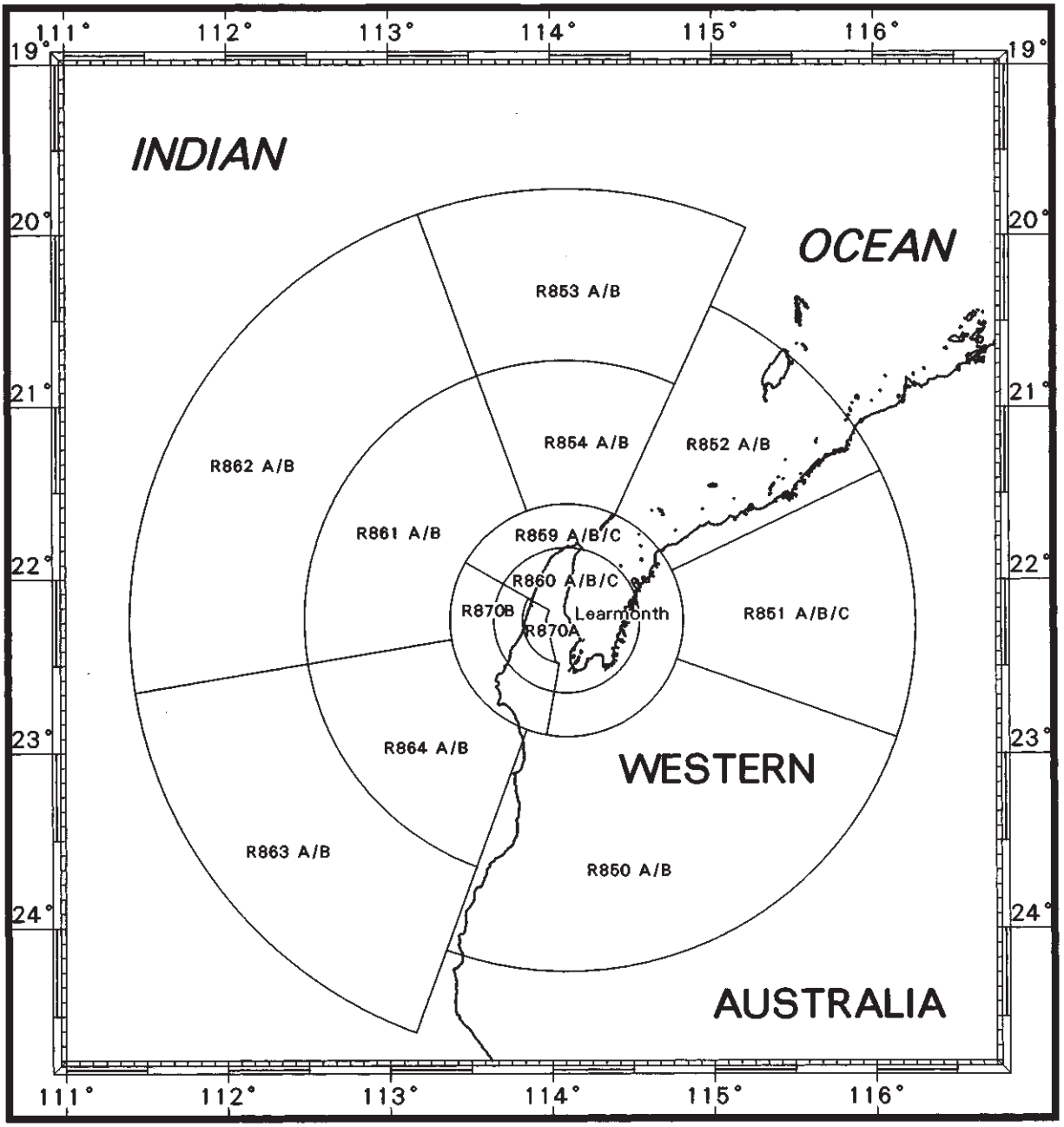
Queensland North - Coral Sea



Northern Territory

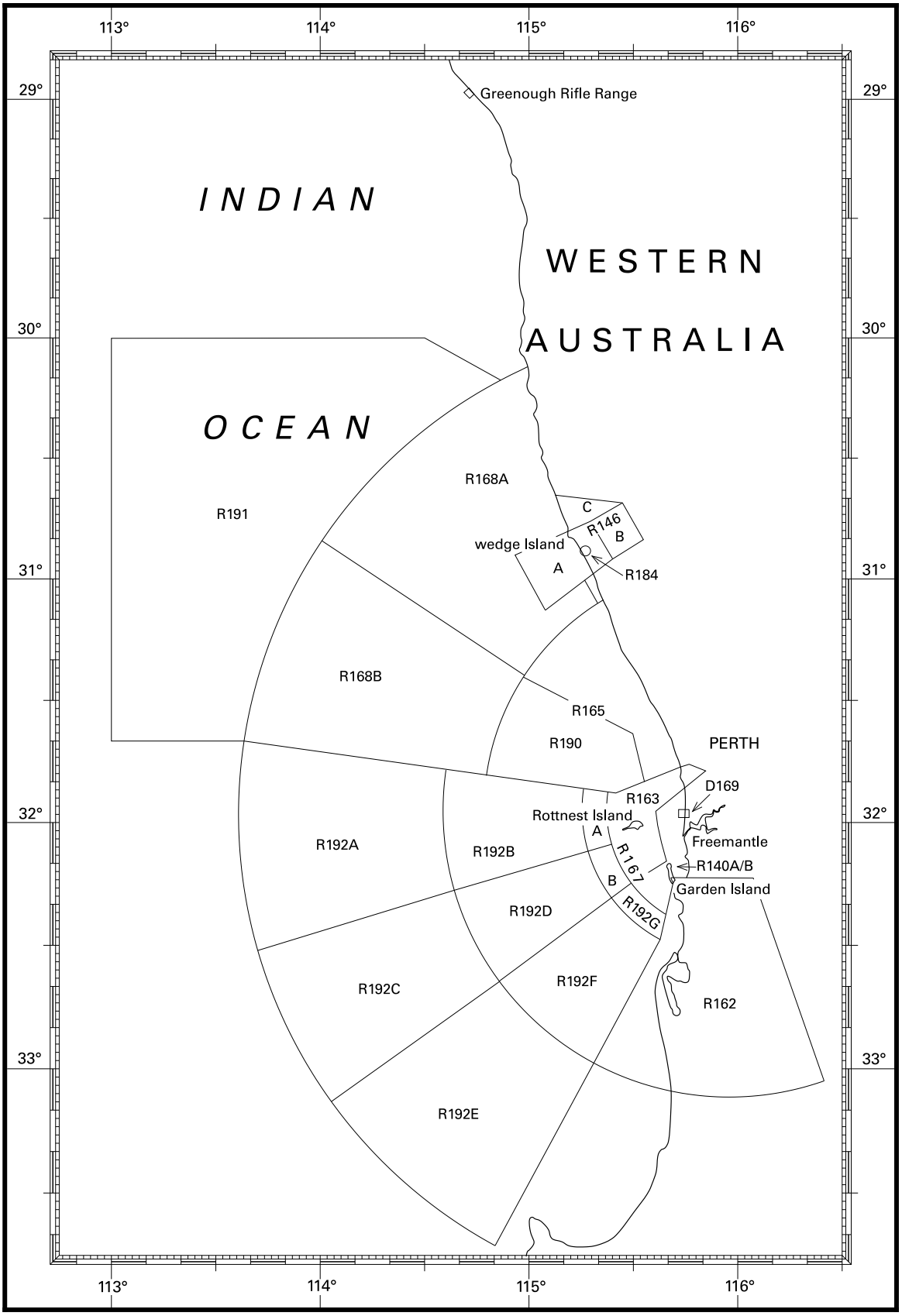


North West Cape

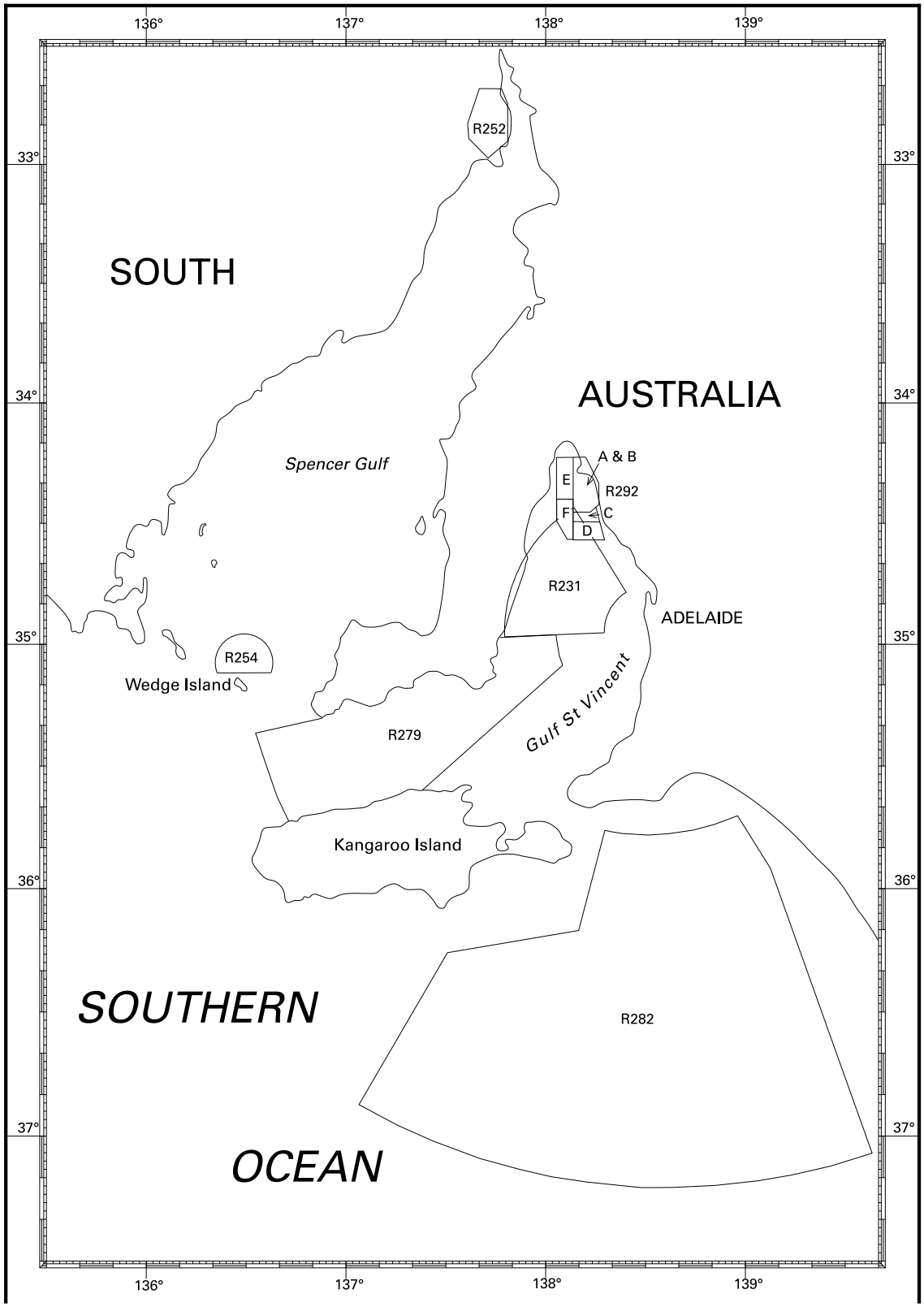


8

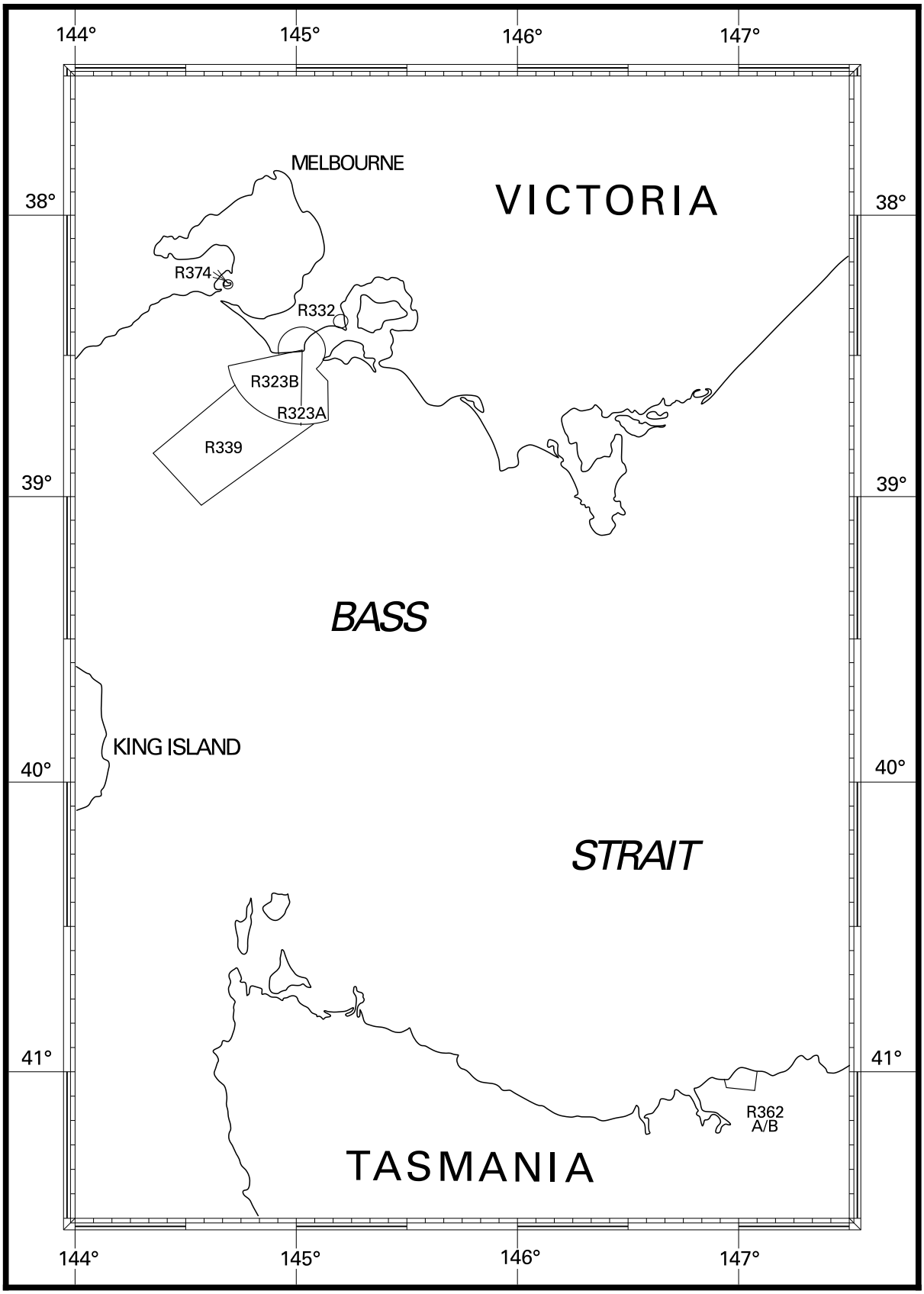
Western Australia - South West



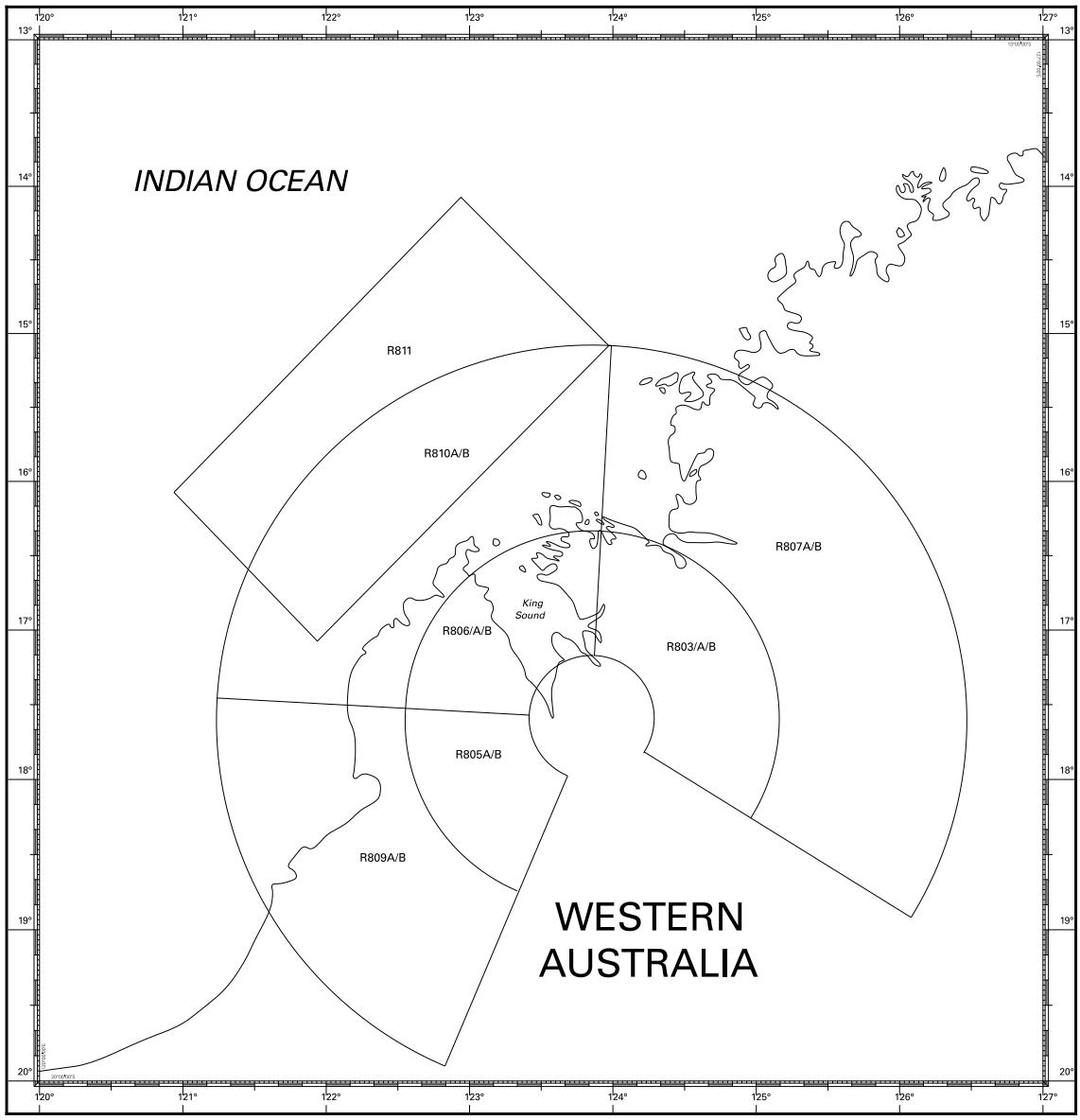
South Australia



Bass Strait - Victoria Tasmania



Western Australia



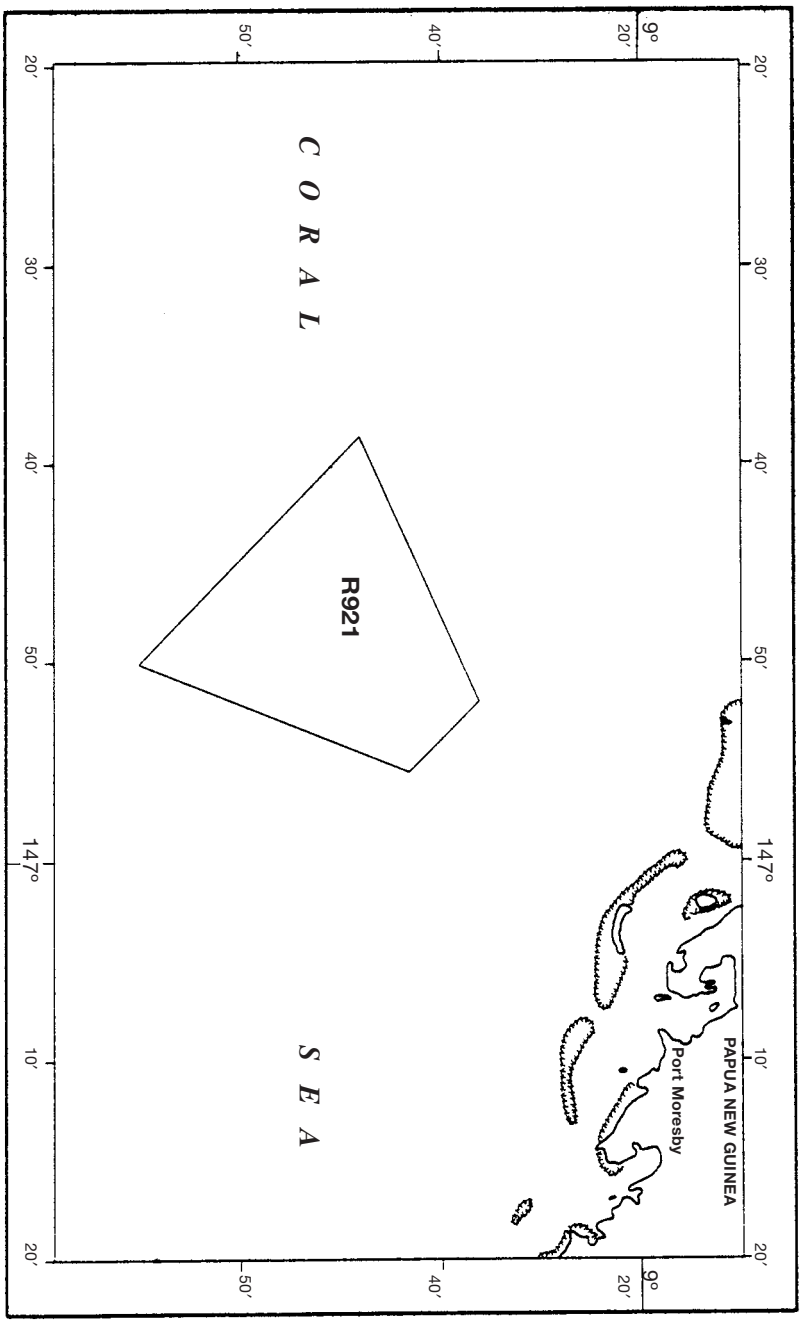
12

Airservices Australia. *(AA713806)*

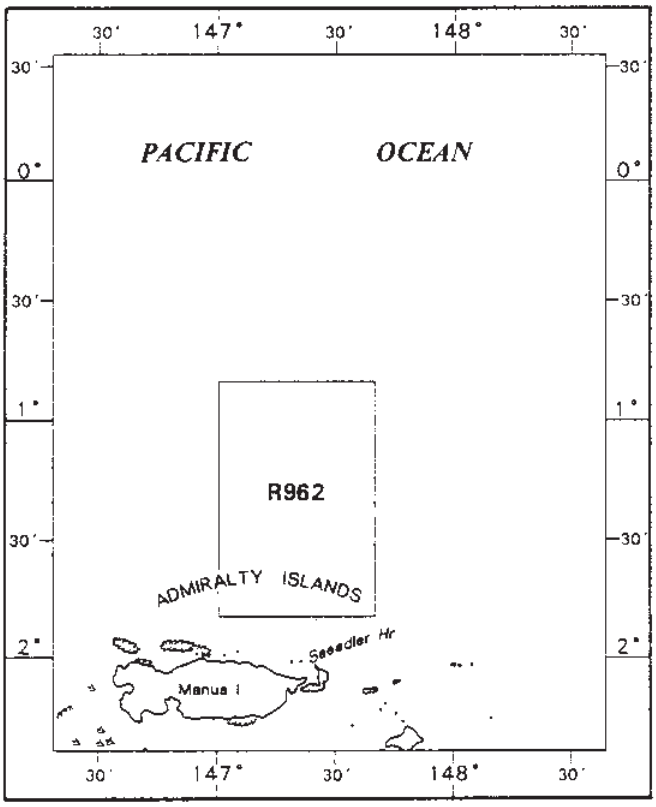
9A. RESTRICTED AND DANGER AREAS WITH ASSOCIATED AIRSPACE
PAPUA NEW GUINEA

AY/R921 Port Moresby
Nature of Activity Gunnery
Controlling Authority Department of Defence
Vertical Limits SFC-FL200
Times of Use NOTAM
Chart Aus 505
Chartlet 1
(a) 9° 38' 00" S 146° 52' 00" E (b) 9° 41' 30" S 146° 55' 30" E (c) 9° 55' 00" S 146° 50' 00" E
(d) 9° 44' 00" S 146° 38' 30" E.

AY/R962 Admiralty Islands
Nature of Activity Gunnery and weapons
Controlling Authority Department of Defence
Vertical Limits SFC-FL200
Times of Use NOTAM
Chart Aus 462
Chartlet 2
(a) 0° 47' 00" S 147° 00' 00" E (b) 0° 47' 00" S 147° 40' 00" E (c) 1° 47' 00" S 147° 40' 00" E
(d) 1° 47' 00" S 147° 00' 00" E.



1



2

Australian Hydrographic Service. *(AH 99/0517, 0518)*

10A. DIFFERENTIAL GPS.

1. The Australian Maritime Safety Authority (AMSA) operates sixteen Differential Global Positioning System (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 (285-325 kHz in the Australian region).

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

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

5. The locations and frequencies of the AMSA DGPSstations are:

Site	*Ref Stn 1Position (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
Corny Point (SA)	34° 53.97' S 137° 00.88' E	316 kHz
Crib Point (VIC)	38° 21.61' S 145° 10.19' E	314 kHz
Darwin (NT)	12° 26.72' S 130° 57.51' E	294 kHz
Exmouth (WA)	21° 53.05' S 114° 08.04' E	297 kHz
Gladstone (QLD)	24° 02.21' S 151° 21.53' E	313 kHz
Horn Island (QLD)	10° 35.52' S 142° 16.48' E	320 kHz
Ingham (QLD)	18° 33.34' S 146° 18.35' E	306 kHz
Karratha (WA)	20° 42.41' S 116° 46.44' E	304 kHz
Mackay (QLD)	21° 06.19' S 149° 12.68' E	315 kHz
Mallacoota (VIC)	37° 34.09' S 149° 44.16' E	318 kHz
Perth (WA)	31° 47.88' S 115° 56.01' E	306 kHz
Sydney (NSW)	33° 59.18' S 150° 58.67' E	308 kHz
Weipa (QLD)	12° 39.21' S 141° 51.61' E	316 kHz

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

(a) a GPS receiver with the capability of processing DGPS data fed to it in accordance with the RTCM standards, and a DGPS radio beacon receiver, which receives the data from the DGPS broadcasting station, demodulates the received data, and converts it into a form suitable for feeding to the GPS receiver; or

(b) a differential GPS receiver that includes the radio beacon receiver within the unit (an all-in-one receiver).

7. Further information may be obtained from:

Aids to Navigation
Navigation Safety and International Division,
AMSA
GPO Box 2181
Canberra ACT 2601
Telephone +61 (0)2 6279 5927
Fax +61 (0)2 6279 5966

Australian Maritime Safety Authority, Canberra. *(AA713805)*

10B. RADAR BEACONS (RACONS)

1. Transmitting RACONs are located around the Australian coast as listed in the table below:

Place	*Ident*	*Band (Hz)*	*Range (NM)*	*Elev (m)*	*Position (WGS 84)*
Northern Territory					
*Cape Wessel	Y	9GHz 3GHz	20-27 23-27	55	11° 00'.28 S 136° 45'.57 E
Western Australia and Indian Ocean					
*Adele Island	C	9GHz 3GHz	16-23 20-25	34	15° 30'.62 S 123° 09'.46 E
Angel Production Platform	X				19° 29'.92 S 116° 35'.88 E
Bayu-Undan Floating Production Facility	K				11° 02'.97 S 126° 37'.08 E
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	N				21° 28'.82 S 114° 00'.51 E
Fremantle Fairway Landfall Buoy	V	9GHz 3GHz			31° 57'.13 S 115° 38'.81 E
Geraldton Fairway Buoy	G	9GHz 3GHz			28° 46'.19 S 114° 31'.72 E
*Imperieuse Reef	Q	9GHz 3GHz	16-23 20-25	32	17° 31'.00 S 118° 56'.92 E
*Lacrosse Island	M	9GHz 3GHz	27-33 30-35	114	14° 44'.28 S 128° 17'.82 E
*North Island	N	9GHz 3GHz	11-18 14-19	9	28° 17'.88 S 113° 35'.38 E
*Pelsaert Island	X	9GHz 3GHz	14-21 17-23	22	28° 59'.13 S 113° 57'.74 E
*Port Hedland C1 Beacon	G	9GHz 3GHz	11-18 14-19	9	19° 59'.54 S 118° 26'.10 E
*Port Walcott C1 Buoy	K	9GHz 3GHz	10-17 13-18	7	20° 23'. S 117° 25'.60 E
*Shoal Point	O	9GHz 3GHz	27-34 30-35	116	28° 03'.45 S 114° 12'.64 E
South Australia					
*Middle Bank South	M	9GHz 3GHz	11-17 9-15	11	33° 43'.99 S 137° 29'.81 E
*Robe	G	9GHz 3GHz	21-28 25-30	65	37° 09'.86 S 139° 44'.67 E
*South Neptunes Island	B	9GHz 3GHz	18-25 22-27	44	35° 20'.28 S 136° 07'.04 E
*South Page	O	9GHz 3GHz	11-18 14-19	9	35° 46'.65 S 138° 17'.48 E
*Troubridge Hill	K	9GHz 3GHz	21-28 24-29	63	35° 09'.96 S 137° 38'.44 E
Victoria					
Fawkner Light Beacon	F	9GHz 3GHz			37° 56'.93 S 144° 55'.61 E
*Flounder A Platform	Q	9GHz 3GHz	15-22 19-24	28	38° 18'.65 S 148° 26'.36 E
*Gabo Island	G	9GHz 3GHz	20-27 23-28	55	37° 34'.04 S 149° 55'.01 E
*Kingfish B Platform	B	9GHz 3GHz	16-23 20-25	34	38° 35'.82 S 148° 11'.28 E
Prince George Light Beacon	G	9GHz 3GHz			38° 06'.41 S 144° 44'.20 E
Western Port Fairway Buoy	Y				38° 30'.21 S 145° 05'.36 E
Tasmania					
*Maatsuyker Island	M	9GHz 3GHz	29-36 32-38	140	43° 39'.34 S 146° 16'.40 E

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

* Racons operated by AMSA

2. Radar beacons (RACONs) are indicated on a radar Plan Position Indicator (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.

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

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

Where:

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

Assumed heights for ships' radar antennas are:

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

4. 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.

5. 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.

6. 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.

7.. 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.

8. 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. *(AA713805)*

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:

Name and Identification	*Position (WGS 84)*	*Hours of Operation*
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.

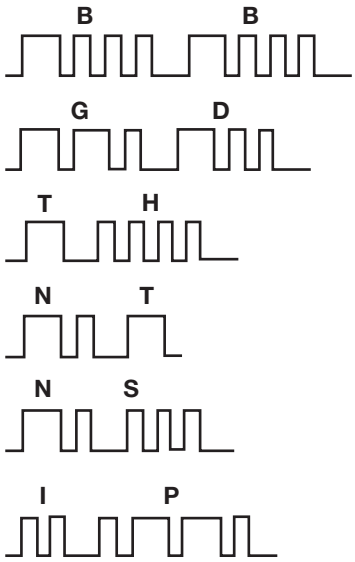
6. All broadcasts are made from a radio transmitter at Hammond Hill (hill 152, which is 0·5 nautical miles southeast of Turtle Head Lighthouse). The nominal range is 24 nautical miles. Where line of sight to Hammond Hill is obscured reception may be lost.

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 Patches (tidal height)	NT
Nardana Patches(tidal stream)	NS
Ince Point	IP

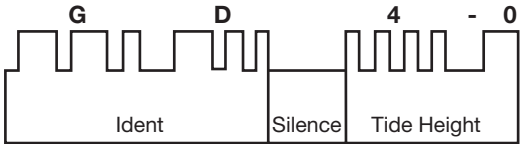
9. Examples of the format of the tide height broadcasts are as follows:



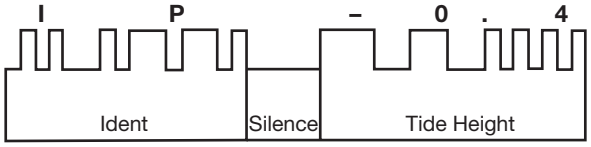

= Dash


= Dot

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 Patches 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 080º true. Westerly flow is in the general direction of 260º true.

Australian Maritime Safety Authority, Canberra. *(AA713805)*

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11. HYDROGRAPHIC NOTES

1. Reports conveying information that could be useful to mariners generally, are always welcome in the Australian Hydrographic Service (AHS). Such information will be used to improve existing charts sailing directions and other navigational publications not only in the Area of Australian Charting Responsibility, but worldwide. The Area of Australian Charting Responsibility includes the waters around Australia and its territories as well as those around Papua New Guinea, see *Notice to Mariners No 1.*

2. The type of information most needed concerns safe routes through poorly surveyed waters (with courses and depths where available - see *Seafarers Handbook For Australian Waters AHP20),* anchorages, harbour facilities, conspicuous objects, navigational aids, obstructions and other dangers that are not correctly or fully charted or described on the charts or in the Sailing Directions.

3. When reports are received in the AHS, 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 (AH 102) of which a blank copy, as a printed form, can be found on the AHS website (www.hydro.gov.au). Alternatively, a webform can be used at http://www.hydro.gov.au/feedback/feedback-hydronote.htm. Sketches, maps, diagrams, photographic views (see *Seafarers Handbook For Australian Waters AHP20*), newspaper cuttings etc, when attached to reports can be very useful.

5. Without making the task too arduous reports should include copies of the original observations on which a report is founded, with times courses and speeds bearings radar distances or measured depths rather than merely the derived latitudes and longitudes or reduced depths.

6. Most reports record what someone has seen or done. The report should include the name and address of that person, together with the mariner's comments on its known or assumed reliability, so that enquiries can be made when checking against other sources.

7. Mariners who send charts with their reports should ask for replacements to be sent to them, if required.

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

Hydrographer of Australia
Locked Bag 8801
Wollongong
NSW 2521

or
email Hydro.NTM@defence.gov.au

or
web site www.hydro.gov.au (http://www/hydro.gov.au/feedback/feedback-hydronote.htm)

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)*

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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 it 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 S161° 20'.0 E), thence in a direction 139° - 3.95 miles, thence in a direction 228° - 0.8 miles, thence in a direction 319° - 3.75 miles, thence to (a).

Areas Dangerous due to Unexploded Ordnance

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

New South Wales-				
Wreck Bay	Aus 807	35° 15’ 30”.0 S 150° 38’ 00”.0 E	0.5	45
Wreck Bay	Aus 807	35° 15’ 13”.0 S 150° 41’ 20”.0 E	0.5	75
Wreck Bay	Aus 807	35° 12’ 00”.0 S 150° 38’ 00”.0 E	0.5	20
Jervis Bay	Aus 193	35° 06’ 41”.0 S 150° 48’ 07”.0 E	0.5	33
Shoalhaven Bight	Aus 808	34° 53’ 12”.0 S 150° 57’ 48”.0 E	0.5	90
Shoalhaven Bight	Aus 808	34° 52’ 00”.0 S 150° 58’ 00”.0 E	0.5	88
Shoalhaven Bight	Aus 808	34° 50’ 00”.0 S 150° 59’ 00”.0 E	0.5	100
Tom Thumb Islands	Aus 194	34° 27’ 37”.0 S 150° 55’ 48”.0 E	0.3	7
NE of Bulli	Aus 808	34° 18’ 00”.0 S 151° 03’ 00”.0 E	0.5	42
E of Wattamolla	Aus 808	34° 10’ 00”.0 S 151° 15’ 00”.0 E	0.5	120
Port Jackson	Aus 201	33° 50’ 21”.8 S 151° 16’ 21”.7 E *	0.05	10
Port Jackson	Aus 201	33° 50’ 29”.3 S 151° 16’ 23”.2 E *	0.05	10
Port Jackson	Aus 201	33° 50’ 52”.3 S 151° 16’ 19”.2 E *	0.05	10
Port Jackson	Aus 201	33° 50’ 56”.3 S 151° 16’ 17”.2 E *	0.05	10
E of Broken Bay	Aus 197	33° 34’ 45”.0 S 151° 27’ 33”.0 E	0.5	55
E of Bungan Head	Aus 197	33° 40’ 21”.0 S 151° 22’ 58”.0 E *	0.27	52
S of Newcastle	Aus 207	32° 59’ 10”.5 S 151° 48’ 47”.0 E	0.5	33
Queensland-				
Moreton Island	Aus 236	27° 02’ 00”.0 S 153° 29’ 30”.0 E	0.5	30
Moreton Island	Aus 236	27° 01’ 48”.0 S 153° 25’ 00”.0 E	0.5	3
Moreton Bay	Aus 236	27° 14’ 24”.0 S 153° 15’ 40”.0 E	0.25	13
NW Channel	Aus 235	26° 54’ 42”.0 S 153° 08’ 33”.0 E	0.5	10
Shoalwater Bay	Aus 822	22° 14’ 18”.0 S 150° 25’ 24”.0 E	1.0	15
Cleveland Bay	Aus 256	19° 10’ 18”.0 S 146° 55’ 00”.0 E	1.0	10
Fitzroy Island	Aus 830	16° 55’ 21”.0 S 145° 54’ 12”.0 E	0.25	7
N of Cape Grafton	Aus 830	16° 47’ 18”.0 S 145° 55’ 18”.0 E	0.25	30
N of Cape Grafton	Aus 830	16° 41’ 54”.0 S 145° 51’ 36”.0 E	0.25	33
Northern Territory-				
NW of Darwin	Aus 722	12° 21’ 48”.0 S 130° 46’ 29”.0 E	0.5	13
Papua New Guinea-				
Milne Bay	Aus 508	10° 21’ 03”.0 S 150° 21’ 20”.0 E	0.25	12
Milne Bay	Aus 508	10° 20’ 32”.0 S 150° 21’ 21”.0 E	0.25	12
Milne Bay	Aus 508	10° 20’ 14”.0 S 150° 21’ 40”.0 E	0.25	15
Blanche Bay	Aus 680	4° 14’ 48”.0 S 152° 12’ 30”.0 E	0.2	Var
Gazelle Harbour	Aus 399	6° 30’ 06”.0 S 155° 11’ 54”.0 E	0.6	Var

* Positions referred to WGS84

Australian Hydrographic Service. *(AH 99/0500)*

12A. DUMPING GROUNDS

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

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

Australian Hydrographic Service. *(AH 99/0174)*

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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)*

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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. Damaging or severing of an under-sea pipeline or cable could rate as a national disaster and very severe criminal penalties may apply. In addition the vessel which has fouled such an under water infrastructure could 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 and '(see Note)' 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. Disused cables will be shown with an interrupted wavy cable symbol.

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 by the owner of the cable.

6. In the event of any vessel fouling a submarine 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. No claim in respect of injury or damage sustained through such interference with a submarine pipeline will be entertained by the owner of the pipeline.

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)*

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15. OIL RIGS AND OFFSHORE STRUCTURES

General.

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

2. Safety Zones extending for a radius of up to 500 metres are gazetted around fixed installations and entry into these safety zones is prohibited to all except authorised vessels. A cautionary zone may extend up to 2.5 nautical miles.

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

4. Mariners are warned that drilling rigs may be moored within a ring of large anchor marked by buoys. This ring may exceed one nautical mile in diameter from the rig. The anchor buoys are unlit and may not provide 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. The shipping fairways in and around the north west coast between Point Cloates and Cape Leveque should also be noted.

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 nautical 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 in company with large support craft. Rig locations other than those listed in the latest *Section III Summary* are the subject of Radio Navigational Warnings. Rigs in transit will not be the subject of Warnings. Mariners should ensure that their chart and navigational warning information is up to date at all times.

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

Area to be Avoided in Bass Strait

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

10. IMO adopted Traffic Separation Schemes (TSS), serving Bass Strait and the area south of Wilsons Promontory, are promulgated in *Notice to Mariners No 16.* In addition, in Bass Strait, there is an Area to be Avoided, which should be avoided by ships of more than 200 gross tonnage. The area is bound by a line joining the following points:
(a) The low water line at latitude 38° 15' S
(b) 38° 35' S 147° 44' E (c) 38° 41' S 148° 06' E (d) 38° 41' S 148° 13' E
(e) 38° 32' S 148° 26' E (f) 38° 19' S 148° 35' E (g) 38° 08' S 148° 31' E
(h) 38° 05' S 148° 24' E (i) the low water line at latitude 37° 58' S
(j) thence along the low water line to the point of commencement.

11. Exploratory rigs including Mobile Offshore Drilling Units (MODUs) may be encountered outside the Area to be Avoided, and should not be approached within 2.5 nautical miles.

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

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

14. Under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* it is an offence, punishable on conviction by a heavy fine or imprisonment or both, for an Australian registered ship with a registered gross tonnage in excess of 200, without authorisation to enter any 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. *(AA713805)*

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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 adopted by the International Maritime Organisation (IMO). Ships operating in or near the Traffic Separation Schemes (TSS) must comply with *Rule 10 of the Regulations for Preventing Collisions at Sea, 1972.*

Bass Strait (see charts *Aus 357 & Aus 487*)
2. Description of the traffic separation scheme is:
(a) A separation zone 1.5 nm wide is centred on a line connecting the following geographical positions:
(i) 38° 41'.5 S 148° 20'.2 E (ii) 38° 44'.5 S 148° 14'.9 E
(iii) 38° 46'.3 S 148° 09'.0 E
(b) A traffic lane for westbound shipping is established between the separation zone and a line connecting the following geographic positions:
(i) 38° 38'.5 S 148° 17'.5 E (ii) 38° 41'.0 S 148° 13'.2 E
(iii) 38° 42'.8 S 148° 07'.3 E
(c) A traffic lane for eastbound shipping is established between the separation zone and a line connecting the following geographic positions:
(i) 38° 49'.8 S 148° 10'.8 E (ii) 38° 48'.0 S 148° 16'.7 E
(iii) 38° 44'.6 S 148° 23'.0 E

3. Navigational aids have been established in the area as follows:
(a) Kingfish B Platform (38° 36'.00 S 148° 11'.48 E) - *Racon (3 & 9 GHz) Morse B.*
(b) Flounder A Platform (38° 18'.7 S 148° 26'.4 E) - *Racon (3 & 9 GHz) Morse Q*.

South of Wilsons Promontory (see charts *Aus 802, Aus 357 & Aus 487)*
4. Description of the traffic separation scheme:
(a) A separation zone bounded by a line connecting the following geographical positions:
(i) 39° 11'.0 S 146° 45'.0 E (ii) 39° 15'.0 S 146° 33'.0 E
(iii) 39° 15'.0 S 146° 15'.0 E (iv) 39° 12'.0 S 146° 25'.0 E

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

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

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

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

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

Inshore Traffic Zone

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

Australian Maritime Safety Authority, Canberra. *(AA713805)*

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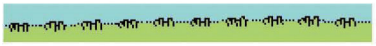
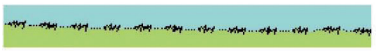
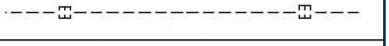
17. SYMBOLOGY USED ON AUSTRALIA NAVIGATIONAL CHARTS

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

INT 1 Reference	Description	Symbol
D 17b	Helicopter Landing Site	
J 21	Approximate Rock Reef	
J 21	Rock Symbol	
J 22	Approximate Coral Reef	
J 22	Areas Considered to be Coral Reef	
J 22	Areas of possible shoaling	
J 22	Coral Pinnacle	
L 17	Moored Storage Tanker	
M	Preferred Route	
K 48.1	Marine Farm	
U 3	Visitors Mooring	
N	Ship Reporting System	
	Virtual Aids to Navigation	

Australian Hydrographic Service. *(AA175642)*

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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:

(a) The height above the hull of the lower main masthead light is often less than the breadth of the vessel.
(b) The horizontal distance between masthead lights is frequently less than half the length of the vessel.
(c) 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, geotechnical 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 in carrying out this work, which may often be run across the normal shipping lanes survey vessels may be towing multiple instruments up to 8,200 metres in length. 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 nautical miles if passing astern of any towed instrument.

Department of Defence (Navy). *(AA174776, AA174777)*

19. INFORMATION CONCERNING SUBMARINES

Warning Signals

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

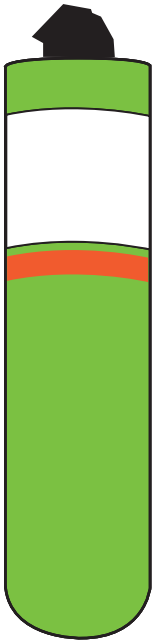
(a) **Visual signals**. Australian warships fly the International Code Group "NE2" to denote that submarines which may be submerged, are in the vicinity. Vessels are cautioned to steer so as to give a wide berth to any vessel flying this signal. If from any cause it is necessary to approach her, a good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

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

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

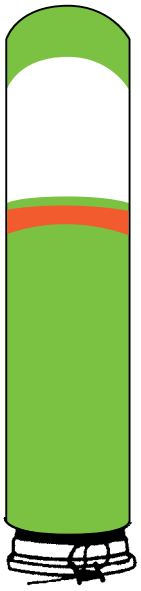
Note: If the red pyro flare signal is sighted and the submarine does not surface within 5 minutes it should be assumed that the submarine is in distress and has sunk. An immediate attempt should be made to fix the position in which the signal was sighted, after which action in accordance with *paras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

Candle Smoke White Mk 4 N



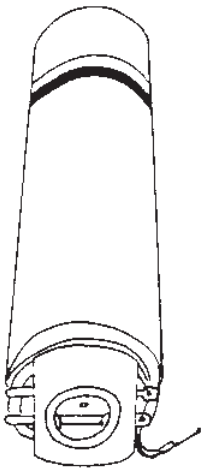
Description	Green, red and white, with red and black markings
Length	42·5cm
Diameter	9·5 cm
Content	Calcium Phosphide
Duration	15 mins – white smoke and flame

Candle Smoke White Mk N6



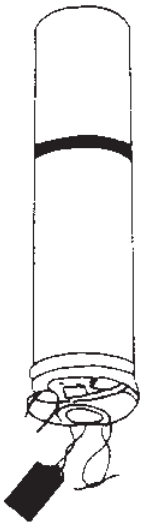
Description	Green, red and white, with red and black markings
Length	42·5cm
Diameter	9·5 cm
Content	Red phosphorous – Two detonators
Duration	Four mins – white smoke

Float Signal Submerged (Grenade) Mk N3



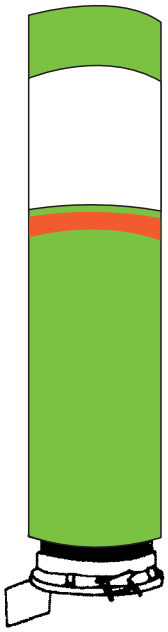
Description	White and black, with black and red markings
Length	43 cm
Diameter	10·2 cm
Content	Two detonators, one ejection charge, one grenade Signal (green/red)
Duration	5 sec – a coloured star is ejected to 91 metres.

Float Signal Submerged Mk N4



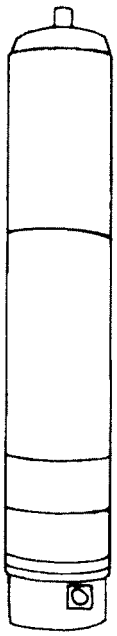
Description	White and black, with black and red markings
Length	40 cm
Diameter	10·2 cm
Content	Two detonators, one ejection charge, one fluorescein dye in a green canister.
Duration	No time element: The container is ejected 6 metres splitting the dye canister.

Candle Smoke Yellow Mk N7

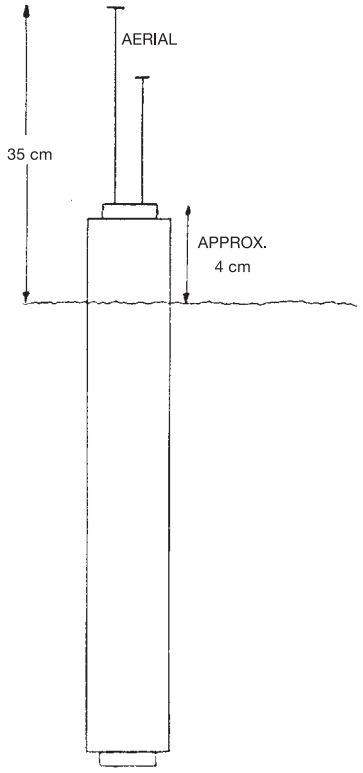


Description	Green, red and white, with red and black markings
Length	42·5cm
Diameter	9·5 cm
Content	Smoke composition — Two detonators
Duration	4 mins — yellow smoke

Marker Location Marine Mk25

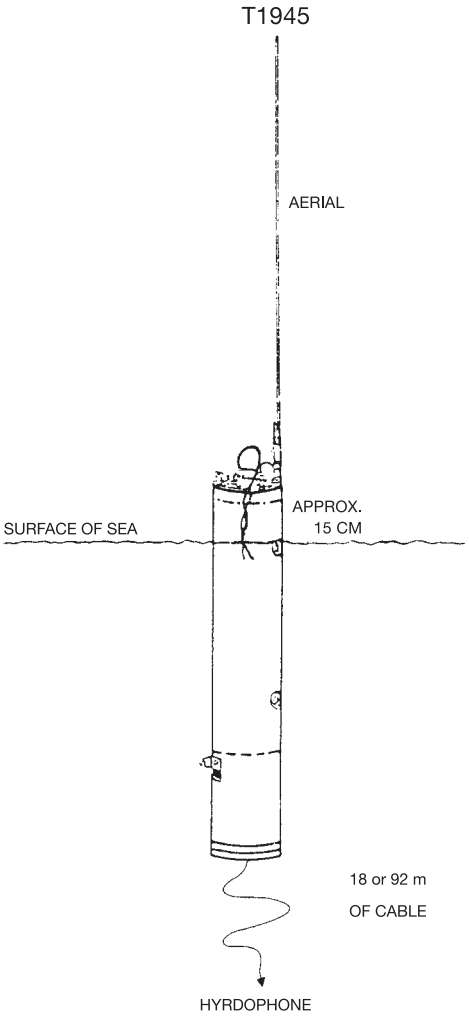


Description	Silver body, black gasket 2·5cm white band
Length	46cm
Diameter	7·6 cm
Content	Red phosphorous
Duration	16 mins — smoke and flame
Caution	An explosive charge is fitted, fragmentation to 8 metres



Submarine Launched Emergency Communications Buoy

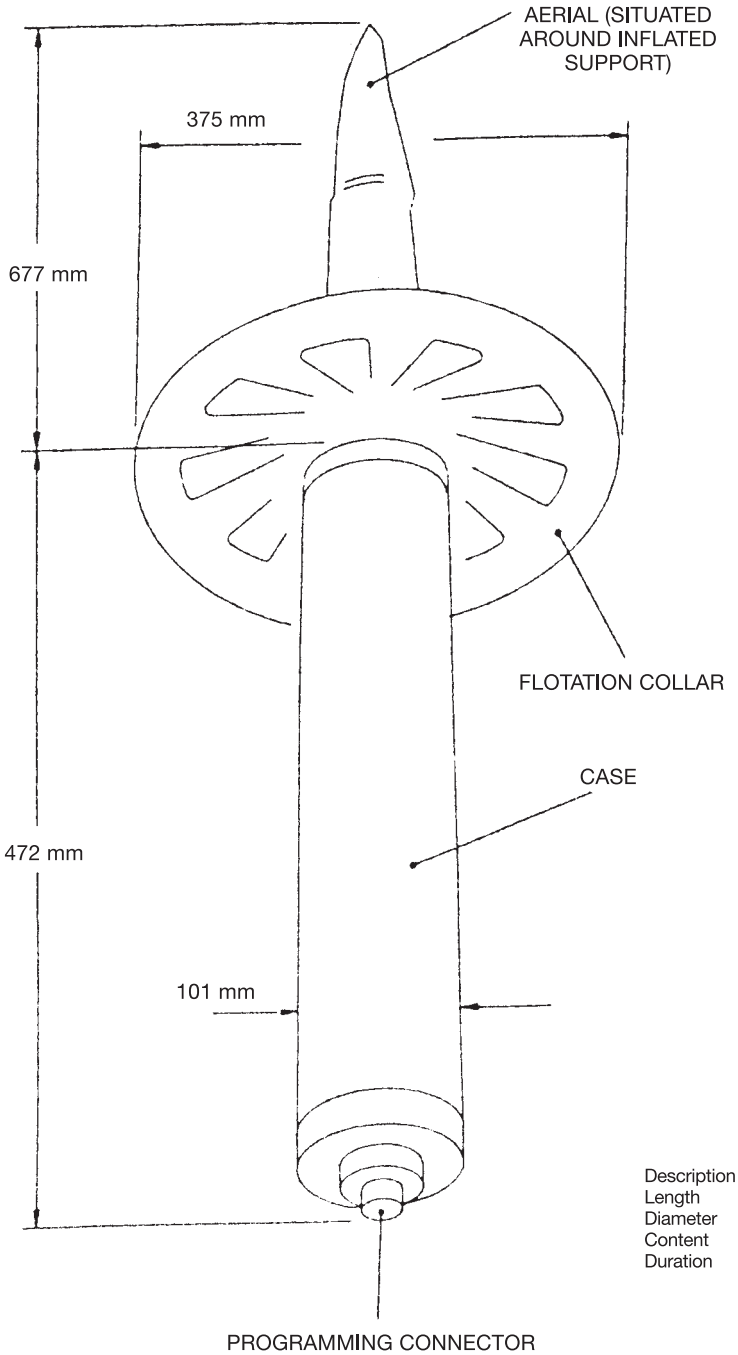
Description	Orange
Length	86cm
Diameter	10cm



Rough Drawing Sonobuoy

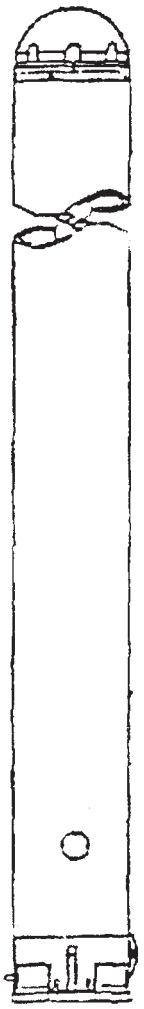
Description	Grey
Length	72·6m
Diameter	5·2m

Expendable Communications Buoy (ECB)

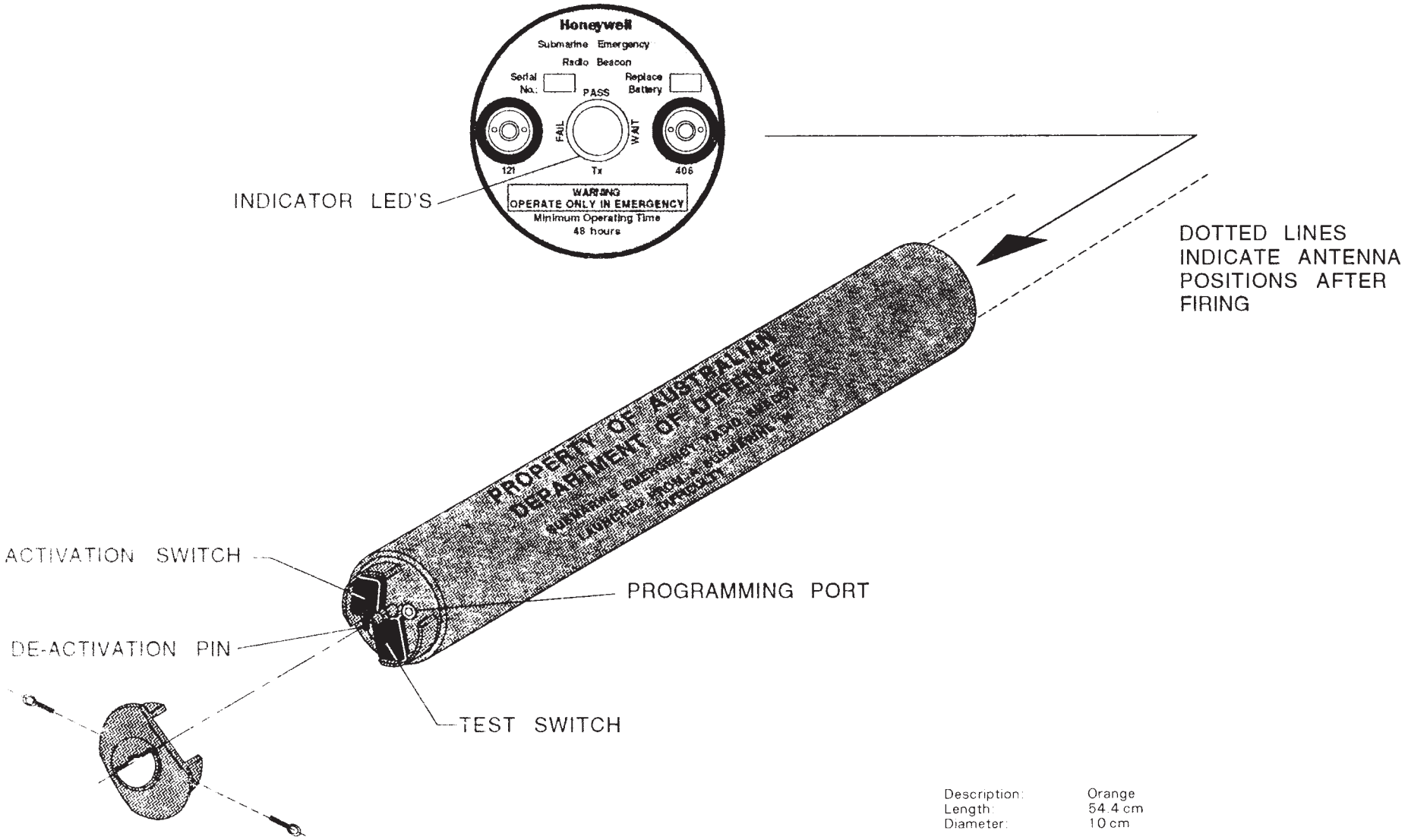


Description	Silver

Submarine Launched Flare D4A2



Description	Silver body, white markings
Length	1 m
Diameter	7·6 cm
Content	Red, Green or White Flares (Magnesium)
Duration	30 – 40 secs. A flare is ejected to 170m
	Red flare nose cap is buoyant, coloured flourescent red, contains dye marker and may contain a message.



Description:	Orange
Length:	54.4 cm
Diameter:	10 cm

SUBMARINE EMERGENCY RADIO BEACON

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

Australian Submarine Exercise Area

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

Navigation Lights

4. Submarines have their masthead and side lights placed well forward and very low over the water in proportion to the length and tonnage of these vessels. In particular:
(a) some submarines can only show a forward masthead light in calm confined waters;
(b) in other submarines the forward masthead light may be lower than the sidelights;
(c) the main masthead light may be well forward of the mid-point of the submarine's length.

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 fulfill 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/EPIRB Cospas/Sarsat.
(b) 243 MHz Military Air Guard.
(c) 121.5 MHz Civil Air Guard.

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

22. The accompanying diagrams on *pages 83-88* show Submarine Emergency Radio Beacon (SERB), Expendable Communications Buoy (ECB), smoke candles fired from submarines, sonobuoy, and aircraft float, smoke and flame markers. A general description of each is as follows:
(a) *White Smoke Candles.* These are fired from submarines to indicate their position. They burn for up to 15 minutes emitting white smoke and flame and can thus be seen day or night; they can easily be confused with aircraft marine markers and floats smoke and flame.
(b) *Yellow Smoke Candles.* These are fired from submarines to indicate their position. They burn for about five minutes emitting yellow smoke. They can be seen more easily than the white smoke candles in rough weather but cannot be seen at night.
(c) *Sonobuoys.* These are dropped from aircraft to detect submarines and may been 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)*

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20. QUARANTINE PRE-ARRIVAL REPORTS FOR VESSELS

1. The Department of Agriculture, Fisheries and Forestry (DAFF) 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 DAFF. Copies of this report can be accessed from the DAFF's web site: http://www.daff.gov.au/biosecurity/avm/vessels/vessel-clearance/vessels..

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 DAFF 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 DAFF will be met by a quarantine officer on or shortly after arrival to complete quarantine formalaties. This will cause delays to the vessel and will incur additional DAFF 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 DAFF. If the vessels ballast water details change, a revised QPAR must be sent to DAFF for clearance prior to discharging any ballast water.

6. Vessell Masters are also required to complete DAFF *Ballast Management Summary* (http://www.daff.gov.au/biosecurity/avm/vessels/quarantine_concerns/ballas/ballast-log).: The DAFF *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 DAFF Ballast Management Summary 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 DAFF Ballast Management Summary 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. DAFF 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 jurisdicational requirements for the management of domestically sourced ballast water.

Quarantine Pre-Arrival Report for Vessels without Facsimile

9. This report is provided by DAFF as a guide to assist in the transferal of information from the vessel to the agent. Under no circumstances will DAFF accept vessel information in telex format. DAFF will only accept the information in the approved format. The approved report (QPAR) must reach DAFF no more than 48 hours and no less than 12 hours prior to the vessels arrival in Australia. DAFF 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* (QPAR)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)*

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21. NAVIGATION IN THE GREAT BARRIER REEF AND TORRES STRAIT

Coastal Pilotage in the Great Barrier Reef and Torres Strait

1. Under Australian law, which implements Australia's system of pilotage, certain vessels are required to navigate with a pilot licensed by the Australian Maritime Safety Authority (AMSA) 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* (available in the Annual Australian Notices to Mariners).

Pilotage in the Great Barrier Reef

3. The *Great Barrier Reef Marine Park Act 1975* requires all 'regulated ships', that is all vessels of 70 metres or more in overall length (except Defence Force vessels), and all loaded oil tankers, all loaded chemical carriers and all loaded liquefied gas carriers (irrespective of length), to navigate witha pilot, licensed by AMSA, when passing through the Inner Route of the Great Barrier Reef (GBR) between Cape York and the vicinity of Cairns Roads or when passing through Hydrographers Passage or the Whitsundays compulsory pilotage area.

The Inner Route is the waters bounded by:

(a) the Australian mainland; and

(b) the outer eastern edge of the Great Barrier Reef; and

(c) the northern boundary of the Great Barrier Reef Region; and

(d) the parallel 16º 39.91′S.

Hydrographers Passage is the area bounded by a line that progressively joins, on geodesic lines, the following points:

Item	*Latitude*	*Longitude*
1	20º 39.11′ S	149º 49.36′ E
2	20º 35.91′ S	150º 07.36′ E
3	20º 28.31′ S	150º 18.06′ E
4	20º 02.91′ S	150º 03.06′ E
5	19º 54.91′ S	150º 16.56′ E
6	19º 39.91′ S	150º 10.56′ E
7	19º 50.91′ S	150º 33.06′ E
8	20º 01.41′ S	150º 25.86′ E
9	20º 06.91′ S	150º 17.26′ E
10	20º 19.91′ S	150º 27.06′ E
11	20º 32.91′ S	150º 27.06′ E
12	20º 41.51′ S	150º 11.66′ E
13	20º 54.41′ S	150º 01.96′ E
14	20º 39.11′ S	149º 49.36′ E.

The Whitsundays compulsory pilotage area is the area bounded by a line that begins at the northernmost point of Cape Gloucester at low water, at about 20º 03.94′ S, 148º 27.51′ E, and continues progressively:

(a) on geodesic lines to the following points:

Item	*Latitude*	*Longitude*
1	19º 58.02′ S	148º 18.60′ E
2	19º 57.83′ S	148º 18.53′ E
3	19º 58.00′ S	148º 21.68′ E
4	19º 58.28′ S	148º 27.05′ E
5	19º 58.37′ S	148º 27.40′ E
6	19º 59.28′ S	148º 33.62′ E
7	20º 00.82′ S	148º 37.48′ E
8	20º 02.17′ S	148º 53.07′ E
9	20º 03.58′ S	148º 57.92′ E
10	20º 14.42′ S	149º 10.47′ E
11	20º 15.20′ S	149º 11.15′ E
12	20º 28.93′ S	149º 08.03′ E
13	20º 31.20′ S	149º 09.07′ E
14	20º 34.28′ S	149º 10.50′ E
15	20º 33.91′ S	149º 07.06′ E
16	20º 39.73′ S	148º 45.82′ E;

and

(b) west along the parallel 20º 39.73′ S to the coastline of the mainland at low water, near Midge Point; and

(c) generally northerly, easterly, south-easterly and north-westerly along the coastline of the mainland at low water to the point where the boundary began.

Pilotage in the Torres Strait

4. *The Navigation Act 2012* requires all vessels which are of 70 metres or more in overall length, and all loaded oil tankers, all loaded chemical carriers and all loaded liquefied gas carriers (irrespective of length) to navigate with a licensed pilot, in areas that are prescribed in Marine Order 54 (Coastal Pilotage) 2011. These areas include the Torres Strait and the Great North East Channel (GNEC)) (see *page 96*):

5. The Torres Strait pilotage area is bound:

(a) on the south by latitude 10º 41.00′ S; and

(b) on the east:

(i) for a vessel moving eastward — by longitude 143º 22.00′ E; or

(ii) for any other vessel — by longitude 143º 24.00′ E; and

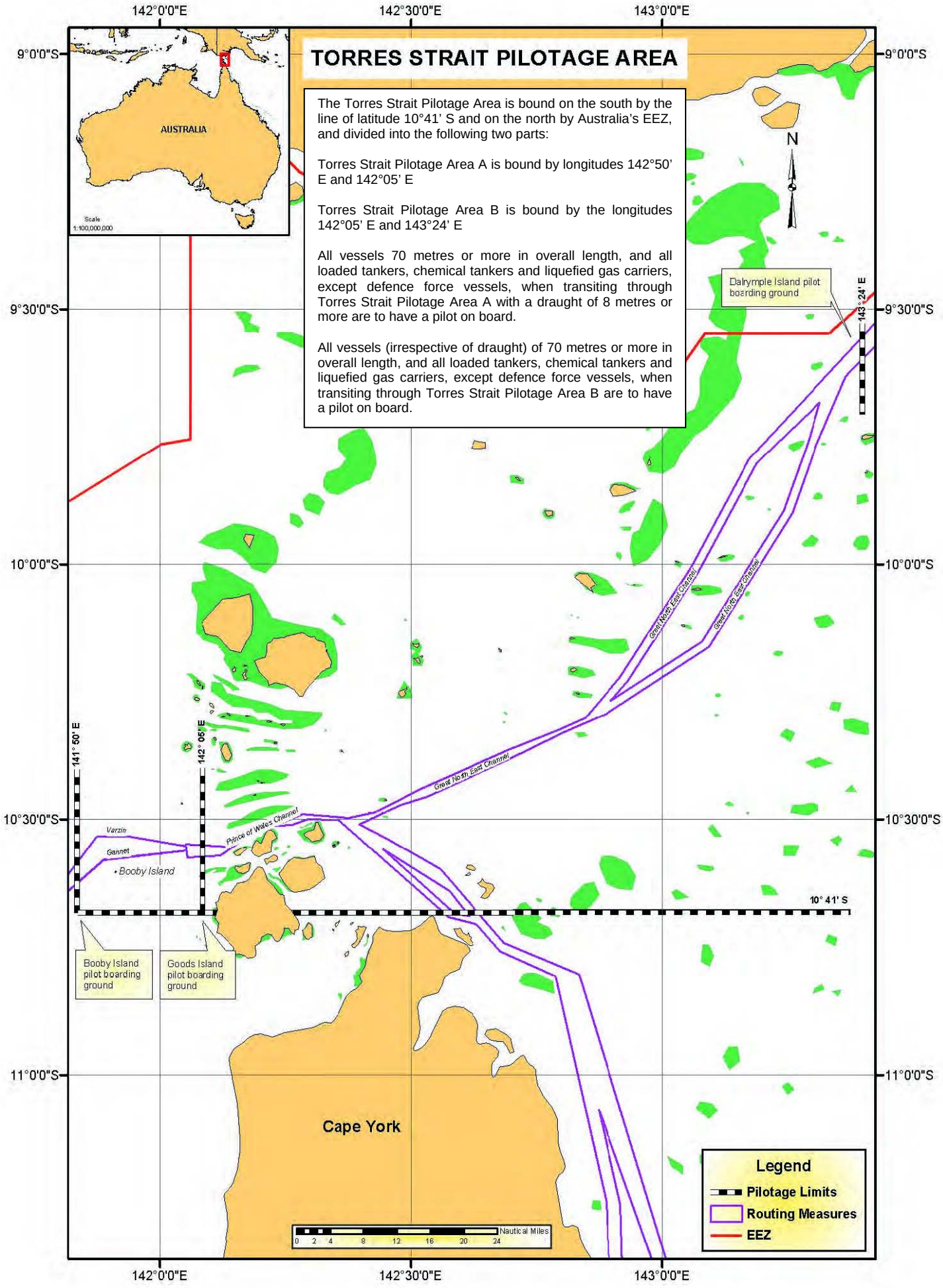
(c) on the north by the line of Australia's exclusive economic zone; and

(d) on the west:

(i) for a vessel of less than 8 m draught moving eastward — by longitude 142º 05.00′ E; or

(ii) for a vessel of 8 m draught or more moving eastward — by longitude 141º 50.00′ E; or

(iii) for a vessel moving westward — by longitude 141º 51.70′ E. (see *page 96*):


TORRES STRAIT PILOTAGE AREA
The Torres Strait Pilotage Area is bound on the south by the line of latitude 10°41' S and on the north by Australia's EEZ, and divided into the following two parts:
Torres Strait Pilotage Area A is bound by longitudes 142°50' E and 142°05' E
Torres Strait Pilotage Area B is bound by the longitudes 142°05' E and 143°24' E
All vessels 70 metres or more in overall length, and all loaded tankers, chemical tankers and liquefied gas carriers, except defence force vessels, when transiting through Torres Strait Pilotage Area A with a draught of 8 metres or more are to have a pilot on board.
All vessels (irrespective of draught) of 70 metres or more in overall length, and all loaded tankers, chemical tankers and liquefied gas carriers, except defence force vessels, when transiting through Torres Strait Pilotage Area B are to have a pilot on board.
AUSTRALIA
Scale 1:100,000,000
N
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
Dalrymple Island pilot boarding ground
143° 24' E
Great North East Channel
141° 50' E
142° 05' E
Varzin
Gannet
Booby Island
Prince of Wales Channel
10° 41' S
Booby Island pilot boarding ground
Goods Island pilot boarding ground
Cape York
Nautical Miles
0 2 4 8 12 16 20 24
Legend
Pilotage Limits
Routing Measures
EEZ

Penalties
6. It is an offence for a vessel required to navigate with an AMSA-licensedcoastal pilot to fail to do so under each of the laws mentioned above. Penalties are significant and may be applied to both the master and the owner of the vessel.

Applications for Pilotage Exemptions in the Great Barrier Reef and Torres Strait
7. The master or owner of a 'regulated ship' may apply in writing for an exemption from the requirement to navigate with aAMSA-licensed coastal pilot in pilotage areas in the Great Barrier Reef (including the Inner Route, Hydrographers Passage and the Whitsundays pilotage areas) under the*Great Barrier Reef Marine Park Act 1975.*

Enquiries regarding GBR pilotage exemptions may be made to the Great Barrier Reef Marine Park Authority (GBRMPA) for attention by the Manager Ports and Shipping.

Enquiries regarding Torres Strait pilotage exemptions may be addressed to AMSA, for attention by the Principal Pilotage Officer, phone 073001 6806 or email NSIDPILOT@amsa.gov.au.

The master or owner of a vessel may apply in writing to AMSAforan exemption to navigate with anAMSA-licensed coastal pilot in the Torres Strait pilotage area under the *Navigation Act 2012*.

Pilot Boarding Grounds (PBG) for Torres Strait Transits
8. Vessels requiring a pilot for transits of the Torres Strait are to arrange for the pilot to board at the following locations:

Constraints	*Pilot Boarding Ground*	*Position (WGS84)*
East-bound vessels through Torres Strait (draught ≥8 metres)	BoobyIsland	10º 36'.3 S 141º 49'.8 E
East-bound vessels through Torres Strait (draught <8 metres)	GoodsIsland	10º 33'.9 S 142º 04'.4 E
West-bound vessels through Torres Strait – GNEC	Dalrymple Islet	09º 34'.0 S 143º 24.5 E

Masters of east-bound vessels with a draught of less than 8 metres can request the services of a pilot from Booby Island if they wish to do so. Additional information regarding pilot boarding arrangements for other pilotage areas (including the Inner Route) isavailable in *Notice to Mariners No.23* and the *Seafarers Handbook for Australian Waters*.

9. Enquiries regarding Torres Strait pilotage requirements may be addressed to AMSA, for attention by the Principal Pilotage Officer, phone 073001 6806 or email NSIDPILOT@amsa.gov.au.

10. General information on pilotage in the Great Barrier Reef and Torres Strait may be found at http://www.amsa.gov.au/navigation/shipping-management/pilotage/, or in the Queensland Coastal Passage Plan (QCPP), available at http://www.amsa.gov.au/navigation/shipping-management/pilotage/qcpp/index.asp.

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

The Great Barrier ReefMarinePark
15. *The Great Barrier Reef Marine Park Zoning Plan 2003*, in force at 1 July 2004 sets out the zoning regime in the park, the purposes for which zones may be used or entered without permission, and the purposes for which zones may be used or entered only with the written permission of the Great Barrier Reef Marine Park Authority. See *Seafarers Handbook For Australian Waters (AHP 20)*for GBRMP Activities Table.

Designated Shipping Area (DSA)
16. *The Great Barrier ReefMarinePark 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 ReefMarinePark. The DSA accommodates vessels using accepted or normally used routes and shipping should stay within the DSA. Penalties apply to vessels which operate outside the DSA or General Use Zones without the written permission of the Great Barrier Reef Marine Park Authority, other than for the purposes mentioned in *para 18*.

17. The DSA applies to any vessel that is:
(a) 50 metres or more in overall length; or
(b) an oil tanker (within the meaning given by the Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, 1973), regardless of its length; or
(c) a chemical carrier or liquefied gas carrier, regardless of its length; or
(d) a ship to which the INF Code applies, regardless of its length; or
(e) a vessel that is adapted to carry oil or chemicals in bulk in cargo spaces; or
(f) a vessel engaged in towing or pushing another vessel or vessels if any of paragraphs (a) to (e) applies to the towed or pushed vessel, or the total length of the tow, from the stern of the towing vessel to the after end of the tow, is greater than 150 metres;

but is not:
(g) a vessel of the Australian Defence Force; or
(h) a vessel of the armed service of another country, if the vessel is in Australian waters with the consent of Australia; or
(i) a super-yacht (that is, a vessel more than 50 metres in overall length used for private recreational activities).

18. All such vessels are required to navigate within the limits of the DSA and the General Use Zones of the Great Barrier ReefMarinePark, except in the case of an emergency for any of the following purposes:
(a) to investigate and respond to an emergency alert;
(b) to save human life or avoid the risk of injury to a person;
(c) to locate or secure the safety of an aircraft, vessel or structure that is, or may be, endangered by stress of weather or by navigational or operational hazards;
(d) to carry out emergency repairs to a navigational aid;
(e) to deal with a threat of pollution to the marine environment under a Commonwealth law or a national emergency response arrangement in which the Great Barrier Reef Marine Park Authority participates; or
(f) under Commonwealth law, to remove or salvage a vessel or an aircraft, or a section of a vessel or aircraft, or other wreck, that is wrecked, stranded, sunk or abandoned and poses a threat to the marine environment or safety.

19. Vessels wishing to deviate from the DSA or General Use Zones, cruise ships for example, must seek permission from GBRMPA.

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 GBRMPA at:
PO Box 1379,
TOWNSVILLE
QLD 4810,
or by telephone: +61 (0)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 adopted 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 ReefMarinePark Zoning Plan 2003*. All ships in excess of 500 tons gross tonnage should avoid the area bounded by a line connecting the following geographic positions:

(a) 23° 10' S 151° 56' E	(b) 23° 53' S 152° 28' E	(c) 23° 55' S 152° 28' E
(d) 23° 57' S 152° 26' E	(e) 23° 57' S 152° 24' E	(f) 23° 32' S 152° 55' E
(g) 23° 36' S 151° 39' E	(h) 23° 33' S 151° 35' E	(i) 23° 30' S 151° 35' E
(j) 23° 25' S 151° 53' E	(k) 23° 20' S 151° 50' E	(l) 23° 20' S 151° 40' E
(m) 23° 15' S 151° 40' E	(n) 23° 10' S 151° 52' E	

Fishing Vessels
22. Concentrations of fishing and trawling vessels will frequently be encountered in the GBR Inner Route and Great North East Channel including trawlers that primarily operate at night. Close quarters situations are often unavoidable due to the confined nature of these waterways. Investigations into previous incidents between commercial vessels and vessels fishing almost invariably show that either one or both vessels were not keeping a proper lookout. Masters are reminded of their responsibilities under Rule 5 of the collision regulations.

Australian Maritime Safety Authority, Canberra. *(AA713805)*

22. MANDATORY SHIP REPORTING SYSTEM Covering the Torres Strait region and the Inner Route of the Great Barrier Reef

Mandatory Ship Reporting System – (REEFREP)

1. The Great Barrier Reef and Torres Strait Ship Reporting System (REEFREP) was established as a mandatory ship reporting system under the International Convention for the Safety of Life at Sea (SOLAS Regulation V/11). REEFREP was formally adopted by the IMO's Maritime Safety Committee in Resolution MSC.52(66), and later amended by Resolutions MSC.161(78) and MSC.315(88).

2. REEFREP is an integral component of the Great Barrier Reef and Torres Strait Vessel Traffic Service (REEFVTS). Within the REEFVTS area ships identify themselves and report their intended passage through the region. This information, together with the monitoring and surveillance systems used by REEFVTS, assists with the proactive monitoring of a ship's transit through the Great Barrier Reef and Torres Strait.

3. Mariners are referred to *Marine Order Part 56 (REEFREP) 2004* for details of their obligations under REEFREP. This is available on the AMSA website at www.amsa.gov.au

Purpose

4. The Queensland and Australian Governments established the coastal Vessel Traffic Service REEFVTS in 2004. Its purpose is to:

(a) enhance navigational safety in the Torres Strait and the Great Barrier Reef region by interacting with shipping to provide improved information on potential traffic conflicts and other navigational safety information;
(b) minimise the risk of a maritime accident and consequential ship sourced pollution and damage to the marine environment in the Torres Strait and Great Barrier Reef region; and
(c) provide an ability to respond more quickly in the event of any safety or pollution incident.

5. REEFVTS is comprised of four key components:

(a) a mandatory Ship Reporting System (REEFREP), providing the reporting requirements for ships to identify themselves and their intended passage through the region;
(b) monitoring capabilities. REEFVTS uses three sensor technologies to identify and monitor the transit of individual ships. The sensor inputs are Radar, Automatic Identification System (AIS) and Automated Position Reporting (APR) via Inmarsat-C;
(c) decision support tools. Systems are used to monitor the transits of individual ships and assist REEFVTS to determine where interaction may be necessary to assist on-board decision-making. This may include situations where a ship may be in danger of running aground, deviating from a recommended route or does not alter course at a critical waypoint; and
(d) communication capabilities, primarily through the use of Inmarsat-C and VHF radio.

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 INF Code applies; and
(f) ships engaged in towing or pushing where the towing or pushing vessel or the towed or pushed vessel is a vessel prescribed within the categories in *sub-paras 7(a), 7(b), 7(c), 7(d)* or *7(e)* or where the length of the tow, measured from the stern of the towing vessel to the after end of the tow, exceeds 150 metres.

7. For the purposes of the requirement at *sub-para 7(b)* "oil tanker" means:

(a) a ship constructed or adapted primarily to carry oil in bulk as cargo; or
(b) a combination carrier when it is carrying oil in bulk as cargo; or
(c) a chemical tanker when it is carrying oil in bulk as cargo; or
(d) any other ship fitted with cargo spaces which are constructed and used to carry oil in bulk of an aggregate capacity of 200 cubic metres or more.

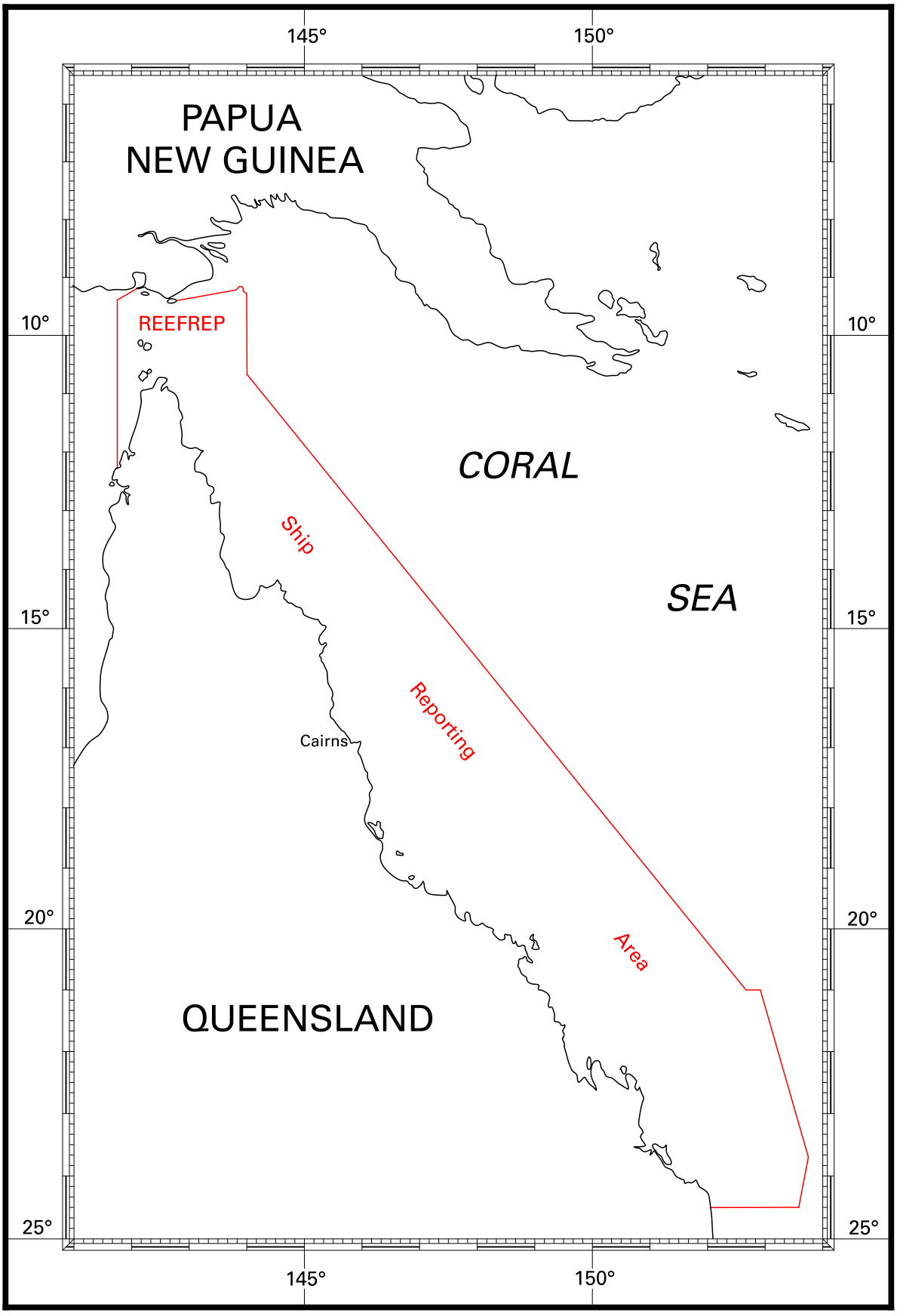
Geographical Coverage.

8. The REEFVTS area is defined by:

(a) the Torres Strait between longitude 141° 45' E and 144° 00' E, including the EndeavourStrait and the Great North East Channel; and
(b) the waters of the Great Barrier Reef between:
    (i) the Australian coast; and
    (ii) the outer edge of the Great Barrier Reef, as bounded by a line:
        (a) starting from the outer edge of the Reef at latitude 10°40′.00 S longitude 144°00′ E; and
        (b) then running south east to latitude 21° 00′ S longitude 152° 40′ E; and
        (c) then running east to latitude 21° 00′ S longitude 152° 55′ E; and
        (d) then running south south east to latitude 23°42′.00 S longitude 153°45′.00 E; and
        (e) then running south south west to latitude 24°30′.00 S longitude 153°35′.00 E; and
        (f) then running west to the intersection of latitude 24° 30′.00 S with the Australian coast at the low water line.

9. The area serviced by REEFVTS is the same area as defined for REEFREP (see chartlet *page 100).*

10. The Australian Hydrographic Service has produced charts of the area, Aus 4620 (INT 620), Aus 4621 (INT 621), Aus 4635 (INT 635), which provide details of REEFREP including coverage, categories of ships required to report and the reporting point positions with their associated VHF channel allocations. These charts are available through normal outlets.



System Overview

11. REEFVTS is manned and operated 24 hours a day by personnel operating from the REEFVTS Centre, radio call identity “REEFVTS”, situated in Townsville.

12. REEFVTS provides both information services and navigational assistance services in the REEFVTS area. In summary, the services delivered include:

(a) Ship Traffic Information (STI) - Ship encounters are predicted and this information is sent to individual ships as STI, usually through Inmarsat-C messaging;
(b) Maritime Safety Information (MSI) - Information that is relevant to the ships location and intended movement is provided; and
(c) Navigational Assistance - REEFVTS may contact that ship, if there is information available to REEFVTS, which may help on-board decision-making such as where the ship is heading into shallow water or deviating from a planned route.

13. REEFVTS may not know about all the hazards in the area. If a ship encounters any hazard that is not already included in Maritime Safety Information (MSI) (for example, a faulty navigational aid) they should advise 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 detailed in the publication *REEFVTS User Guide*. Copies are available:

(a) online at www.amsa.gov.au or www.msq.qld.gov.au,
(b) hard copies from any office of AMSA, or
(c) may be requested by email:reefvts@amsa.gov.au.

Reports and Procedures

15. Mariners are reminded that a master of a ship to which Marine Order 56 applies must make the following reports to REEFVTS:

(a) Pre-Entry Position Report (PER);
(b) Entry Report (ER);
(c) Passage Plan Report (RP);
(d) Route Deviation Report (DR) ;
(e) Intermediate Position Reports (IP), if applicable;
(f) Defect Reports (IR); and
(g) Final Report (FR).

The types of reports required are outlined below. More information about each of these reports is detailed in the REEFVTS User Guide.

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:

(a) entering the REEFVTS area; or
(b) departing from a port within REEFVTS area

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:

(a) enters the REEFVTS area; or
(b) departs from a port within REEFVTS area.

19. This report provides a ship’s details, intentions and passage through REEFVTS area. Passage information is mandatory. REEFVTS User Guide provides details for this information.

Passage Plan

20. Route information must be provided by one or more of the following methods:

(a) standard route plan, or
(b) mandatory reporting points, or
(c) waypoints.

21. More information on standard routes are described in the *REEFVTS User Guide*.

Route Deviation Report

22. If the ship deviates from the Passage Plan which was sent to REEFVTS, this information should be reported to REEFVTS before the deviation is made. However, in situations where a deviation is made without much warning, a report should be sent to REEFVTS as soon as possible.

23. The deviation is to be reported using one of Passage Plan Reports as described in *sub-para 22*.

Intermediate Position Reports (PR)

24. Where REEFVTS advises that the ship's position is being tracked by sensors then Intermediate Position Reports at the Mandatory Reporting Points are not required.

25. If the ship's position is not being tracked by sensors, then a brief position report must be given as advised by REEFVTS.

Defect Report (DR)

26. Reports must be provided without delay should a ship suffer damage, failure or breakdown which affects the safety of the ship.

27. Reports of pollution or cargo lost overboard must also be reported to REEFVTS without delay. Reports should also be provided for incidents involving Dangerous Goods (DG), Harmful Substances (HS) or Marine Pollutants (MP).

Final Report (FR)

28. A Final Report must be made in respect of a ship:
(a) exiting REEFVTS area; and
(b) arriving at a port within the REEFVTS area.

Communication with REEFVTS

29. Communication with REEFVTS is in English. The IMO's Standard Marine Communication Phrases are to be used.

30. The means of communication with REEFVTS can be VHF radio (callsign "REEFVTS"), Inmarsat-C or other means.

31. If a ship's radio equipment fails and the ship cannot send the required reports to REEFVTS, the failure must be recorded in the ship's radio log book or the official log book.

VHF Radio

32. A VHF radio network is available along the Queensland coast and Torres Strait for communication with REEFVTS. REEFVTS keeps a listening watch at all times on the VHF working Channels 11 and 14.

33. The VHF channels alternate through the REEFVTS area based on latitude:

Latitude from:	Latitude to:	VHF Channel
9° 00' S	13° 30' S	14
13° 30' S	18° 00' S	11
18° 00' S	20° 00' S	14
20° 00' S	22° 00' S	11
22° 00' S	24° 30' S	14

34. VHF coverage is limited in some areas. Other communication methods such as Inmarsat –C messaging and email can be used between:
(a) Inset (J) and Heath (K) – Lads Passage and Fairway Channel
(b) Swain (Z1) and Archer (Z2) – Offshore from Gladstone in the south-eastern area.

Inmarsat-C

35. REEFVTS will pay the cost of messages sent by Inmarsat-C if the ship uses the special access code (SAC) 861 via POR LES 212. When setting up the Inmarsat-C address book, select either: ASCII or 7-bit or IA5 for data presentation or character code.

Other Communications

36. If for any reason a ship cannot communicate via Inmarsat-C or the VHF working channel, the ship must send the required information to REEFVTS in another way. The ship can use one of the following:
(a) Telephone: 1300 721 293
(b) Facsimile: +61 (0)7 4721 0633
(c) Email: reefvts@vtm.qld.gov.au

MASTREP Reporting

37. Vessels participating in MASTREP ship reporting system do not have to report to RCC Australia while they are transiting the REEFVTS Area.

38. When a vessel departs the REEFVTS Area and is reporting to MASTREP, the Master must report any malfunction of the vessel's AIS equipment to RCC Australia in accordance with Section 186 of the *Navigation Act* 2012. Further information about reporting to MASTREP is provided in the MASTREP and Australian Mandatory Reporting Guide. A copy of this Guide can be downloaded from the AMSA website at www.amsa.gov.au.

Offences
39. Any master, or officer of the watch at the time, who fails to follow the required reporting procedures, or who deliberately transmits information which is incorrect, false or misleading, will have committed an offence and may be fined if convicted.

Australian Maritime Safety Authority, Canberra .*(AA713805)*

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23. GREAT BARRIER REEF AND TORRES STRAIT PILOTAGE SERVICES
Draught Limitation and Service Advice.

1. Coastal pilots undertaking pilotage duties within the Great Barrier Reef and Torres Strait are licensed by the Australian Maritime Safety Authority (AMSA) as required by the *Great Barrier Reef Marine Park Act1975, the Navigation Act 2012* and *Marine Order 54 (Coastal Pilotage) 2011* for the declared compulsory pilotage areas.

2. AMSA-Licensed coastal pilots will pilot vessels through Gannet Passage, Varzin Passage, and the Prince of Wales Channel with a maximum draught up to 12.2 metres.

3. The minimum dynamic (net) 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 vessels with draughts of 11.90 metres or more.

4. Vessels entering or leaving the Inner Route by way of Grafton, Palm and Hydrographers Passages are restricted by any draught limitation relevant to the intended navigational track(s) and/or at the Australian port of arrival or departure.

Pilotage Services and Arrangements
5. Pilotage services in the Torres Strait (including the Great North East Channel (GNEC) and the Great Barrier Reef) are provided by three commercial companies, these are:
(a) Australian Reef Pilots Pty Ltd "Reef Pilots";
(b) Hydro Pilots Pty Ltd “Hydro Pilots” (Hydrographers Passage only); and
(c) Torres Pilots Pty Ltd “Torres Pilots”.

6. Masters are to ensure that pilot ladders and pilotage boarding arrangements comply strictly with current SOLAS regulations, *Australian Marine Order 21(Safety of navigation and emergency procedures) 2012* and the requirements of the International Maritime Pilots’ Association. A line will be required to lift aboard the pilot's luggage and equipment as required.

7. Boarding by helicopter is used as an alternative to launch services at some pilot boarding grounds (PBG) and is the only method used for pilot transfer at Hydrographers Passage. Boarding by helicopter(helo) when used, is by land-on only. Masters should consult *Marine Order 57 (Helicopter operations) 2010* 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 land-on operations when ordering a Pilot at a boarding ground where this transfer method is an option.

Australian Reef Pilots Pty. Ltd. Contact and Boarding Arrangements

8. Pilotage contacts are:

Brisbane Head Office	Telex:	(UK) 51 94076260 ARPB G
	Fax	+61 (0)7 3666 4040
	Phone	+61 (0)7 3666 4000
	Mobile	+61 (0)413 878 792 (all hours)
	Duty Pilot	+61 (0)7 3666 4092 (all hours)
	Email	operations@reefpilots.com.au
	Internet	www.reefpilots.com.au
	Postal	PO Box 2654 Fortitude Valley BC QLD 4006
Mackay Pilot Station	Telex:	(UK) 51 94076257 ARPM G
	Phone	+61 (0)7 4957 4877
	Email	mky@reefpilots.com.au
Cairns Pilot Station	Telex:	(UK) 51 94076258 ARPC G
	Phone	+61 (0)7 4055 8311
	Email	cns@reefpilots.com.au
Thursday Island Pilot Station	Telex	(UK) 51 94076256 ARPT G
	Phone	+61 (0)7 4069 1570
	Email	tis@reefpilots.com.au
Yorke Island Pilot Station	Phone	+61 (0)7 4069 4061
	Phone	+61 (0) 427 726 966
	Email	yki@reefpilots.com.au

VHF callsign for all areas: "REEFPILOTS"

Ordering a Pilot

For: TORRES STRAIT (Including THE GNEC AND THE INNER ROUTE)

9. 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.

10. Outbound. Arrange directly with Reef Pilots Brisbane or through the ship's agent.

11. 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 grounds (PBGs):

Location	*Position*	*VHF Ch*	*Method*
Cairns (Yorkeys Knob)	16° 44.0' S 145° 45.1' E	20	Launch or Helo
Torres Strait (GoodsIsland)	10° 33.9' S 142° 04.4' E	20	Launch or Helo
Torres Strait (BoobyIsland)	10° 36.3' S 141° 49.8' E	20	Launch or Helo
GNEC (Dalrymple Islet)	9° 34.0' S 143° 24.5' E	20	Launch

For: HYDROGRAPHERS PASSAGE

12. Inbound. Pilot boarding place is at Blossom Bank 19° 43.6' S 150° 26.0' 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 30 to 40 minutes before the given ETA, changing to Ch 9 to give advice on the boarding procedures.

13. Outbound. Arrange with the Brisbane office direct or through the ship's agent at Hay Point.

Torres Pilots Pty. Ltd. Contact and Boarding Arrangements

14. 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 674Bulimba QLD 4171
Thursday Island Pilot Station	Phone	+61 (0)7 4069 2251
	Fax	+61 (0)7 4069 2252
	Email	torresti@.bigpond.com
Dalrymple Island Pilot Station	Phone	+61 (0)7 4090 0666
	Fax	+61 (0)7 4069 4188
	Email	torrescoconut@torrespilots.com.au or contact through the Thursday Island Pilot Station

Mackay Pilot Base	Phone	+61 (0)7 4944 0455
	Fax	+61 (0)7 4944 0755
	Email	torres@avta.com.au

VHF Call sign for all areas: "TORRES PILOTS"

Ordering a Pilot
For: TORRES STRAIT (Including THE GNEC AND THE INNER ROUTE)
15. Inbound. Contact TORRES PILOTS Brisbane office four to five days (if possible) before arrival advising the IMO Number, Call Sign and initial ETA at the pilot boarding place (UTC + 10 hours), maximum draught, sea speed, destination and pilot disembarkation point if different from the destination. All initial pilot orders will be acknowledged by Torres Pilots Brisbane office.

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

17. Boarding of pilots is arranged by request to the Torres Pilots Brisbane offices. GBR pilots are licensed for the following pilot boarding grounds (PBGs):

Location	*Position*	*VHF Ch*	*Method*
Cairns (Cairns Fairway)	16° 45.0' S 145° 50.0' E	79	Launch
Grafton Passage (*Euston Reef)	16° 39.2' S 146° 14.6' E	79	Launch
Torres Strait (GoodsIsland)	10° 33.9' S 142° 04.4' E	79	Launch
Torres Strait (BoobyIsland)	10° 36.3' S 141° 49.8' E	79	Launch
GNEC (Dalrymple Islet)	9° 34.0' S 143° 24.5'E	79	Launch

* Boarding of a pilot at Grafton Passage (Euston Reef) which is non-compulsory, may be arranged by request to Torres Pilots Brisbane office.

ETA Updates
18. Vessels should update their ETA at the Booby Island, Goods Island or Dalrymple Islet PBG to the Thursday Island Pilot Station 72, 48, 24 and 12 hours before arrival.

19. Vessels should update their ETA at the Cairns Fairway PBG to the Brisbane office 72, 48, 24 and 12 hours before arrival.

HYDROGRAPHERS PASSAGE
20. Inbound. Pilot boarding place is at Blossom Bank 19° 43.6'S 150° 26.0' 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.

21. Outbound. Arrange through Torres Pilots Brisbane office or with ship's agent.

Hydro Pilots Pty. Ltd. Contact and Boarding Arrangements
22. Hydro Pilots specialise in providing pilotage services for Hydrographers Passage.

23. Pilotage contact:

Mackay Office	Telex	AA48105 (answer back HPILOT)
	Fax	+61 (0)7 4944 0755
	Phone	+61 (0)7 4944 0455
	Email	hydropilots@hydropilots.com.au
	Postal	PO Box 4018 South Mackay Qld 4740
	VHF Callsign	Hydro Pilots Helicopter

Ordering a Pilot
24. 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° 26'.0 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.

25. Outbound. Arrange through the Mackay office or through the ship's agent advising ETD, departure point, destination, and confirming suitability for land-on helicopter operations.

Australian Maritime Safety Authority. *(AA713805)*

24. DUMPING WASTE AT SEA

1. The *Environment Protection (Sea Dumping) Act 1981* applies to Australian Flag vessels and Australian aircraft anywhere at sea and to all vessels, aircraft or platforms within Australian waters. For the purposes of *the Act,* Australian waters includes waters from the low water line to the limits of the Australian Exclusive Economic Zone (other than waters within the limits of a State or the Northern Territory). *The Act* regulates both loading and deliberate disposal of all matter into the sea from vessels, aircraft or platforms and incineration at sea. It does not apply to wastes arising from the "normal operation" of vessels, aircraft or platforms. Operational discharges from ships come under the control of legislation which implements MARPOL (the International Convention for the Prevention of Pollution from Ships).

2. *The Act*, which came into operation on 6 March 1984 establishes a legal regime by which Australia is able to give effect to the international convention for the Prevention of Marine Pollution by the Dumping of Wastes and Other Matter 1972, generally known as the London Convention (LC), and, since 16 August 2000, the 1996 Protocol to the London Convention.

3. Applications for permission to dump materials at sea should be made on the approved form. Provision is made for the assessment and for the stipulation of precautions and conditions to be observed. Application forms and information regarding application fees can be found at:
http://www.environment.gov.au/coasts/pollution/dumping/index.html

4. If wastes are loaded, dumped or incinerated otherwise than in accordance with a permit, significant penalties apply. These refer not only to the owner of the wastes but also to the owners(s) of the vessel and to the person in charge of the vessel.

5. Masters of vessels are advised to satisfy themselves prior to the loading of wastes or other material intended for dumping or incineration, that appropriate permits have been issued by the responsible Minister under *the Act.*

6. Queries on the application of *the Act*, requests for information or applications for dumping permits should be directed to:

Director
South Australia and Permits section
Department of Environment
GPO Box 787,
CANBERRA ACT 2601
Telephone +61 (0)2 6274 2014

Email: seadumping@environment.gov.au

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

Department of Sustainability, Environment, Water, Population and Communities. *(AH 643542)*

25. REQUIREMENTS FOR REPORTING POLLUTION INCIDENTS.

1. *The International Convention for the Prevention of Pollution from Ships (MARPOL)* entered into force for Australia on 14 January 1988. Protocol I of the Convention contains comprehensive requirements and recommendations for ship reporting of incidents involving harmful substances. The purpose of these new reporting obligations and guidelines is to enable the Australian Maritime Safety Authority to be informed quickly and more accurately about actual or potential accidental spillages or cargo losses as well as illegal discharges so that immediate action may be taken.

2. Reports must be made when an incident involves:

(a) A discharge or probable discharge of oil, or noxious liquid substances carried in bulk, resulting from damage to the ship or its equipment, or for the purpose of securing the safety of a ship or saving life at sea (Harmful Substances Report);

(b) A discharge or probable discharge of harmful substances in packaged form, including those in freight containers, portable tanks, road and rail vehicles and ship borne barges (Marine Pollutants Report);

(c) Damage, failure or breakdown of a ship of 15 metres in length or above which:

(i) affects the safety of the ship; including but not limited to collision, grounding, fire, explosion, structural failure, flooding, and cargo shifting; or

(ii) results in impairment of the safety of navigation; including but not limited to, failure or breakdown of steering gear, propulsion plant, electrical generating system, and essential shipborne navigational aids; or

(d) A discharge during the operation of the ship of oil or noxious liquid substances in excess of the quantity or instantaneous rate permitted under the present Convention.

3. These measures seek to ensure early notification of pollution or threat of pollution. The deciding factor in initiating a report is not so much the distance from the coastline (as in the past) as the possibility of harm to the coastline or territorial sea of a country. Consequently, Australian vessels trading overseas should be aware that a POLREP must be made direct to the Government of any country affected or likely to be affected by a pollution incident.

4. For incidents affecting or likely to affect Australian interests reports should continue to be made to the General Manager, Ship Safety Division in the Australian Maritime Safety Authority through the Rescue Co-ordination Centre (RCC). Contact details for RCC Australia are:

(i) Telephone: +61 (0)2 6230 6811 or free call 1800 641 792
(ii) Facsimilie: +61 (0)2 6230 6868 or free call 1800 622 153
(iii) E-mail: rccaus@amsa.gov.au

Pollution Report

5. POLREP to the General Manager, Ship Safety Division in the Australian Maritime Safety Authority, Canberra through the Rescue Co-ordination Centre (RCC). Contact details for RCC Australia are:

(i) Telephone: +61 (0)2 6230 6811 or free call 1800 641 792
(ii) Facsimilie: +61 (0)2 6230 6868 or free call 1800 622 153
(iii) E-mail: rccaus@amsa.gov.au

HARMFUL SUBSTANCES REPORT (oil and noxious liquid substances)
Sections of the ship report format which are inappropriate should be omitted from the report

A. Ship: name, call sign/ship station identity and flag
B. Date and time of event
C. Position: latitude and longitude or
D. Position: true bearing and distance
E. True Course
F. Speed in knots and tenths of knots
L. Route information: intended track
M. Radio communications: full names of stations
N. Time of next report
P.**

1. Type of oil or noxious liquid substances on board
2. UN number(s)
3. Pollution category (X,Y or Z) for noxious liquid substances
4. Names of manufacturers of substances or consignee or consignor
5. Quantity

Q.

1. Condition of the ship, as relevant
2. Ability to transfer cargo/ballast/fuel

R.

1. Type of oil or the correct technical name of the noxious liquid discharged into the sea
2. UN number(s)
3. Pollution category (X,Y or Z) for noxious liquid substances
4. Names of manufacturers of substances or consignee or consignor
5. An estimate of the quantity of substances
6. Whether lost substances floated or sank
7. Whether loss is continuing
8. Cause of loss
9. Estimate of the movement of the discharge or lost substances giving current conditions if known
10. Estimate of the surface area of the spill

S. Weather conditions
T. Name, address and telephone number of the ship's owner and representative
U. Ship size and type
X.
1. Actions being taken with regard to the discharge and movement of the ship
2. Assistance or salvage efforts which have been requested or which have been provided by others
3. The master of an assisting or salvaging ship should report the particulars of the action undertaken or planned

** In the case of a probable discharge only

MARINE POLLUTANTS REPORT (harmful substances in packaged form)
A. Ship: name, call sign/ship station identity and flag
B. Date and time of event
C. Position: latitude and longitude or
D. Position: true bearing and distance
M. Radio communications: full names of stations
P**
1. Correct technical name or names of goods
2. UN number(s)
3. IMO hazard class(s)
4. Names of manufactures 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 *(AA713805)*

26. DISPOSAL OF GARBAGE AT SEA.

1. *The Protection of the Sea (Prevention of Pollution from Ships) Act 1983* implements the operational requirements of the International Convention for the Prevention of Pollution from Ships *(MARPOL). Annex V of MARPOL* regulates the disposal of operational garbage from ships and it applies to Australian Flag vessels anywhere and to all vessels within Australian waters.

2. *Annex V of MARPOL* is in force internationally and came into force for Australia on 14 November 1990.

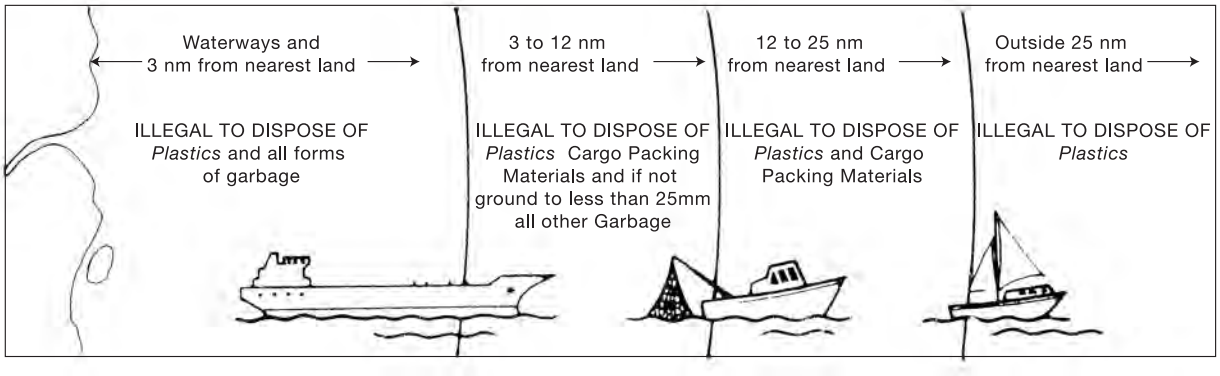
3. The attention of all mariners is drawn to the regulations for disposal of garbage. Disposal of garbage (includes plastics, synthetic ropes, fishing gear, plastic garbage bags, incinerator ashes, clinkers, cooking oil, floating dunnage, lining and packing materials, paper, rags, glass, metal, bottles, crockery and similar refuse) into the sea from ships is prohibited, except in the following limited circumstances, which only apply while the ship is “en route”:

(a) Food wastes, not contaminated by any other garbage type, which have been passed through a comminuter or grinder may be discharged no less than 3 nautical miles from the nearest land. Such comminuted or ground food waste is to be capable of passing through a screen with openings no greater than 25mm. Food wastes, not contaminated by any other garbage type, that have not been treated by passing through a comminuter or grinder may be discharged no less than 12 nautical miles from the nearest land.

(b) Animal carcasses may only be discharged into the sea while the ship is ‘en route’ and providing the discharge is as far as possible from the nearest land, taking into account the Guidelines that have been developed by the International Maritime Organization (IMO - recommended greater than 100 nautical miles from the nearest land). Ship owners and operators engaged in livestock trade should obtain a copy of the Guidelines, and refer in particular to section 2.12 of the Guidelines.

(c) The discharge of cargo residues is only permitted as far as practicable from the nearest land, but in any case not less than 12 nautical miles from the nearest land for cargo residues that cannot be recovered using commonly available methods for unloading. These cargo residues must not contain any substances classified as harmful to the marine environment. IMO has issued guidance on the classification of cargo residues.

(d) Cleaning agents may only be discharged into the sea while the ship is ‘en route’ and if the substance is not harmful to the marine environment. A cleaning agent is not harmful to the marine environment if it is not a "harmful substance" in accordance with the criteria in MARPOL Annex III and does not contain any components which are known to be carcinogenic, mutagenic or reprotoxic.



4. Despite these permitted discharges, it is preferable that all waste is returned to shore based facilities.

5. The attention of all mariners is drawn to the special protection measures under *MARPOL* for the Great Barrier Reef region. The outer edge of the reef is defined as "nearest land" therefore prohibiting the disposal of all garbage within the Great Barrier Reef area and Torres Strait.

6. Every ship of 12 metres or more in length and fixed or floating platforms are required to display placards, written in the working language of the ships crew, that notify the garbage discharge requirements for that vessel.

7. Ships of 100 gross tonnes and above and ships certified to carry 15 persons or more, and fixed or floating platforms are required to have a garbage management plan. Ships of 400 gross tonnes and above, and every ship certified to carry 15 or more persons engaged in voyages to ports and offshore terminals under the jurisdiction of another party to the MARPOL convention, and fixed or floating platforms are required to maintain a Garbage Record Book.

8. Queries on the application of the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983,* requests for information, reports of inadequate port reception facilities or reports of garbage pollution should be directed to:

Marine Environment Division
Australian Maritime Safety Authority
GPO Box 2181
Canberra City ACT 2616
Telephone +61 (0)2 6279 5040
Facsimile +61 (0)2 6279 5966

9. Signals can be passed via RCC Australia through any Maritime Communication Station.

Australian Maritime Safety Authority, Canberra. *(AA632364)*

TEMPORARY AND PRELIMINARY NOTICES
In force on 13 December 2013

NEW SOUTH WALES

410(T)/2011 AUSTRALIA - NEW SOUTH WALES - Port Kembla - Spoil ground
Port Kembla Port Corporation Notice 2/2011 (AA528983)

A spoil ground marked by six lit special buoys exists in the vicinity of position 34° 28'.33 S 150° 54'.57 E.

Chart temporarily affected - Aus 194 - Aus 195

864(T)/2011 AUSTRALIA - NEW SOUTH WALES - Port Kembla - Obstruction
Port Kembla Port Corporation Notice 9/2011 (AA551936)

A silt curtain, marked by special light buoys *Q.Y,* exists in the outer harbour between the following positions:
34° 28'.18 S 150° 54'.15 E
34° 28'.15 S 150° 54'.27 E
34° 28'.47 S 150° 54'.33 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 194 - Aus 195

337(T)/2013 AUSTRALIA - NEW SOUTH WALES - Sydney - Millers Point - Harbour works
Former Notice - 1132(T)/2012 is cancelled
Sydney Ports Notice 9/2013 (AA664448)

Works are marked by a north cardinal light buoy, *VQ* (33° 51'.30 S 151° 12'.13 E), with six special light buoys, *Q.Y,* spaced equally to a north cardinal light buoy, *VQ* (33° 51'.32 S 151° 11'.99 E), with ten special light buoys, *Q.Y,* spaced equally to a west cardinal light buoy, *VQ(9)10s* (33° 51'.63 S 151° 12'.02 E).

A silt curtain exists within the boundary of the buoys.

An exclusion zone exists within the area.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 200 - Aus 202 - AX 00202T

393(T)/2013 AUSTRALIA - NEW SOUTH WALES - Port Kembla - Depth information
Former Notice - 335(T)/2013 is cancelled
Port Kembla Port Corporation Notice 1/2013 (AA662269, AA667485)

Available depths as at 18 April 2013:

	Berth	*Metres*	*Remarks*
*	Inner Harbour	15.1	
	North West Basin	11.2	
	101	11.4	Maximum transit draft 12m
	102	15.7	
	103	12.0	
	104	15.4	
	105	14.8	
	106	13.6	
	107	12.0	
	108	-	Future Development
	109	11.7	
	110	10.7	(9.0)
	111	15.2	
	112	12.8	Maximum transit draft 13.6m
	113	11.2	(9.5) West of 7m chainage
		10.5	East of 7m chainage to eastern end of berthing box
	201	10.4	To 250m
	201	10.2	To 280m
	201	10.1	To 330m
	202	10.5	To 205m mx LOA 180m
	202	10.2	To 205m mx LOA 195m

202	10.0	To 210m
203	9.7	
204	4.2	
205	6.8	
206	11.0	

* Indicates revised entry.

Chart temporarily affected - Aus 194

457(T)/2013 AUSTRALIA - NEW SOUTH WALES - Broken Bay - Barrenjoey Head - Light range reduced
Former Notice - 1318(T)/2010 is cancelled
NSW Maritime (AA506509)

The light (33° 34'.82 S 151° 19'.79 E) has been temporarily altered to *Fl(4)20s 113m 12M.*

Chart temporarily affected - Aus 197 - Aus 204 - Aus 215 - Aus 489 - Aus 809 - Aus 4643 (INT 643) - AX 00215T - AX 00809S

697(T)/2013 AUSTRALIA - NEW SOUTH WALES - Cape Baily to Ben Buckler - Scientific instruments
Former Notice - 748(T)/2011 is cancelled
Date - Until 30 June 2015
Sydney Institute of Marine Science (AA375220, AA420046, AA545275, AA683400)

Subsea moorings (25 metres below the surface) exist in positions as follows:
33° 53'.76 S 151° 17'.30 E
33° 53'.99 S 151° 17'.30 E
33° 54'.23 S 151° 17'.72 E
33° 54'.51 S 151° 18'.14 E
33° 54'.76 S 151° 18'.56 E
33° 55'.02 S 151° 19'.01 E
33° 55'.28 S 151° 19'.45 E
33° 55'.54 S 151° 19'.89 E
33° 55'.80 S 151° 20'.31 E
33° 56'.06 S 151° 21'.17 E
33° 56'.32 S 151° 22'.61 E
33° 56'.60 S 151° 22'.06 E
33° 56'.85 S 151° 22'.50 E
33° 57'.12 S 151° 22'.95 E
33° 57'.40 S 151° 23'.39 E
33° 57'.91 S 151° 24'.25 E
33° 58'.65 S 151° 23'.84 E
33° 58'.20 S 151° 24'.64 E
33° 58'.49 S 151° 25'.08 E
33° 58'.77 S 151° 25'.57 E
33° 59'.08 S 151° 26'.06 E
33° 59'.33 S 151° 26'.47 E
33° 59'.97 S 151° 27'.33 E
34° 00'.21 S 151° 27'.85 E
34° 00'.48 S 151° 28'.27 E
34° 00'.77 S 151° 28'.74 E
34° 01'.33 S 151° 29'.16 E
34° 01'.31 S 151° 29'.63 E
34° 01'.59 S 151° 30'.08 E.

Chart temporarily affected - Aus 197 - Aus 200 - Aus 808 - Aus 809 - AX 00808S - AX 00809S - AX 63200

699(T)/2013 AUSTRALIA - NEW SOUTH WALES - Cabbage Tree Bay to Curl Curl Head - Scientific instruments
Former Notice - 750(T)/2011 is cancelled
Date - Until 30 June 2015
Sydney Institute of Marine Science (AA353372, AA353373, AA424523, AA545275, AA683400)

Subsurface scientific instruments exist in positions:
33° 48'.03 S 151° 18'.03 E
33° 47'.98 S 151° 17'.65 E
33° 47'.99 S 151° 17'.73 E
33° 47'.92 S 151° 17'.61 E
33° 47'.93 S 151° 17'.69 E.

Chart temporarily affected - Aus 197 - Aus 200 - Aus 201 - AX 00201T - AX 63200

902(T)/2013 AUSTRALIA - NEW SOUTH WALES - Botany Bay - Depth information
Sydney Ports Corporation (AA691471, AA691472)

Available depths as at 20 August 2013:

	Berth	*Metres*
*	Main Channel to Molineux Point	15.6
*	Port Botany Swinging Basin	15.9
*	Kurnell 3 Approaches	12.3
*	Kurnell 1 & 2 Swinging Basin & Approaches	11.6
*	Hayes Dock (channel)	16.5
*	Brotherson Dock No5	16.5
*	Brotherson Dock No6	16.5
*	Brotherson Dock No7	13.8
*	Brotherson Dock No8	13.6
*	Brotherson Dock No9	13.6
*	Brotherson Dock No10	13.0
*	Brotherson Dock No11	13.0
*	Brotherson Dock No12	14.6
*	Bulk Liquids 1	18.3
*	Bulk Liquids 2	19.0
*	Kurnell No1	11.0
*	Kurnell No2	11.2
*	Kurnell No3	12.5

* Indicates new or revised entry.

Chart temporarily affected - Aus 196 - Aus 198 - Aus 199

906(T)/2013 AUSTRALIA - NEW SOUTH WALES - Sydney Harbour - Depth information
Sydney Ports Corporation (AA691471, AA691472)

Available depths as at 20 August 2013:

	Berth	*Metres*
*	Overseas Passenger Terminal	10.0
*	Glebe Island 1	11.8
*	Glebe Island 2	11.9
*	Glebe Island 7	10.7
*	Glebe Island 8	8.4
*	White Bay 2	11.0
*	White Bay 3	10.6
*	White Bay 4	11.1
*	White Bay Cruise Terminal	10.5
*	Gore Cove 1	13.0
*	Gore Cove 2	9.8

* Indicates new or revised entry.

Chart temporarily affected - Aus 200 - Aus 202 - AX 00202T

966(T)/2013 AUSTRALIA - NEW SOUTH WALES - Botany Bay - Yarra Bay to Kurnell - Scientific instruments
Sydney Ports Corporation Notice 33/2013 (AA696672)

Scientific instruments marked by special light buoys, *Fl.Y.5s*, exist in the following positions:
33° 58'.84 S 151° 13'.36 E
34° 00'.23 S 151° 12'.49 E
34° 00'.32 S 151° 12'.66 E
34° 00'.29 S 151° 12'.80 E
34° 00'.02 S 151° 12'.38 E
34° 00'.03 S 151° 13'.22 E.

Chart temporarily affected - Aus 196 - Aus 198 - Aus 199

1095(T)/2013 AUSTRALIA - NEW SOUTH WALES - Botany Bay - Kurnell - Harbour works; dredging operations
Date - Until 28 February 2014
Sydney Ports Corporation Notice 34/2013, 35/2013 (AA703107, AA703108)

Harbour works are in progress at the Caltex berths. No1 berth is closed and will be unavailable for the duration of the works.

The dredge *Machiavelli* is conducting dredging operations in an area bounded by the following positions:
34° 00'.14 S 151° 12'.72 E
33° 59'.94 S 151° 12'.54 E
33° 59'.40 S 151° 12'.54 E
33° 59'.31 S 151° 12'.71 E
33° 59'.47 S 151° 13'.06 E
33° 59'.74 S 151° 13'.07 E.

A tug and barge will be on site and will deposit spoil to the spoil ground in position 33° 52'.0 S 151° 26'.0 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 196 - Aus 198 - Aus 199

1097(T)/2013 AUSTRALIA - NEW SOUTH WALES - Port Jackson - Glebe Island - Harbour works
Date - Until 30 December 2013
Sydney Ports Corporation Notice 36/2013 (AA703105)

Repair works on the Glebe Island Bridge (33° 52'.10 S 151° 11'.15 E) are in progress.

The eastern channel is closed to traffic and is marked by special spar light buoys, *Fl.Y.3s,* across both entrances to the channel. The western channel is open to traffic.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 200 - Aus 202 - AX 00202T

1265(T)/2013 AUSTRALIA - NEW SOUTH WALES - Newcastle - Depth information
Former Notice - 1151(T)/2013 is cancelled
Newcastle Port Corporation (AA710740)

Available depths as at 28 November 2013:

	Berth	*Metres*	*Remarks*
	Eastern Basin 1	11.5	
	Eastern Basin 2 North of Ch 450	11.6	
	Eastern Basin 2 South of Ch 450	11.5	
	Western Basin 3	11.6	
	Western Basin 4	11.6	
	Channel Berth	9.7	
	Dyke 1	12.8	
	Dyke 2	12.7	
	Dyke 4	16.5	
	Dyke 5	16.4	
	Dyke 6	5.0	
	Mayfield 4 Ch 27 to 266	11.4	
	BHP Wharf 6 to Ch 1050	7.1	
	Kooragang 2	11.6	
	Kooragang 2 North Dolphin Ch 182 to 243	11.6	
	Kooragang 2 South Dolphin Ch -92 to 00	11.3	
	Kooragang 3 Ch -40 to 00	11.8	
	Kooragang 3 Ch 00 to 220	13.1	
	Kooragang 4	16.5	
	Kooragang 5	16.5	
	Kooragang 6	16.5	
*	Kooragang 7	16.5	
	Kooragang 8	16.3	
	Kooragang 9	16.3	
*	Kooragang 10	16.2	
	Throsby 1	8.4	
	Carrington Wharf		To be sounded as and when required
	Foreshore Park Berth	5.9	
	Elgo Wharf		To be sounded as and when required
	Channels		
	Entrance Approach	17.7	
	Entrance Channel (18.0m)	18.0	
	Entrance Channel (17.4m)	17.4	
	Entrance Channel (16.8m)	16.8	
	Entrance Channel (16.2m)	16.2	

	Entrance Channel to Horseshoe	15.2
	Horseshoe	15.0
	Steelworks Channel to Swinging Basin	15.0
*	Swinging Basin	15.0
	Hunter River South Arm (Kooragang 6 to buoy 16)	15.0
	Hunter River South Arm (buoy 16 to buoy 20)	15.0
	Basin Cutting	12.6
	Basin Area to Eastern & Western Basin Berths	12.3
	Basin Area to 1 Throsby	9.4
	Stockton Crossing	3.6

* Indicates new or revised entry.

Chart temporarily affected - Aus 207 - Aus 208

QUEENSLAND

710(T)/2008 AUSTRALIA - QUEENSLAND - Moreton Bay - Spitfire Channel - Light buoys established
Former Notice - 649(T)/2008 is cancelled
Date - Until 31 December 2008
Maritime Safety Queensland Notice 389/2008 (AA345287)

Starboard lateral conical light buoys, *Fl.G.2·5s,* without topmark, exist in positions 27° 02'.73 S 153° 15'.84 E and 27° 03'.12 S 153° 16'.99 E.

Chart temporarily affected - Aus 235 - Aus 236

819(T)/2008 AUSTRALIA - QUEENSLAND - Airlie Beach - Light buoys established
Maritime Safety Queensland Notice 452(T)/2008 (AA351934)

A silt curtain exists across the southern entrance to Abel Point Marina, closing the entrance to navigation.

Special light buoys mark the location of the silt curtain in the following positions:
20° 16'.070 S 148° 42'.400 E
20° 16'.070 S 148° 42'.402 E
20° 16'.056 S 148° 42'.401 E

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

1133(T)/2009 AUSTRALIA - QUEENSLAND - Townsville - Ross Creek - Light beacons withdrawn; light buoys established
Maritime Safety Queensland Notice 624(T)/2009 (AA429766)

Light beacons *Fl.R.3s* (19° 15'.03 S 146° 49'.80 E) and *Fl.G.3s* (19° 15'.01 S 146° 49'.77 E) have been withdrawn; a port lateral light buoy, *Fl.R.3s,* and a starboard lateral light buoy, *Fl.G.3s,* exist in situ.

Chart temporarily affected - Aus 257

318(T)/2010 AUSTRALIA - QUEENSLAND - Hesket Rock - Light beacon destroyed
Maritime Safety Queensland Notice 273(T)/2010 (AA462501)

The south cardinal light beacon (20° 56'.19 S 149° 28'.98 E) has been destroyed.

Chart temporarily affected - Aus 251 - Aus 823 - Aus 824 - AX 0823E

763(T)/2010 AUSTRALIA - QUEENSLAND - Shute Harbour - Wreck
Maritime Safety Queensland Notice 568(T)/2010 (AA480151)

A wreck marked by a special light buoy, *Fl.Y.5s,* exists in position 20° 17'.76 S 148° 47'.24 E.

Chart temporarily affected - Aus 252 - Aus 253

1188(T)/2010 AUSTRALIA - QUEENSLAND - Io Reef - Light beacon destroyed; light buoy established
Former Notice - 382(T)/2010 is cancelled
Maritime Safety Queensland Notice 932(T)/2010 (AA500605)

The west cardinal light beacon (20° 41'.58 S 149° 07'.70 E) has been destroyed; a west cardinal light buoy, *Q(9)15s,* exists in situ.

Chart temporarily affected - Aus 251 - Aus 252 - Aus 824

1189(T)/2010 AUSTRALIA - QUEENSLAND - Whitsunday Group - Shaw Island - Platypus Rock - Light beacon destroyed; light buoy established
Former Notice - 511(T)/2010 is cancelled
Maritime Safety Queensland Notice 926(T)/2010 (AA500696)

The west cardinal light beacon (20° 31'.23 S 149° 02'.31 E) has been destroyed; a west cardinal light buoy, *VQ(9)10s,* exists in situ.

Chart temporarily affected - Aus 252 - Aus 254 - Aus 824

1191(T)/2010 AUSTRALIA - QUEENSLAND - Surprise Rock - Light beacon destroyed; light buoy established
Former Notice - 329(T)/2009 is cancelled
Maritime Safety Queensland Notice 929(T)/2010 (AA500615)

The isolated danger light beacon (20° 21'.3S 149° 01'.6 E) has been destroyed; an isolated danger light buoy, *Fl(2)6s,* exists in situ.

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

1193(T)/2010 AUSTRALIA - QUEENSLAND - Whitsunday Island - Reef Point - Light beacon destroyed; light buoy established
Former Notice - 446(T)/2010 is cancelled
Maritime Safety Queensland Notice 927(T)/2010 (AA500700)

The port lateral light beacon (20° 17'.45 S 148° 54'.71 E) has been destroyed; a port lateral light buoy, *Fl.R.2·5s,* exists in situ.

Chart temporarily affected - Aus 252 - Aus 253 - Aus 254

1394(T)/2010 AUSTRALIA - QUEENSLAND - Whitsundays - The Narrows - Buoy off station
Maritime Safety Queensland Notice 1042(T)/2010 (AA508738)

The port lateral buoy (20° 04'.34 S 148° 54'.17 E) is off station.

Chart temporarily affected - Aus 254

418(T)/2011 AUSTRALIA - QUEENSLAND - Gladstone - Anchorage area
Former Notice - 315(T)/2011 is cancelled
Maritime Safety Queensland Notice 318(T)/2011 (AA526389)

A small craft anchorage exists within an area bounded by the following positions:
23° 45'·0 S 151° 09'·8 E
23° 45'·0 S 151° 10'·0 E
23° 46'·4 S 151° 10'·4 E
23° 46'·4 S 151° 10'·0 E.

Mooring buoys exist within the area.

Permission must be obtained from Gladstone Port Corporation prior to anchoring or mooring within the area.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 245

470(T)/2011 AUSTRALIA - QUEENSLAND - Gladstone - North Passage Island to Redcliffe Island - Scientific instruments
Maritime Safety Queensland Notice 376(T)/2011 (AA531285)

Subsurface scientific instruments exist in positions:
23° 45'.91 S 151° 10'.93 E
23° 45'.81 S 151° 11'.11 E
23° 45'.33 S 151° 10'.48 E
23° 45'.23 S 151° 10'.66 E
23° 42'.44 S 151° 08'.84 E
23° 42'.34 S 151° 09'.05 E
23° 41'.39 S 151° 08'.20 E
23° 41'.29 S 151° 08'.41 E.

Chart temporarily affected - Aus 245 - Aus 819

648(T)/2011 AUSTRALIA - QUEENSLAND - Moreton Bay - Bramble Bay - Bridge construction
Former Notice - 465(T)/2011 is cancelled

Date - Until 21 July 2011
Maritime Safety Queensland Notices 171(T)/2008, 164(T)/2009, 166(T)/2009, 756(T)/2010, 393(T)/2011, 568(T)/2011 (AA323151, AA395818, AA396377, AA492668, AA532382, AA540981)

Construction of the Houghton Highway Bridge is in progress in position 27° 17'.01 S 153° 03'.89 E (WGS84 datum).

A falsework bridge exists to the east of the existing bridge. The seaward limit of the falsework bridge will be marked by lights, Q.Y.

Navaids exist as follows:

Position	*Remarks*
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, Fl.G.2•5s
27° 16'.60 S 153° 04'.26 E	lit port buoy, Fl.R.2•5s
27° 16'.57 S 153° 04'.11 E	lit starboard buoy, Fl.G.2•5s
27° 16'.59 S 153° 04'.09 E	lit port buoy, Fl.R.2•5s

Works to remove temporary lit piles adjacent to the channel in Hays Inlet (27° 15'.82 S 153° 04'.70 E) are in progress. The channel will be closed to traffic until 21 July 2011.

Mariners should navigate with caution in the area.

Chart temporarily affected - Aus 236

757(T)/2011 AUSTRALIA - QUEENSLAND - Laguna Quays - Lights unlit; light beacons damaged
Former Notice - 444(T)/2010 is cancelled
Maritime Safety Queensland Notice 686(T)/2011 (AA546594)

Light beacons marking the entrance to Laguna Quays (20° 36'.03 S 148° 41'.21 E) may be damaged or unlit.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 252

758(T)/2011 AUSTRALIA - QUEENSLAND - Laguna Quays - Shoaling
Former Notice - 1052(T)/2006 is cancelled
Maritime Safety Queensland Notice 685/2011 (AA546595)

Shoaling exists within the entrance channel to Laguna Quays (20° 36'.03 S 148° 41'.21 E).

Mariners are advised to seek local knowledge prior to transiting the marina entrance and to navigate with caution in the area.

Chart temporarily affected - Aus 252

826(T)/2011 AUSTRALIA - QUEENSLAND - Mourilyan - Depth information
Maritime Safety Queensland Notice 702(T)/2011 (AA547518)

Available depths as at 29 July 2011:

	Metres
Departure Channel	9.6
Inner Channel	9.6
Swing Basin	6.7
Sugar Berth	10.1

* Indicates revised entry.

Chart temporarily affected - Aus 258

872(T)/2011 AUSTRALIA - QUEENSLAND - Bait Reef - Light beacon destroyed
Maritime Safety Queensland Notice 750(T)/2011 (AA549635)

The starboard lateral beacon (19° 48'.52 S 149° 03'.77 E) has been destroyed; a special buoy exists in situ.

Chart temporarily affected - Aus 254 - Aus 825

1020(T)/2011 AUSTRALIA - QUEENSLAND - Moreton Bay - Wynnum - Wreck; light buoy
Maritime Safety Queensland Notice 871/2011 (AA556300)

A wreck marked by a special light buoy, *Fl.Y.2·5s,* exists in position 27° 25'.90 S 153° 10'.73 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 236

1091(T)/2011 AUSTRALIA - QUEENSLAND - Hay Point - Scientific instruments
Maritime Safety Queensland Notice 1018(T)/2011 (AA562002)

Special light buoys, *Q.Y,* exist in positions 21° 16'.04 S 149° 18'.09 E and 21° 24'.90 S 149° 20'.17 E.

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

1204(T)/2011 AUSTRALIA - QUEENSLAND - Gladstone - Rich Rocks - Light buoy
Maritime Safety Queensland Notice 1078(T)/2011 (AA565735)

A special light buoy, *Fl.Y.4s,* exists in position 23° 49'.92 S 151° 16'.55 E.

Chart temporarily affected - Aus 244 - Aus 245

1210(T)/2011 AUSTRALIA - QUEENSLAND - Airlie Beach - Abel Point - Obstructions
Maritime Safety Queensland Notice 1123(T)/2011 (AA567586)

Underwater obstructions, marked by special buoys, exist in the following positions:
20° 15'.87 S 148° 42'.60 E
20° 15'.88 S 148° 42'.60 E
20° 15'.87 S 148° 42'.56 E.

Chart temporarily affected - Aus 268

59(T)/2012 AUSTRALIA - QUEENSLAND - Thursday Island - Depth information
Maritime Safety Queensland Notice 1(T)/2012 (AA574953)

Available depths as at 2 January 2012:

	Metres
Hovell Bar	3.2
Main Wharf	3.1 (4.1m alongside wharf)
Caltex Wharf	4.1
Engineers Wharf	3.5
Boat Channel	4.6
Inner Harbour	4.8

* Indicates revised entry.

Chart temporarily affected - Aus 293 - Aus 299

460(T)/2012 AUSTRALIA - QUEENSLAND - Hook Island - Cockatoo Point - Light beacon destroyed
Maritime Safety Queensland Notice 393(T)/2012 (AA596297)

The light beacon, *Fl.R.2·5s* (20° 04'.71 S 148° 54'.05 E) has been destroyed.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 252 - Aus 254

600(T)/2012 AUSTRALIA - QUEENSLAND - Moreton Bay - Scarborough - Shoaling
Maritime Safety Queensland Notice 609(T)/2012 (AA604629)

Shoaling with a least depth of *1.7m* exists on the northern toeline adjacent to beacon No8 (27° 11'·62 S 153° 06'·18 E). A least depth of *2m* exists between the entrance beacons (27° 10'.96 S 153° 06'.15 E) and the western boat ramp.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 236

602(T)/2012 AUSTRALIA - QUEENSLAND - Curtis Channel - Wreck
Maritime Safety Queensland Notice 579(T)/2012 (AA603887)

A wreck exists in position 24° 08'.89 S 152° 12'.12 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 818

645(T)/2012 AUSTRALIA - QUEENSLAND - Moreton Bay - Rainbow Channel - Light beacon withdrawn
Maritime Safety Queensland Notice 655(T)/2012 (AA607798)

The starboard light beacon, *Fl.G.4s* (27° 26'.99 S 153° 24'.67 E), has been temporarily withdrawn.

Chart temporarily affected - Aus 236

694(T)/2012 AUSTRALIA - QUEENSLAND - Gold Coast Seaway - Shoaling
Former Notice - 1142(T)/2011 is cancelled
Maritime Safety Queensland Notice 705(T)/2012 (AA611629)

Available depths as at 4 July 2012:

	Metres
Centre line leads (255°)	3.6
Southern approach leads (291°)	3.8

A shoal area, with a least depth of *3.6m,* is drifting northwards immediately east of the southern break wall towards the centreline leads. Deeper water, *5.5m,* is found by leaving the centre line leads open to the north.

Mariners are advised to navigate with caution when using the southern approach leads as breaking waves may be experienced when seas rise above 1.4m.

Chart temporarily affected - Aus 230

737(T)/2012 AUSTRALIA - QUEENSLAND - Gold Coast Seaway - Shoaling
Former Notice - 695(T)/2012 is cancelled
Maritime Safety Queensland Notice 706(T)/2012 (AA611628)

Shoaling, with a least depth of *2.3m,* exists in the North Channel between 27° 55'.86 S 153° 25'.30 E and 27° 55'.66 S 153° 25'.09 E.

Shoaling, with a least depth of *3.5m,* exists in the South Channel between 27° 56'.20 S 153° 25'.49 E and 27° 56'.39 S 153° 25'.26 E.

Deeper water to *3.9m* is found to the west of the channels centre line.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 230

740(T)/2012 AUSTRALIA - QUEENSLAND - Moreton Bay - Coochiemudlo Island - Light beacon
Maritime Safety Queensland Notice 768(T)/2012 (AA613763)

The special light beacon, *Fl.Y.2·5s* (27° 34'.78 S 153° 20'.37 E), has been temporarily replaced by a special light buoy, *Fl.Y.2.5s,* in situ.

Chart temporarily affected - Aus 236

801(T)/2012 AUSTRALIA - QUEENSLAND - Great Sandy Strait - Light beacon destroyed
Maritime Safety Queensland Notice 829(T)/2012 (AA616820)

The light beacon, *Fl.R.3s* (25° 31'.74 S 152° 56'.67 E), has been destroyed.

Chart temporarily affected - Aus 240 - Aus 241

859(T)/2012 AUSTRALIA - QUEENSLAND - Dent Island - Light beacon unlit; light buoy established
Former Notice - 508(T)/2012 is cancelled
Maritime Safety Queensland Notice 869(T)/2012 (AA618556)

The light beacon, *Fl.G.2.5s* (20° 20'.33 S 148° 56'.17 E) is unlit; a starboard lateral light buoy, *Fl.G.2·5s,* exists in situ.

Chart temporarily affected - Aus 253 - Aus 254

862(T)/2012 AUSTRALIA - QUEENSLAND - Hinchinbrook Channel - Navaids
Former Notice - 204(T)/2012 is cancelled
Maritime Safety Queensland (AA616388)

The light beacon *Fl.R.2·5s* (18° 28'.26 S 146° 13'.01 E) has been destroyed and light buoy *Q.G* (18° 30'.19 S 146° 18'.73 E) is off station.

Chart temporarily affected - Aus 259 - Aus 267

950(T)/2012 AUSTRALIA - QUEENSLAND - Gladstone - Light buoys
Former Notice - 609(T)/2011 is cancelled
Maritime Safety Queensland Notice 945(T)/2012 (AA624547)

Special light buoys, *Fl.Y.2.5s* exists in positions 23° 49'.45 S 151° 14'.60 E and 23° 49'.59 S 151° 14'.81 E.

Chart temporarily affected - Aus 244 - Aus 245

1085(T)/2012 AUSTRALIA - QUEENSLAND - Moreton Bay - Peel Island - Lazaret Gutter - Beacon destroyed
Maritime Safety Queensland Notice 1141(T)/2012 (AA632279)

The starboard beacon (27° 29'.18 S 153° 21'.06 E) has been destroyed.

Chart temporarily affected - Aus 236

1088(T)/2012 AUSTRALIA - QUEENSLAND - Hay Point - Exclusion zone; light buoys
Former Notice - 999(T)/2012 is cancelled
Maritime Safety Queensland Notice 1001(T)/2012 (AA626309, AA632277)

An exclusion zone exists in an area bounded as follows:

Position	*Remarks*
21° 15'.86 S 149° 18'.78 E	
21° 15'.88 S 149° 18'.83 E	
21° 16'.16 S 149° 19'.02 E	special light buoy, *Fl.Y.4s*
21° 16'.37 S 149° 18'.63 E	special light buoy, *Q.Y*
21° 16'.08 S 149° 18'.45 E	special light buoy, *Q.Y*
21° 16'.39 S 149° 17'.87 E	
21° 16'.24 S 149° 17'.54 E	
21° 15'.70 S 149° 18'.55 E	
21° 15'.53 S 149° 18'.47 E	
21° 15'.48 S 149° 18'.58 E.	

Chart temporarily affected - Aus 249 - Aus 250 - Aus 823

1205(T)/2012 AUSTRALIA - QUEENSLAND - Gladstone - Bushy Islet - Scientific instrument
Former Notice - 417(T)/2011 is cancelled
Date - Until 15 June 2014
Maritime Safety Queensland (AA639719)

A special light buoy, *Fl.Y.3s,* exists in position 23° 50'.78 S 151° 20'.49 E.

Chart temporarily affected - Aus 244 - Aus 245

1209(T)/2012 AUSTRALIA - QUEENSLAND - Whitsunday Island - Craig Point - Wreck
Maritime Safety Queensland Notice 1243(T)/2012 (AA639290)

A wreck marked by a special light buoy, *Q.Y,* exists in position 20° 18'.58 S 149° 02'.07 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 252 - Aus 253

1210(T)/2012 AUSTRALIA - QUEENSLAND - Magnetic Island - Scientific instrument
Former Notice - 1036(T)/2011 is cancelled
Date - Until 5 November 2013
Maritime Safety Queensland Notice 1192(T)/2012 (AA636987)

A scientific instrument marked by a special light buoy, *Fl.Y.3s,* exists in position 19° 09'.32 S 146° 52'.57 E.

Chart temporarily affected - Aus 256

1265(T)/2012 AUSTRALIA - QUEENSLAND - Moreton Bay - Manly - Light beacon destroyed
Maritime Safety Queensland Notice 1301(T)/2012 (AA642817)

No3 light beacon, *Fl.G.4s* (27° 26'.87 S 153° 11'.93 E), has been destroyed; a starboard light buoy, *Q.G,* exists in situ.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 236

1274(T)/2012 AUSTRALIA - QUEENSLAND - Port Douglas - Depth information
Former Notice - 463(T)/2012 is cancelled
Maritime Safety Queensland Notice 1297(T)/2012 (AA642027)

Available depths as at 6 December 2012:

	Metres
*Outer Channel	1.4
Inner Channel	2.1
Boat ramp to marina	1.9

*Indicates revised entry.

Chart temporarily affected - Aus 270

53(T)/2013 AUSTRALIA - QUEENSLAND - Round Hill Head - Wreck
Maritime Safety Queensland Notices 1321(T)/2012, 1342(T)/2012 (AA643596, AA644831))

A wreck marked by a special light buoy, *Fl.Y.2·5s,* exists in position 24° 10'.13 S 151° 52'.75 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 818

55(T)/2013 AUSTRALIA - QUEENSLAND - Schooner Rock - Light beacon destroyed; light buoy established
Former Notice - 459(T)/2012 is cancelled
Maritime Safety Queensland Notice 1322(T)/2012 (AA643792)

The north cardinal light beacon (20° 54'.04 S 149° 25'.91 E) has been destroyed; a north cardinal light buoy, *Q,* exists in situ.

Chart temporarily affected - Aus 251 - Aus 824

105(T)/2013 AUSTRALIA - QUEENSLAND - Bundaberg - Obstruction northeastwards
Maritime Safety Queensland Notice 23(T)/2013 (AA647424)

An obstruction exists in position 24° 37'.05 S 152° 37'.54 E. A 3700m radius exclusion zone exists around the obstruction.

Chart temporarily affected - Aus 243 - Aus 817 - Aus 818

149(T)/2013 AUSTRALIA - QUEENSLAND - Pumicestone Channel - Navaids destroyed or off station; depths
Maritime Safety Queensland Notice 80(T)/2013 (AA649223)

Navaids in Pumicestone Channel may be destroyed or off station due to recent flooding.

Depths may not be consistent with charted information.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 235

158(T)/2013 AUSTRALIA - QUEENSLAND - Mackay - Light beacon destroyed
Former Notice - 857(T)/2012 is cancelled
Maritime Safety Queensland Notice 75(T)/2013 (AA649210)

The port lateral light beacon, *Fl.R.2·5s* (21° 09'.00 S 149° 13'.18 E), has been destroyed.

Chart temporarily affected - Aus 249 - AX 00249S

161(T)/2013 AUSTRALIA - QUEENSLAND - Hinchinbrook Channel - Light buoy off station
Maritime Safety Queensland Notice 119(T)/2013 (AA650921)

No16 port lateral light buoy, *Q.R* (18° 28'.88 S 146° 13'.41 E), is off station.

Chart temporarily affected - Aus 259

167(T)/2013 AUSTRALIA - QUEENSLAND - Weipa - Depth information
Former Notice - 1002(T)/2012 is cancelled
Maritime Safety Queensland Notice 100(T)/2013 (AA649386)

Available depths as at 1 February 2013:

	Metres
* Weipa Approaches	11.5
* South Channel	11.5
Departure Channel	11.3
Cora Bank South Channel	7.3
Humbug Point Approaches	8.6
Humbug Point Berth	9.5
Evans Landing	9.6
Lorim Point East	12.3
Lorim Point West	12.3

*Indicates revised entry

Chart temporarily affected - Aus 4

203(T)/2013 AUSTRALIA - QUEENSLAND - Hervey Bay - Big Woody Island - Light beacon destroyed
Maritime Safety Queensland Notice 164(T)/2013 (AA653342)

The port lateral light beacon, *Q.R* (25° 16'.03 S 152° 55'.67 E), has been destroyed; an unlit buoy exists in situ.

Chart temporarily affected - Aus 241 - Aus 817

204(T)/2013 AUSTRALIA - QUEENSLAND - Gladstone - Depth information
Former Notice - 348(T)/2012 is cancelled
Maritime Safety Queensland Notice 142(T)/2013 (AA653496)

Available depths as at 12 February 2013:

	Metres
Sea Channels:	
Wild Cattle Cutting	16.1
* Boyne Island Cutting	16.3
Boyne Island Extension Channel	9.0
Golding Cutting	16.1
* South Bypass Channel	7.4
Gatcombe Channel	16.3
* Gatcombe Bypass Channel	13.4
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	10.5
Targinie Swing Basin East	10.6
* Targinie Swing Basin West	8.9
Berths:	
Boyne Smelter Wharf	15.0
* South Trees East Wharf	13.8
* South Trees West Wharf	13.0
Barney Point Wharf	(east approach) 13.5
Barney Point Wharf	(west approach) 11.5
Barney Point Wharf	15.0
* Auckland Point No 1 Wharf	10.6
* Auckland Point No 2 Wharf	10.6
* Auckland Point No 3 Wharf	11.4
* Auckland Point No 4 Wharf	11.3
* Clinton No 1 Wharf	19.2
* Clinton No 2 Wharf	18.4
* Clinton No 3 Wharf	18.6
* Clinton No 4 Wharf	19.1
* Fishermans Landing Wharf No 1	13.6
* Fishermans Landing Wharf No 2	13.3
* Fishermans Landing Wharf No 4	10.9
* Fishermans Landing Wharf No 5	10.9

* Indicates revised entry.

Chart temporarily affected - Aus 244 - Aus 245 - Aus 246

206(T)/2013 AUSTRALIA - QUEENSLAND - Gladstone - Wiggins Islands - Exclusion zone

Former Notice - 1138(T)/2012 is cancelled
Date - Until 31 January 2014
Maritime Safety Queensland Notice 177(T)/2013 (AA654021)

An exclusion zone marked by special light buoys, *Fl.Y.2·5s,* exists in an area bounded by the following positions:
23° 49'.27 S 151° 12'.49 E
23° 49'.10 S 151° 12'.56 E
23° 48'.85 S 151° 12'.66 E
23° 48'.59 S 151° 12'.76 E
23° 48'.23 S 151° 12'.89 E
23° 48'.41 S 151° 13'.45 E
23° 48'.80 S 151° 13'.40 E
23° 48'.89 S 151° 13'.25 E
23° 49'.14 S 151° 12'.93 E
23° 49'.21 S 151° 12'.87 E
23° 49'.27 S 151° 12'.83 E.

Chart temporarily affected - Aus 245

207(T)/2013 AUSTRALIA - QUEENSLAND - Gladstone - Calliope River - Light buoys

Former Notice - 54(T)/2013 is cancelled
Maritime Safety Queensland Notice 178(T)/2013 (AA654022)

Light buoys exist as follows:

Number	*Position*	*Characteristic*
CR1	23° 48'.66 S 151° 13'.79 E	*Fl.G.2•5s*
CR2	23° 48'.70 S 151° 13'.89 E	*Fl.R.2•5s*
CR3	23° 48'.87 S 151° 13'.74 E	*Fl.G.2•5s*
CR4	23° 48'.84 S 151° 13'.82 E	*Fl.R.2•5s*
CR5	23° 48'.95 S 151° 13'.67 E	*Fl.G.2•5s*
CR6	23° 49'.29 S 151° 13'.25 E	*Fl.R.2•5s*
CR7	23° 49'.09 S 151° 13'.39 E	*Fl.G.2•5s*
CR9	23° 49'.19 S 151° 13'.22 E	*Fl.G.2•5s*
CR11	23° 49'.26 S 151° 13'.11 E	*Fl.Y.2•5s*
CR13	23° 49'.36 S 151° 13'.04 E	*Fl.Y.2•5s*.

Chart temporarily affected - Aus 244 - Aus 245

210(T)/2013 AUSTRALIA - QUEENSLAND - Port Alma - Depth information
Former Notice - 209(T)/2011 is cancelled
Maritime Safety Queensland Notice 143(T)/2013 (AA653498)

Available depths as at 12 February 2013:

Berth	*Metres*
* Balaclava Leads	7.5
Kazatch Leads	7.0
* Eupatoria Leads	7.7
* Shell Point Leads	6.8
* Swing Basin	5.6
* Berth No 1	9.0
* Berth No 2	9.0
* Berth No 3	9.0

* Indicates revised entry.

Chart temporarily affected - Aus 265

211(T)/2013 AUSTRALIA - QUEENSLAND - Fitzroy River - Wreck
Maritime Safety Queensland Notice 166(T)/2013 (AA653574)

A stranded wreck exists in position 23° 25'.58 S 150° 35'.60 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 819

213(T)/2013 AUSTRALIA - QUEENSLAND - Whitehaven Bay - Light beacon destroyed
Former Notice - 159(T)/2013 is cancelled
Maritime Safety Queensland Notice 169(T)/2013 (AA653550)

The north cardinal light beacon, *Q* (20° 17'.53 S 149° 03'.35 E), has been destroyed; a special light buoy, *Q.Y,* exists in situ.

Chart temporarily affected - Aus 252 - Aus 253

214(T)/2013 AUSTRALIA - QUEENSLAND - Abbot Point - Scientific instruments
Date - Until 30 November 2013
Maritime Safety Queensland Notice 176(T)/2013 (AA653795)

Special light buoys, *Fl.Y.4s* , exist in the following positions:
19° 54'.26 S 148° 08'.54 E
19° 52'.21 S 148° 06'.25 E
19° 48'.38 S 148° 01'.13 E
19° 50'.59 S 148° 00'.42 E
19° 53'.51 S 148° 00'.37 E
19° 51'.11 S 147° 57'.29 E
19° 49'.11 S 147° 54'.35 E.

Chart temporarily affected - Aus 255 - Aus 826

215(T)/2013 AUSTRALIA - QUEENSLAND - Oyster Point - Shoaling; obstructions
Maritime Safety Queensland Notice 151(T)/2013 (AA652929)

Shoaling and obstructions exist in Port Hinchinbrook Marina (18° 16'.71 S 146° 02'.70 E) and Grande Canal (18° 16'.88 S 146° 02'.80 E).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 258

264(T)/2013 AUSTRALIA - QUEENSLAND - Gladstone - Friend Point to Laird Point - Anchoring prohibited; pipeline
Date - Until 31 March 2013
Maritime Safety Queensland Notice 206(T)/2013 (AA655688)

Anchoring is prohibited in an area bounded by the following positions:
23° 45'.04 S 151° 09'.39 E

23° 44'.98 S 151° 10'.62 E
23° 45'.08 S 151° 10'.71 E
23° 45'.15 S 151° 09'.27 E.

A pipeline exists between Friend Point and Laird Point.

Chart temporarily affected - Aus 245

302(T)/2013 AUSTRALIA - QUEENSLAND - Moreton Bay - Garnet Rock - Light beacon destroyed; light buoy established
Former Notice - 148(T)/2013 is cancelled
Maritime Safety Queensland Notice 240(T)/2013 (AA658521), Maritime Safety Queensland Notice 238(T)/2013 (AA685522)

The starboard light beacon, *Fl.G.6s* (27° 14'.50 S 153° 07'.40 E) has been destroyed. A starboard lateral light buoy, *Fl.G.3s,* exists in situ.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 236

400(T)/2013 AUSTRALIA - QUEENSLAND - Daydream Island - Lights unlit
Former Notice - 305(T)/2013 is cancelled
Maritime Safety Queensland Notice 317(T)013 (AA667369)

The leading lights, *2F.Bu.5M (F Day)* (20° 15'.09 S 148° 48'.92 E), are unlit.

Chart temporarily affected - Aus 252 - Aus 253

401(T)/2013 AUSTRALIA - QUEENSLAND - Upstart Bay - Light buoy off station
Maritime Safety Queensland Notice 297(T)/2013 (AA666335)

The light buoy, *Fl.R.2·5s* , (19° 49'.44 S 147° 42'.33 E) is off station.

Chart temporarily affected - Aus 826

463(T)/2013 AUSTRALIA - QUEENSLAND - Great Sandy Strait - Wreck
Maritime Safety Queensland Notice 348(T)/2013 (AA669341)

A wreck exists in position 25° 32'.04 S 152° 55'.49 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 240 - Aus 241

510(T)/2013 AUSTRALIA - QUEENSLAND - The Broadwater - South Channel - Dredging operations
Former Notice - 199(T)/2013 is cancelled
Date - Until 12 July 2013
Maritime Safety Queensland Notice 380(T)/2013 (AA672047)

The dredge *Dogo* and support vessels are conducting dredging operations between light beacons GS4 (27° 56'.20 S 153° 25'.49 E) and SC2 (27° 56'.40 S 153° 25'.26 E).

A floating pipeline exists in the channel and temporary navaids will be established to guide vessels around the area.

The dredge will monitor VHF Ch 16.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 230

512(T)/2013 AUSTRALIA - QUEENSLAND - North Keppel Island - Wreck
Maritime Safety Queensland Notice 379(T)/2013 (AA671710)

A wreck marked by a special buoy exists in position 23° 03'.80 S 150° 53'.24 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 820 - AX 00820S

559(T)/2013 AUSTRALIA - QUEENSLAND - Cape Cleveland - Wreck
Maritime Safety Queensland Notice 407(T)/2013 (AA674848)

A wreck marked by a special light buoy, *Fl.Y.2s,* exists in position 19° 10'.51 S 146° 59'.80 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 256 - Aus 827

560(T)/2013 AUSTRALIA - QUEENSLAND - Singleton Rock to Reeves Shoal - AIS trial
Former Notice - 513(T)/2013 is cancelled
Date - Until 15 August 2013
Australian Maritime Safety Authority Final ATH 10/2013, 11/2013, 12/2013 (AA668138, AA668136, AA668137, AA670031)

Virtual AIS units exist as follows:

MMSI	*Position (WGS84 datum)*	*Remarks*
995036057	10° 31'.62 S 142° 26'.80 E	South cardinal mark
995036058	11° 25'.35 S 142° 56'.25 E	Isolated danger mark
995036059	14° 09'.70 S 144° 35'.76 E	Isolated danger mark

Chart temporarily affected - Aus 270 - Aus 292 - Aus 293 - Aus 833 - Aus 835 - Aus 839 - Aus 841

599(T)/2013 AUSTRALIA - QUEENSLAND - Bundaberg - Burnett River - Depths
Former Notice - 152(T)/2013 is cancelled
Maritime Safety Queensland Notice 450/2013 (AA677280)

Depths may not be consistent with charted information.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 242

602(T)/2013 AUSTRALIA - QUEENSLAND - Hinchinbrook Channel - Cardwell - Wreck
Former Notice - 1197(T)/2010 is cancelled
Maritime Safety Queensland Notice 443(T)/2012 (AA677081)

A wreck marked by a special light buoy, *Fl.Y.2·5s,* exists in position 18° 14'.71 S 146° 01'.66 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 259 - Aus 828

648(P)/2013 AUSTRALIA - QUEENSLAND - Bundaberg - Burnett River - Navaids established
Date - On or about 30 September 2013
Maritime Safety Queensland Notice 470(T)/2013 (AA678944)

Light beacons have been established as follows:

Name	*Position*	*Characteristic*	*Remarks*
No14	24° 45'.303 S 152° 24'.148 E	*Fl.R.2s*	
No15 (MRDF)	24° 45'.243 S 152° 24'.027 E	*Q (F Day) & Fl.G.4s*	Front lead
MRDR	24° 45'.225 S 152° 24'.091 E	*Iso.2s (F Day)*	Rear lead
No17 (IRDF)	24° 45'.387 S 152° 23'.392 E	*Q (F Day) & Fl.G.4s*	Front lead
IRDR	24° 45'.315 S 152° 23'.483 E	*Iso.2s (F Day)*	Rear lead
No18	24° 45'.526 S 152° 23'.281 E	*Fl.R.2s*	No20 renumbered
No19 (MRAF)	24° 45'.497 S 152° 23'.161 E	*Q (F Day) & Fl.G.4s*	Front lead
MRAR	24° 45'.546 S 152° 22'.995 E	*Iso.2s (F Day)*	Rear lead
No20	24° 45'.756 S 152° 22'.996 E	*Fl.R.4s*	No22 renumbered
No21 (IRAF)	24° 45'.847 S 152° 22'.813 E	*Q (F Day) & Fl.G.4s*	Front lead
IRAR	24° 45'.900 S 152° 22'.746 E	*Iso.2s (F Day)*	Rear lead
No22	24° 45'.833 S 152° 22'.949 E	*Fl.R.4s*	No24 renumbered
No24	24° 45'.994 S 152° 22'.893 E	*Fl.R.4s*	No26 renumbered

Light buoys have been established as follows:

Name	*Position*	*Characteristic*
No23	24° 46'.052 S 152° 22'.758 E	*Fl.Y.2·5s*
No25	24° 46'.187 S 152° 22'.730 E	*Fl.Y.2·5s*
No27	24° 46'.251 S 152° 22'.736 E	*Fl.Y.2·5s*
No29	24° 46'.288 S 152° 22'.773 E	*Fl.Y.2·5s*
No31	24° 46'.317 S 152° 22'.821 E	*Fl.Y.2·5s.*

Note: a new edition of Aus 242 will be published in due course.

Chart which will be affected - Aus 242

651(T)/2013 AUSTRALIA - QUEENSLAND - Muddy Bay - Harbour works
Date - Until 20 October 2013
Maritime Safety Queensland Notice 497(T)/2013 (AA680645)

Works associated with the development of the marina are in progress in the vicinity of 20° 16'.24 S 148° 43'.50 E. The construction area is marked by special buoys.

Chart temporarily affected - Aus 253 - Aus 268

653(T)/2013 AUSTRALIA - QUEENSLAND - Cooktown - Depth information
Former Notice - 751(T)/2012 is cancelled
Maritime Safety Queensland Notice 501(T)/2013 (AA680585)

Available depths as at 24 June 2013:

	Metres
* Entrance Channel	1.7
* Inner Channel	2.8
* Public Wharf	2.6
* Swing Basin	2.6

* Indicates revised entry.

Chart temporarily affected - Aus 270

703(T)/2013 AUSTRALIA - QUEENSLAND - Boyne River - Shoaling; navaids
Former Notice - 415(T)/2011 is cancelled
Maritime Safety Queensland Notice 529(T)/2013 (AA682825)

Shoaling exists within the entrance and approach channel to Boyne River (23° 56'.5 S 151° 21'.3 E).

A special light buoy, *Fl.Y.2·5s,* exists in position 23° 55'.64 S 151° 22'.06 E.

No5 starboard beacon (23° 55'.85 S 151° 21'.55 E) has been altered to a port beacon and renumbered No6.

No1, No3, No9 and No10 beacons have been removed and lateral buoys exist in situ.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 246

704(T)/2013 AUSTRALIA - QUEENSLAND - Gladstone - East Banks - Scientific instruments
Date - Until 4 July 2014
Maritime Safety Queensland Notice 524(T)/2013 (AA682836)

Scientific instruments marked by special light buoys, *Q.Y,* exist in positions
23° 52'.06 S 151° 29'.30 E and 23° 51'.60 S 151° 26'.59 E.

Chart temporarily affected - Aus 246 - Aus 819

709(T)/2013 AUSTRALIA - QUEENSLAND - Port Alma - Scientific instruments
Date - Until 4 July 2014
Maritime Safety Queensland Notice 525(T)/2013 (AA682840)

Scientific instruments marked by special light buoys, *Fl.Y.3s,* exist in positions
23° 34'.10 S 150° 51'.53 E and 23° 31'.59 S 150° 55'.39 E.

Chart temporarily affected - Aus 247 - Aus 265

766(T)/2013 AUSTRALIA - QUEENSLAND - Moreton Bay - Deception Bay - Dredging operations
Former Notice - 342(T)/2013 is cancelled
Date - Until 28 February 2014
Maritime Safety Queensland Notices 243(T)/2013, 563(T)/2013 (AA662217, AA686321)

The dredge *Ken Harvey* and support vessels MT *Sealion* and MT *Turtle* and two spoil barges are conducting dredging operations in the vicinity of 27° 11'.42 S 153° 05'.61 E.

Two lit orange mooring buoys exist in positions 27° 11'.03 S 153° 05'.39 E and 27° 11'.03 S 153° 05'.45 E.

No4 light beacon (27° 11'.81 S 153° 05'.62 E) has been removed and a port lateral light buoy, *Q.R*, has been established in situ.

All vessels will display appropriate lights and shapes and monitor VHF Ch 12.

The dredge will be moored in the channel and vessels transiting the channel will be required to contact the dredger on VHF Ch 12 or mobile 0408 197 705 to request side mooring wires be lowered.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 236

768(T)/2013 AUSTRALIA - QUEENSLAND - Trinity Inlet to Haycock Island - Scientific instruments
Date - Until 31 July 2014
Maritime Safety Queensland Notice 551(T)/2013 (AA686131)

Subsurface scientific instruments exist in positions:
16° 45'.30 S 145° 42'.55 E
16° 48'.28 S 145° 44'.72 E
16° 51'.24 S 145° 54'.84 E
16° 51'.75 S 145° 50'.50 E
16° 53'.51 S 145° 47'.11 E
16° 57'.71 S 145° 47'.77 E.

Chart temporarily affected - Aus 262 - Aus 263 - Aus 264 - Aus 830 - AX 63262 - AXA 0830T

814(T)/2013 AUSTRALIA - QUEENSLAND - Magnetic Island - Nelly Bay - Obstruction
Maritime Safety Queensland Notice 602(T)/2013 (AA688518)

An obstruction exists in position 19° 09'.57 S 146° 51'.29 E.

Chart temporarily affected - Aus 256

818(T)/2013 AUSTRALIA - QUEENSLAND - Townsville - Ross River - Harbour works
Date - Until 16 September 2013
Maritime Safety Queensland Notice 580(T)/2013 (AA688012)

Harbour works associated with the upgrade of the boat ramp (19° 16'.83 S 146° 49'.55 E) are in progress.

A silt curtain marked by special light buoys, Fl.Y.4s, exists around the boat ramp. Diving operations will be conducted within the area closed off by the silt curtain.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 257

821(T)/2013 AUSTRALIA - QUEENSLAND - Trinity Bay - Light buoy withdrawn
Maritime Safety Queensland Notice 605(T)/2013 (AA688713)

The safe water light buoy, *LFl.10s* (16° 18'.76 S 145° 27'.19 E), has been temporarily withdrawn.

Chart temporarily affected - Aus 831

861(T)/2013 AUSTRALIA - QUEENSLAND - Cairns - Depth information
Former Notice - 761(T)/2013 is cancelled
Maritime Safety Queensland Notice 641(T)/2013 (AA690652)

Available depths as of 14 August 2013:

		Metres	*Remarks*
*	Entrance Channel	8.3	
Crystal Swing Basin at:			
	360 metre diameter	6.8	
	380 metre diameter	6.4	
Swing Basin at:			
	310 metre diameter	8.7	
	320 metre diameter	7.8	
	Marlin Marina	4.2	
Berths:			
	No 1	8.4	
	No 2	8.5	
	No 3	8.4	
	No 4	8.4	
	No 5	8.2	
	No 6	8.1	between 500 metres and 550 metres
	No 6	7.7	between 550 metres and 600 metres
	No 7	9.9	
	No 8	10.0	
	No 10	9.3	
	No 12	10.5	
	Smiths Creek 1	4.7	

* Indicates revised entry.

Chart temporarily affected - Aus 262 - Aus 263 - Aus 264 - Aus 830 - AXA 0830T

862(T)/2013 AUSTRALIA - QUEENSLAND - Clump Point - Harbour works
Date - Until 30 September 2013
Maritime Safety Queensland Notice 614(T)/2013 (AA690700)

Works associated with the removal of a jetty and construction of a new one are in progress in the vicinity of position 17° 51'.02 S 146° 06'.39 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 258 - Aus 829

908(T)/2013 AUSTRALIA - QUEENSLAND - Brisbane River - Fisherman Islands - Harbour works
Date - Until 18 October 2013
Maritime Safety Queensland Notice 698(T)/2013 (AA694209)

Harbour works are in progress in position 27° 23'.10 S 153° 09'.63 E.

The barge *Serinia* is on site and will display appropriate lights and shapes.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 237

970(T)/2013 AUSTRALIA - QUEENSLAND - Bundaberg - Depth information
Former Notice - 598(T)/2013 is cancelled
Maritime Safety Queensland Notice 730(T)/2013 (AA695781)

Available depths as at 12 September 2013:

		Metres
	Sea Reach	6.5
	Middle Reach	6.5
	Inner Reach	6.5
	Swing Basin	5.5
*	Oil Berth	8.0
	BST Berth	8.7

* Deep draught departure channel 8.6
* Indicates revised entry.

Chart temporarily affected - Aus 242 - Aus 243

972(T)/2013 AUSTRALIA - QUEENSLAND - Cairns - Scientific instruments
Former Notice - 715(T)/2013 is cancelled
Date - Until 28 February 2014
Maritime Safety Queensland Notice 741(T)/2013 (AA697230)

A subsurface scientific instrument exists in position 16° 46'.84 S 145° 48'.60 E.

A scientific instrument marked by a special conical light buoy, *Fl.Y.2·7s*, exists in position 16° 51'.28 S 145° 49'.04 E.

Chart temporarily affected - Aus 262 - AX 63262

975(T)/2013 AUSTRALIA - QUEENSLAND - Hull River - Light unlit
Maritime Safety Queensland Notice 711(T)/2013 (AA695409)

The light, *Fl.2·5s* (17° 59'.40 S 146° 04'.67 E), is unlit.

Chart temporarily affected - Aus 258 - Aus 828 - Aus 829

983(T)/2013 AUSTRALIA - TORRES STRAIT - Channel Rock - Wreck; light buoy
Former Notice - 775(T)/2013 is cancelled
Maritime Safety Queensland Notice 709(T)/2013 (AA695295)

A wreck marked by a special light buoy, *Fl.Y.2·5s*, exists in position 10° 33'.14 S 142° 15'.13 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 292 - Aus 293 - Aus 299 - Aus 700

1007(T)/2013 AUSTRALIA - QUEENSLAND - Brisbane River - Lytton Rocks Reach - Harbour works
Date - Until 7 November 2013
Maritime Safety Queensland Notice 769(T)/2013 (AA698795)

Piling operations and construction works are in progress in the vicinity of position 27° 24'.46 S 153° 09'.07 E.

The barge *Maeve Anne* is on site and has deployed anchors marked by special light buoys.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 237

1008(T)/2013 AUSTRALIA - QUEENSLAND - Bundaberg - Dredging operations
Date - Until 12 December 2013
Maritime Safety Queensland Notice 783(T)/2013 (AA699976)

The vessels *Nu Endeavour, Nu Maxilift* and *Nu Rapid* are conducting dredging operations along the northern training wall between positions 24° 45'.31 S 152° 23'.49 E and 24° 46'.45 S 152° 22'.77 E. A floating pipeline exists between these positions.

The vessels will display appropriate lights and shapes and will monitor VHF Ch 13, Ch 16 and Ch 82.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 242

1010(T)/2013 AUSTRALIA - QUEENSLAND - Gladstone - Light buoys
Former Notice - 951(T)/2012 is cancelled
Date - Until 15 December 2013
Maritime Safety Queensland (AA698376)

Light buoys exist in the following positions:

Number	*Position*	*Characteristic*
T3	23° 47'.97 S 151° 12'.81 E	*Fl.G.4s*
T4	23° 48'.12 S 151° 12'.87 E	*Fl.R.4s*

Chart temporarily affected - Aus 244 - Aus 245

1014(T)/2013 AUSTRALIA - QUEENSLAND - Hay Point - Depth information
Former Notice - 650(T)/2012 is cancelled
Maritime Safety Queensland Notices 781/2013, 784/2013 (AA699549, AA699720)

Available depths as at 27 September 2013:

		Metres	*Remarks*
*	Entrance Channel	14.7	Between No 4 beacon and the northern end.
		15.0	Seaward of beacon No 4.
*	HPS Berth No 1	16.4	
*	HPS Berth No 2	16.8	
*	DBCT Berth No 1	17.6	
*	DBCT Berth No 2	17.9	
*	DBCT Berth No 3	17.9	
*	DBCT Berth No 4	17.8	
	Tug Harbour entrance channel	5.1	Lesser depths exist close to the outer edges of the channel and around tug berths and piers.

* Indicates revised entry.

Lesser depth exist in an area south of Hay Point No 1 berth out to approximately 100m east northeast from the seaward edge of berth No 3 and leading southward to the southwest corner of the channel

Chart temporarily affected - Aus 249 - Aus 250 - AX 00249S

1015(T)/2013 AUSTRALIA - QUEENSLAND - Karumba - Depth information
Former Notice - 517(T)/2013 is cancelled
Maritime Safety Queensland Notice 374(T)/2013, 770(T)/2013 (AA671724, AA699028)

Available depths as at 25 September 2013:

	Berth	*Metres*	*Remarks*
*	Entrance Channel	3.4	Shoaling exists on the northern side of the channel in the vicinity of position 17° 26'.64 S 140° 45'.32 E. Mariners are advised to navigate south of the centreline of the channel.
	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

1016(T)/2013 AUSTRALIA - QUEENSLAND - Kirra Point to Currumbin Rock - Scientific instruments
Date - Until 16 November 2013
Maritime Safety Queensland Notice 793(T)/2013 (AA699962)

Subsurface scientific instruments exist in the vicinity of position 28° 08'.67 S 153° 30'.68 E.

Chart temporarily affected - Aus 813 - Aus 814

1025(T)/2013 AUSTRALIA - QUEENSLAND - Shoalwater Bay - Raynham Island - Live firing
Former Notice - 866(T)/2013 is cancelled
Date - Until 1 February 2014
Maritime Safety Queensland Notice 763(T)/2013 (AA698726)

Live firing activities will be conducted in the Shoalwater Bay training area during the period 1 October 2013 to 31 January 2014.

A marine danger area extends to all waters within a 2M radius of position 22° 15'.96 S 150° 32'.45 E.

All waters, creeks, beaches and other areas within the declared marine danger area are not available for access.

Mariners are advised to keep clear of this area throughout the above times.

Chart temporarily affected - Aus 260 - Aus 367 - Aus 822 - AX 00260S - AX 00260T - AX 00367S - AX 00822S

1056(T)/2013 AUSTRALIA - QUEENSLAND - Gladstone - Light buoys repositioned
Maritime Safety Queensland Notice 778(T)/2013 (AA701517)

The light buoys have been repositioned to mark the toe lines of the new Passage Island Channel as follows:

	Positions	*Light characteristics*
PI1	23° 47'.58 S 151° 12'.57 E	*Fl.G.2·5s*
PI2	23° 47'.66 S 151° 12'.49 E	*Fl.R.2·5s*
PI3	23° 47'.43 S 151° 12'.40 E	*Fl.G.2·5s*
PI4	23° 47'.51 S 151° 12'.32 E	*Fl.R.2·5s*
PI5	23° 47'.02 S 151° 11'.95 E	*Fl.G.2·5s*
PI6	23° 47'.37 S 151° 12'.05 E	*Fl.R.2·5s*
PI7	23° 46'.60 S 151° 11'.45 E	*Fl.G.2·5s*
PI8	23° 47'.11 S 151° 11'.79 E	*Fl.R.2·5s*
PI9	23° 46'.50 S 151° 11'.38 E	*Fl.G.2·5s*
PI10	23° 46'.84 S 151° 11'.41 E	*Fl.R.2·5s*
PI11	23° 46'.39 S 151° 11'.32 E	*Fl.G.2·5s*
PI12	23° 46'.68 S 151° 11'.38 E	*Fl.R.2·5s*
PI13	23° 46'.26 S 151° 11'.37 E	*Fl.G.2·5s*
PI14	23° 46'.56 S 151° 11'.29 E	*Fl.R.2·5s*
PI15	23° 46'.09 S 151° 11'.42 E	*Fl.G.2·5s*
PI16	23° 46'.39 S 151° 11'.16 E	*Fl.R.2·5s*
PI17	23° 46'.16 S 151° 11'.23 E	*Fl.Y.2·5s*
PI18	23° 46'.13 S 151° 10'.95 E	*Fl.R.2·5s*
PI19	23° 46'.11 S 151° 11'.25 E	*Fl.Y.2·5s*
PI20	23° 46'.01 S 151° 10'.90 E	*Fl.R.2·5s*
PI22	23° 45'.75 S 151° 10'.78 E	*Fl.R.2·5s*
PI23	23° 45'.83 S 151° 10'.93 E	*Fl.G.2·5s*
PI24	23° 45'.58 S 151° 10'.74 E	*Fl.R.2·5s*
PI25	23° 45'.70 S 151° 10'.89 E	*Fl.G.2·5s*
PI26	23° 45'.47 S 151° 10'.66 E	*Fl.R.2·5s*
PI27	23° 45'.57 S 151° 10'.85 E	*Fl.G.2·5s*
PI28	23° 45'.34 S 151° 10'.66 E	*Fl.Y.2·5s*
PI29	23° 45'.52 S 151° 10'.88 E	*Fl.G.2·5s*
PI50	23° 46'.67 S 151° 11'.64 E	*Fl.Y.2·5s*

The following light buoys have been removed:

	Positions
PI21	23° 45'.51 S 151° 10'.88 E
PI51	23° 46'.25 S 151° 11'.21 E
PI52	23° 46'.10 S 151° 11'.26 E
PI53	23° 45'.33 S 151° 10'.66 E
PI55	23° 45'.09 S 151° 10'.29 E

The replacement of the light buoys by light beacons is due to be completed 1Q 2014. A preliminary notice to mariners will be issued for the light beacon project in due course. As such the charts will not be updated; new chart Aus 272 is due for publication early 2014.

The AHS will update the ENC AU5244X5 to reflect the changes as they occur.

Chart temporarily affected - Aus 244 - Aus 245

1059(T)/2013 AUSTRALIA - QUEENSLAND - Pumicestone Channel - Light beacon unlit
Maritime Safety Queensland Notice 812(T)/2013 (AA702174)

The starboard light beacon, *Fl.G.2·5s* (27° 02'.69 S 153° 07'.74 E), is unlit.

A starboard lateral light buoy, *Fl.G.2·5s,* exists in position 27° 02'.68 S 153° 07'.74 E.

Chart temporarily affected - Aus 235 - Aus 236

1061(T)/2013 AUSTRALIA - QUEENSLAND - Townsville - Stuart Creek - Wreck
Maritime Safety Queensland Notice 816(T)/2013 (AA701888)

A wreck marked by a special light buoy, *Fl.Y.2·5s,* exists in position 19° 16'.82 S 146° 49'.83 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 257

1098(T)/2013 AUSTRALIA - QUEENSLAND - Cape Tribulation - Wreck; exclusion zone
Former Notice - 1055(T)/2013 is cancelled
Maritime Safety Queensland Notice 831(T)/2013 (AA703110)

A wreck exists in position 16° 07'.64 S 145° 31'.22 E.

Salvage operations are in progress and a 1852m radius exclusion zone exists around the wreck.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 831 - AXA 0830T

1100(T)/2013 AUSTRALIA - QUEENSLAND - Gold Coast - Nerang River - Harbour works
Former Notice - 1013(T)/2013 is cancelled
Maritime Safety Queensland Notice 327(T)/2013, 856(T)/2013 (AA668391, AA703970)

Construction works on the Gold Coast bridge are in progress.

The *F.Bu* lights in positions 27° 58'.62 S 153° 25'.27 E and 27° 58'.61 S 153° 25'.28 E are unlit.

Lateral light buoys will be positioned to guide vessels through the construction zone and beneath the relevant bridge navigation span as required. The temporary navigation span clearance is *4.8m* HAT.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 230

1101(T)/2013 AUSTRALIA - QUEENSLAND - Hay Point - AIS trial
Date - Until 15 January 2014
Maritime Safety Queensland Notice 827(T)/2013 (AA703038, AA703683)

AIS exist as follows:

MMSI	*Position (WGS84 datum)*	*Remarks*	*Type*
995036068	21° 15'.96 S 149° 19'.70 E	Starboard lateral mark	Virtual
995036069	21° 16'.22 S 149° 19'.78 E	Port lateral mark	Virtual
995036067	21° 15'.61 S 149° 19'.54 E	Special mark	Virtual
995031021	21° 15'.33 S 149° 23'.18 E	Port lateral mark	Synthetic

Chart temporarily affected - Aus 249 - Aus 250 - AX 00249S

1104(T)/2013 AUSTRALIA - QUEENSLAND - Mooloolaba - Light beacon damaged
Maritime Safety Queensland Notice 832(T)/2013 (AA702961)

The No8 light beacon (26° 41'.01 S 153° 08'.12 E) has been damaged; a temporary light, *Fl.R.2·5s,* exists on the beacon.

Chart temporarily affected - Aus 235

1107(T)/2013 AUSTRALIA - QUEENSLAND - Rosslyn Bay - Dredging operations; pipeline
Former Notice - 649(T)/2013 is cancelled
Date - Until 20 December 2013
Maritime Safety Queensland Notices 505(T)/2013, 869(T)/2013 (AA680912, AA704523)

The dredge *Darwin* is conducting dredging operations in the harbour (23° 09'.65 S 150° 47'.39 E).

Spoil will be deposited in an area within a 100m radius of position 23° 09'.13 S 150° 47'.80 E. The dredge will display appropriate lights and shapes and will monitor VHF Ch 16 and Ch 21.

A pipeline exists on the seabed between the following:

Position	*Remarks*
23° 09'.14 S 150° 47'.75 E	special light buoy, *Fl.Y.2s*
23° 09'.15 S 150° 47'.46 E	
23° 09'.24 S 150° 47'.42 E	special light buoy, *Fl.Y.2s*
23° 09'.35 S 150° 47'.34 E	
23° 09'.53 S 150° 47'.31 E	
23° 09'.56 S 150° 47'.35 E.	

Mariners are advised not to anchor in the vicinity of the pipeline and to navigate with caution in the area.

Chart temporarily affected - Aus 247 - Aus 819 - Aus 820 - AX 00820S

1109(T)/2013 AUSTRALIA - QUEENSLAND - Whitsundays - Spitfire Rock - Light beacon destroyed
Former Notice - 422(T)/2011 is cancelled
Maritime Safety Queensland Notice 930(T)/2010, 837/2013 (AA500617, AA702934)

The west cardinal light beacon (20° 28'.59 S 149° 01'.70 E) has been destroyed; a west cardinal cylindrical light buoy *Q(9)15s* exists in situ.

Chart temporarily affected - Aus 252 - Aus 254 - Aus 824

1156(T)/2013 AUSTRALIA - QUEENSLAND - Great Sandy Strait - Tin Can Inlet - Snapper Creek - Wreck
Maritime Safety Queensland Notice 876(T)/2013 (AA705816)

A stranded wreck exists in position 25° 54'.44 S 153° 00'.06 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 240

1159(T)/2013 AUSTRALIA - QUEENSLAND - Mackay - Depth information
Former Notice - 1017(T)/2013 is cancelled
Maritime Safety Queensland Notice 888(T)/2013 (AA705666)

Available depths as at 6 November 2013:

	Remarks	*Metres*
*	Entrance Channel	8.6
*	Swing Basin	8.5
*	Berth No 1	11.0
*	Berth No 3	12.5
*	Berth No 3 & 4 composite	12.5
*	Berth No 4	10.8
*	Berth No 5	12.5

* Indicates revised entry.

Chart temporarily affected - Aus 250

1213(T)/2013 AUSTRALIA - QUEENSLAND - Brisbane River - Shafston Reach - Harbour works
Former Notice - 760(T)/2013 is cancelled
Date - Until 31 July 2014
Maritime Safety Queensland Notices 562(T)/2013, 920(T)/2013 (AA686411, AA708740)

Harbour works associated with the reconstruction of the New Farm riverwalk are in progress.

A temporary 6 knot speed limit, marked by four special light buoys, Q.Y, exists between 27° 27'.83 S 153° 02'.15 E and 27° 27'.77 S 153° 02'.15 E; downstream to 27° 28'.37 S 153° 02'.38 E and 27° 28'.35 S 153° 02'.44 E.

Port lateral light buoys, *Fl.R.2·5s*, exist in positions 27° 27'.92 S 153° 02'.25 E and 27° 27'.87 S 153° 02'.21 E. The port lateral light buoy (27° 28'.09 S 153° 02'.32 E) has been repositioned to 27° 28'.10 S 153° 02'.30 E.

The barge MDT1803 and tugs are on site and will monitor VHF Ch 13. The barge will display appropriate lights and shapes and the offshore anchor lines will be marked by special light buoys.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 238

1214(T)/2013 AUSTRALIA - QUEENSLAND - Cape Bowling Green - Scientific instrument
Former Notice - 926(T)/2011 is cancelled
Australian Institute of Marine Science (AA710432)

A subsurface scientific instrument, depth *10m*, exists in position 19° 18'.25 S 147° 37'.23 E.

Chart temporarily affected - Aus 826 - Aus 827

1217(T)/2013 AUSTRALIA - QUEENSLAND - Great Sandy Strait - Tin Can Inlet - Wreck
Maritime Safety Queensland Notice 908(T)/2013 (AA708493)

A stranded wreck, marked by a *Q.Y* light, exists in position 25° 51'.85 S 153° 02'.10 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 241

1218(T)/2013 AUSTRALIA - QUEENSLAND - Mooloolaba - Shoaling
Former Notice - 1103(T)/2013 is cancelled
Maritime Safety Queensland Notice 912(T)/2013 (AA707994)

A least depth of *2.5m* exists within the main channel to Mooloolah River.

A least depth of *2.3m* exists midway between light beacons No1 (26° 40'.81 S 153° 07'.94 E) and No3 (26° 40'.86 S 153° 08'.01 E).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 235

1220(T)/2013 AUSTRALIA - QUEENSLAND - Moreton Bay - Brisbane River - Entrance Channel - Light buoy
Former Notice - 341(T)/2013 is cancelled
Maritime Safety Queensland Notices 285(T)/2013, 918/2013 (AA664979, AA708446)

A special light buoy, *Fl.Y.2·5s,* exists in position 27° 19'.22 S 153° 12'.28 E.

Chart temporarily affected - Aus 237

1223(T)/2013 AUSTRALIA - QUEENSLAND - Weipa - Light beacon destroyed
Former Notice - 1165(T)/2013 is cancelled
Maritime Safety Queensland Notices 896(T)/2013; 915/2013 (AA706057, AA708092)

SC24 light beacon, *Q.R* (12° 40'.16 S 141° 49'.74 E), has been destroyed; a port lateral light buoy, *Q.R*, exists in situ.

Chart temporarily affected - Aus 4

1267(T)/2013 AUSTRALIA - QUEENSLAND - Moreton Bay - Brisbane River - Depth information
Former Notice - 1219(T)/2013 is cancelled
Brisbane Port Corporation (AA712968)

Available depths and under keel clearances (UKC) at 12 December 2013:

	Berth	*Metres*	*Remarks*
*	Fisherman Islands No12	13.5	
	Fisherman Islands No11	13.7	
*	Fisherman Islands No10	14.0	
*	Fisherman Islands No9	13.9	
*	Fisherman Islands No8	14.0	
*	Fisherman Islands No7	13.7	
*	Fisherman Islands No6	13.9	
*	Fisherman Islands No5	13.8	

*	Fisherman Islands No4	13.7
*	Fisherman Islands No3	13.5
*	Fisherman Islands No2	13.8
*	Fisherman Islands No1	14.0
*	Fisherman Islands Grain and Woodchip	13.0
*	Caltex Fisherman Islands	14.0
*	Fisherman Islands Coal	13.8
*	Fisherman Islands General Purpose	11.4
*	BP Luggage Point	14.0
*	Caltex Products	10.1
	Cement Australia Co Wharf	9.3
*	BP Products	10.0
*	Shell	11.0
	Pacific Terminals	10.9
*	Incitec North	9.7
*	Incitec South	9.3
*	Pinkenba 1	10.0
*	Pinkenba 2	10.0
	Riverside Marina	-
	Sugar Terminal	9.8
	Cairncross Fitting Out Wharf	7.2
	Cairncross Breasting Wharf	4.9
	Brisbane Naval Wharf	4.3
*	Maritime No1	8.6
*	Hamilton No4	10.2
*	Hamilton No1	8.6
*	Brisbane Cruise Ship Terminal	8.8

	Metres	*UKC/Remarks*
Moreton Bay:		
North West Channel	15.0	2.3 (280m width)
North West Bypass Channel	9.2	1.6
Spitfire Channel	15.0	1.5 (600m width)
East Knoll Bypass Channel	6.0	1.4
East Channel	15.0	1.5 (300m width from western side)
Main Channel (M8 - M9)	10.0	1.8
Entrance Channel (E5 - EBCN)	14.7	1.5
Brisbane River:		
* Outer Bar Cutting	13.8	1.46
Inner Bar Cutting	13.7	1.46
* Fisherman Islands Swing Basin	13.6	1.3
River	9.1	0.6 / 0.9 (draft/tide)
Cement Australia Swing Basin	9.1	0.6 / 0.9 (draft/tide)
Pinkenba Swing Basin	9.1	0.6 / 0.9 (draft/tide)
Hamilton Swing Basin	9.0	0.6 / 0.9 (draft/tide)

* Indicates new or revised entry.

Chart temporarily affected - Aus 235 - Aus 236 - Aus 237 - Aus 238 - Aus 814 - Aus 815

1268(T)/2013 AUSTRALIA - QUEENSLAND - Moreton Bay - Redland Bay - Light beacon destroyed
Maritime Safety Queensland Notice 951(T)/2013 (AA712577)

The starboard light beacon, *Fl.G.3s* (27° 36'.83 S 153° 18'.84 E), has been destroyed.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 236

1270(T)/2013 AUSTRALIA - QUEENSLAND - Pumicestone Channel - Ningi Creek - Wreck
Maritime Safety Queensland Notice 938(T)/2013 (AA711733)

A wreck, marked by buoys, exists in position 27° 03'.91 S 153° 08'.04 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 235 - Aus 236

1271(T)/2013 AUSTRALIA - QUEENSLAND - Townsville - Depth information

Former Notice - 868(T)/2013 is cancelled
Maritime Safety Queensland Notice 947(T)/2013 (AA712300)

Available depths as at 6 December 2013:

		Metres	*Remarks*
	Sea Channel	11.6	
	Platypus Channel	11.3	
	Outer Harbour:		
	Arrival Channel	5.7	
	Departure Channel	10.0	Less depth at SE corner 9.1 metres
	Inner Harbour:		
	Harbour	11.4	
	Berths:		
	No 1	11.9	
*	No 2	12.1	
	No 3	11.4	
*	No 4	10.3	
*	No 7	11.7	
*	No 8	12.8	
	No 9	11.4	
*	Between No 9 and No 10	7.3	Seaward of 0 mark at No 10
*	No 10	12.6	
	No 11	10.8	
	Ross River Channel	2.3	Entrance to beacon No 6
	Ross River	-	Upstream of beacon No 6
	Ross Creek	-	

* Indicates new or revised entry.

Chart temporarily affected - Aus 256 - Aus 257

1273(T)/2013 AUSTRALIA - QUEENSLAND - Tuesday Islets - Wreck northeastwards
Former Notice - 1216(T)/2013 is cancelled
Australian Maritime Safety Authority Auscoast Warning 287/2013 (AA711612)

A wreck, marked by a virtual AIS isolated danger mark MMSI 995036080, exists in position 10° 31'.9 S 142° 24'.2 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 292 - Aus 293

1274(T)/2013 AUSTRALIA - QUEENSLAND - Two Islands - Wreck
Maritime Safety Queensland Notice 933(T)/2013 (AA711818)

A wreck exists in position 15° 01'.72 S 145° 28'.01 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 831 - Aus 832

NORTHERN TERRITORY

223(T)/2009 AUSTRALIA - TIMOR SEA - Sahul Banks - Navaid; racon non operational
Former Notice - 671(T)/2008 is cancelled
Modec Management Services (AA384494)

A lit riser turret mooring exists in position 10° 52'.50 S 126° 34'.19 E. The racon is non operational.

Chart temporarily affected - Aus 312 - Aus 4721 (INT 721) - AX 0312F - AX 4721F

814(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Darwin - Light buoy withdrawn
Darwin Port Corporation Notice 83(T)/2012 (AA616039)

The light buoy, *Fl.Y.4s,* (12° 28'.08 S 130° 49'.77 E), has been temporarily withdrawn.

Chart temporarily affected - Aus 24 - Aus 26 - AX 72026

870(T)/2012 INDIAN OCEAN - Sumatera - Scientific instruments westwards
Former Notice - 817(T)/2012 is cancelled
JAMSTEC (AA620015, AA620016)

Scientific instruments, Triton buoys, exist as follows:

Number	*Position*
17	4° 56'.93 S 94° 58'.51 E
18	1° 39'.34 S 89° 59'.74 E
19	7° 59'.97 S 95° 02'.39 E
20	4° 57'.55 S 97° 17'.13 E.

Chart temporarily affected - Aus 4070 (INT 70) - Aus 4071 (INT 71)

910(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Darwin - Cossack Creek - Obstruction
Darwin Port Corporation Notice 103/2012 (AA622006)

An obstruction exists in position 12° 31'.37 S 130 54'.08 E.

Chart temporarily affected - Aus 28

1003(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Darwin - Lee Point to Fannie Bay - Obstructions
Date - Until 30 September 2013
Darwin Port Corporation Notice 120(T)/2012 (AA627292)

Obstructions exist in positions 12° 21'.69 S 130° 51'.23 E and 12° 25'.88 S 130° 49'.84 E.

Chart temporarily affected - Aus 24 - Aus 26 - AX 72026

1004(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Darwin - Depth information
Former Notice - 62(T)/2012 is cancelled
Darwin Port Corporation (AA627294)

Available depths as at 26 September 2012:

Berths	*Metres*
* LNG 1-2	10.1
DLNG	13.1 (11.7 in Turning Basin)
* East Arm 0-100m	11.3
* East Arm 100-200m	12.2
* East Arm 200-300m	12.6
* East Arm 300-400m	12.6
* East Arm 400-500m	12.5
* East Arm 500-600m	13.3
East Arm 600-700m	11.8
Bulk Solids Wharf	12.4
Bulk Liquids Wharf	11.4
No 2 Fort Hill East	10.6
No 2 Fort Hill West	10.2

No 3 Stokes Hill East	4.7
No 3 Stokes Hill West	4.9
No 4 Stokes Hill East	1.7
No 4 Stokes Hill Middle	0.8
No 4 Stokes Hill West	3.2
Fishermans Wharf East	2.1
Fishermans Wharf West	0.7
Perkins International	-0.7
Perkins Domestic North	-0.9
Perkins Domestic South	-1.7
Frances Bay Marina approach channel	-0.9

* Indicates new or revised entry.

Chart temporarily affected - Aus 24 - Aus 27 - Aus 28

1096(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Darwin - Blaydin Point - Pontoon
Date - Until 4 December 2012
Darwin Port Corporation Notice 146(T)/2012 (AA633169)

A pontoon with a tide gauge exists in position 12° 30'.29 S 130° 55'.18 E.

Anchors will be marked by lights.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 26 - Aus 28 - AX 72026

1146(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Fenton Patches - Scientific instruments
Former Notice - 960(T)/2012 is cancelled
Date - Until 31 August 2014
Darwin Port Corporation Notice 158(T)/2012 (AA636819)

Special light buoys, *Fl.Y.3·5s,* exist in positions 12° 15'.17 S 130° 46'.39 E and 12° 14'.10 S 130° 50'.38 E.

Chart temporarily affected - Aus 309 - Aus 722 - AX 00309U - AX 72309 - AX 72722

1148(T)/2012 AUSTRALIA - NORTHERN TERRITORY - Darwin - Blaydin Point - Scientific instruments
Former Notice - 961(T)/2012 is cancelled
Date - Until 31 August 2014
Darwin Port Corporation Notice 159(T)/2012 (AA637096)

Special light buoys, *Fl.Y.3·5s,* exist in positions 12° 30'.40 S 130° 53'.16 E and
12° 31'.47 S 130° 56'.13 E.

Chart temporarily affected - Aus 26 - Aus 28 - AX 72026

59(T)/2013 AUSTRALIA - NORTHERN TERRITORY - Apsley Strait - Light buoys off station
Former Notice - 324(T)/2011 is cancelled
NT Government, Hydrographic & Cadastral Survey Pty Ltd (AA643605 - AA643606)

The following navaids are off station:
11° 51'.65 S 130° 35'.07 E starboard lateral light buoy, *Fl.G.5s*
11° 49'.87 S 130° 36'.69 E starboard lateral light buoy, *Fl.G.5s*
11° 48'.90 S 130° 38'.08 E starboard lateral light buoy, *Fl.G.5s*
11° 48'.00 S 130° 39'.06 E port lateral light buoy, *Fl.R.5s*
11° 46'.35 S 130° 39'.99 E port lateral light buoy, *Fl.R.5s*
11° 46'.01 S 130° 39'.88 E port lateral light buoy, *Fl.R.5s*
11° 44'.22 S 130° 37'.69 E port lateral light buoy, *Fl.R.5s*
11° 43'.85 S 130° 36'.08 E starboard lateral light buoy, *Fl.G.5s*
11° 25'.28 S 130° 24'.47 E special buoy
11° 25'.00 S 130° 24'.00 E special buoy
11° 24'.80 S 130° 23'.70 E special buoy
11° 17'.05 S 130° 17'.89 E starboard lateral light buoy, *Fl.G.5s.*

Chart temporarily affected - Aus 22 - Aus 23 - Aus 309 - Aus 722 - AX 00309T - AX 00309U - AX 00722T

518(T)/2013 AUSTRALIA - NORTHERN TERRITORY - Darwin - Middle Ground - Obstruction
Darwin Port Corporation Notice 75(T)/2013 (AA670992)

An obstruction exists within a 50m radius of position 12° 23'.75 S 130° 46'.43 E.

Mariners are advised not to anchor within the area.

Chart temporarily affected - Aus 26 - AX 00026T

520(T)/2013 AUSTRALIA - TIMOR SEA - Sahul Banks - Obstruction
Former Notice - 269(T)/2013 is cancelled
PTTEP Australasia (AA669085, AA669086)

An obstruction with least depth *109m* exists in position 11° 55'.45 S 125° 00'.45 E.

Chart temporarily affected - Aus 314 - Aus 4060 (INT 60) - Aus 4603 (INT 603) - Aus 4721 (INT 721) - Aus 4722 (INT 722) - AX 00314U - AX 04721U - AX 04722U

873(T)/2013 AUSTRALIA - NORTHERN TERRITORY - Darwin - East Arm - Blaydin Point - Harbour works
Former Notice - 826(T)/2013 is cancelled
Darwin Port Corporation Notice 138(T)/2013 (AA691150)

Works associated with the construction of the module offloading facility are in progress in an area bounded by the following positions:
12° 30'.51 S 130° 54'.25 E
12° 30'.29 S 130° 55'.63 E
12° 30'.92 S 130° 55'.97 E
12° 31'.05 S 130° 55'.68 E
12° 30'.57 S 130° 55'.28 E
12° 30'.90 S 130° 54'.64 E
12° 30'.66 S 130° 54'.26 E.

An exclusion zone exists within the area of the works.

The causeway is marked at the extremities by *Q.Y* lights. A silt curtain marked by *Q.Y* lights exists around the causeway.

Test piles marked by white spherical light buoys, *Q.Y*, exist in the following positions:
12° 30'.61 S 130° 54'.53 E
12° 30'.65 S 130° 54'.63 E
12° 30'.57 S 130° 54'.79 E
12° 30'.70 S 130° 54'.86 E.

Scientific instruments marked by special light buoys, *Q.Y*, exist in the following positions:
12° 30'.00 S 130° 53'.65 E
12° 30'.38 S 130° 53'.49 E
12° 30'.28 S 130° 54'.09 E
12° 30'.49 S 130° 53'.98 E
12° 30'.19 S 130° 54'.86 E
12° 29'.75 S 130° 55'.19 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 26 - Aus 28 - AX 00026T

919(T)/2013 AUSTRALIA - NORTHERN TERRITORY - Darwin - Weed Reef to Elizabeth River - Scientific instruments
Former Notices - 410(T)/2013, 654(T)/2013 are cancelled
Darwin Port Corporation Notice 145(T)/2013 (AA692841)

Special spar light buoys, *Fl.Y.4s,* exist in the following positions:
12° 29'.39 S 130° 48'.12 E.
12° 29'.84 S 130° 52'.40 E
12° 30'.19 S 130° 53'.85 E
12° 32'.88 S 130° 50'.75 E.

Special conical light buoys, *Fl.Y.6s,* exist in the following positions:
12° 29'.82 S 130° 53'.10 E
12° 29'.94 S 130° 52'.46 E
12° 31'.77 S 130° 56'.14 E

12° 32'.91 S 130° 52'.51 E.

Chart temporarily affected - Aus 24 - Aus 26 - Aus 27 - Aus 28 - AX 00026T

986(T)/2013 AUSTRALIA - NORTHERN TERRITORY - Darwin - East Arm - Dredging operations
Former Notice - 872(T)/2013 is cancelled
Darwin Port Corporation Notice 164(T)/2013 (AA695325)

The dredges *Eastern Aurora* and *Gungner R* and support vessel MT *Skinfaxe R* are conducting dredging operations in the vicinity of position 12° 29'.60 S 130° 53'.46 E.

A floating pipeline, marked by special buoys and lights *Q.Y*, exists from the dredge *Eastern Aurora* to position 12° 29'.50 S 130° 53'.47 E and a submerged pipeline exists between positions 12° 29'.50 S 130° 53'.47 E and 12° 29'.39 S 130° 53'.47 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 26 - Aus 28 - AX 00026T

1063(P)/2013 AUSTRALIA - NORTHERN TERRITORY - Darwin - Blaydin Point - Light beacons
Date - On or about 30 March 2014
Darwin Port Corporation Notice 177(T)/2013 (AA699032, AA700174)

Light beacons, marked by temporary lights and special light buoys, *Q.Y*, will be established as follows:

Position	*Characteristic*	*Remarks*
12° 30'.300 S 130° 54'.846 E	*Fl.G.3s*	M21
12° 30'.245 S 130° 54'.583 E	*Fl.R.3s*	M22
12° 30'.229 S 130° 54'.933 E	*Fl.G.3s*	M23
12° 30'.067 S 130° 54'.880 E	*Fl.R.3s*	M24
12° 30'.260 S 130° 55'.477 E	*Fl.G.3s*	M25
12° 30'.107 S 130° 55'.285 E	*Fl.R.3s*	M26
12° 30'.148 S 130° 55'.689 E	*Fl.R.3s*	M28
12° 30'.474 S 130° 55'.608 E	*Fl.G.3s*	M29
12° 30'.398 S 130° 55'.868 E	*Fl.R.3s*	M30
12° 30'.730 S 130° 56'.015 E	*Fl.R.3s*	M32
12° 30'.944 S 130° 55'.830 E	*Fl.R.3s*	M34

Chart which will be affected - Aus 26 - Aus 28 - AX 00026T

1114(T)/2013 AUSTRALIA - TIMOR SEA - Margaret Harries Banks - Drill rig
Date - Until 24 December 2013
MODU *ENSCO 104* (AA703896), Australian Maritime Safety Authority Auscoast Warning 262/2013 (AA703901)

Drill rig *ENSCO 104* is conducting drilling operations in position 10° 09'.21 S 128° 49'.58 E.

Chart temporarily affected - Aus 311 - Aus 4721 (INT 721) - AX 00311U - AX 04721U

1169(T)/2013 AUSTRALIA - TIMOR SEA - Sahul Banks - Drill rig
Australian Maritime Safety Authority Auscoast Warning 276/2013 (AA706846)

Drill rig *Stena Clyde* is conducting drilling operations in position 10° 38'.62 S 126° 09'.62 E.

Chart temporarily affected - Aus 312 - Aus 4721 (INT 721) - AX 00312U - AX 04721U

1279(T)/2013 AUSTRALIA - NORTHERN TERRITORY - Darwin - East Arm - Dredging operations
Former Notice - 1112(T)/2013 is cancelled
Date - Until 1 May 2014
Darwin Port Corporation Notice 228(T)/2013 (AA712331)

The dredge *Rotterdam* is conducting dredging operations in an area bounded by the following positions:
12° 30'.01 S 130° 53'.11 E
12° 30'.30 S 130° 53'.71 E
12° 30'.19 S 130° 54'.16 E
12° 30'.33 S 130° 54'.94 E
12° 30'.47 S 130° 54'.99 E
12° 30'.65 S 130° 54'.36 E
12° 30'.40 S 130° 53'.23 E.

The dredges *Athena, Queen of the Netherlands and Vox Maxima* are conducting dredging operations in the vicinity of Walker Shoal (12° 29'.46 S 130° 52'.39 E).

The dredge *Athena* with deployed anchors marked by lights and a 750m floating pipeline marked by flashing yellow lights. The dredges *Queen of the Netherlands and Vox Maxima* will connect to the pipeline to receive dredge spoil.

The Orion barge is in position 12° 30'.49 S 130° 53'.42 E and is marked by lights.

A 250m safety zone exists around the dredges.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 26 - Aus 28 - AX 00026T

1280(T)/2013 AUSTRALIA - NORTHERN TERRITORY - Darwin - Wickham Point - Scientific instruments
Former Notice - 1110(T)/2013 is cancelled
Date - Until 30 April 2014
Darwin Port Corporation Notice 230(T)/2013 (AA712561)

Scientific instruments marked by special spar light buoys, *Q.Y*, exist in positions 12° 29'.20 S 130° 51'.60 E and 12° 30'.13 S 130° 52'.79 E.

Chart temporarily affected - Aus 24 - Aus 26 - Aus 27 - Aus 28 - AX 00026T

1281(T)/2013 AUSTRALIA - NORTHERN TERRITORY - Darwin - Sadgroves Creek - Light buoy; wreck salvaged
Former Notice - 777(T)/2013 is cancelled
Darwin Port Corporation Notice 227(T)/2013 (AA712396)

A special light buoy, *Fl(2)Y.8s*, exists in position 12° 27'.19 S 130° 51'.23 E.

Chart temporarily affected - Aus 24 - Aus 26 - AX 00026T

1282(P)/2013 AUSTRALIA - NORTHERN TERRITORY - Darwin - East Arm - Light beacons
Former Notice - 1225(P)/2013 is cancelled
Darwin Port Corporation Notice 217(P)/2013 (AA708867)

Light beacons will be established as follows:

Position	*Characteristic*	*Remarks*
12° 29'.914 S 130° 53'.132 E	*Fl.R.2·5s*	MS2
12° 29'.927 S 130° 53'.276 E	*Fl.G.2·5s*	MS3
12° 29'.779 S 130° 53'.339 E	*Fl.R.2·5s*	MS4
12° 29'.807 S 130° 53'.417 E	*Fl.G.2·5s*	MS5
12° 29'.648 S 130° 53'.384 E	*Fl.R.2·5s*	MS6
12° 29'.662 S 130° 53'.443 E	*Fl.G.2·5s*	MS7
12° 29'.579 S 130° 53'.493 E	*Fl.G.2·5s*	MS9
12° 29'.650 S 130° 53'.583 E	*DirWRG & Fl.Y.2s*	SL with sectors Green *052·5° - 053·4° (0·9°)*, *Al WG 053·4° - 054·4° (1°)*, White *054·4° - 055·6° (1·2°)*, Al WR *055·6° - 056·6° (1°)*, Red *056·6° - 057·5° (0·9°).*

Chart which will be affected - Aus 28

WESTERN AUSTRALIA

518(T)/2009 AUSTRALIA - WESTERN AUSTRALIA - Geographe Bay - Scientific instrument
Former Notice - 1260(T)/2006 is cancelled
Department for Planning and Infrastructure WA (AA400740)

A scientific instrument exists in position 33° 36'.7 S 115° 13'.7 E (WGS84 datum).

Chart temporarily affected - Aus 334 - Aus 335 - Aus 755 - Aus 756 - AX 0334E - AX 0755E

524(T)/2010 AUSTRALIA - WESTERN AUSTRALIA - Mullaloo to Warnbro Sound - Scientific instruments
Former Notice - 461(T)/2010 is cancelled
Department of Transport WA (AA465142)

Special light buoys, *Fl.Y.5s,* exist in positions:
31° 45'.85 S 115° 43'.29 E
31° 47'.37 S 115° 42'.39 E
31° 47'.89 S 115° 41'.75 E
31° 52'.11 S 115° 42'.81 E
31° 52'.52 S 115° 43'.46 E
31° 53'.14 S 115° 43'.78 E
31° 53'.58 S 115° 44'.25 E
31° 53'.88 S 115° 44'.90 E
31° 55'.73 S 115° 44'.85 E
31° 56'.33 S 115° 44'.84 E
31° 58'.67 S 115° 44'.79 E
31° 59'.26 S 115° 44'.65 E
31° 59'.76 S 115° 44'.59 E
32° 01'.39 S 115° 43'.78 E
32° 01'.58 S 115° 44'.62 E
32° 01'.45 S 115° 34'.29 E
32° 04'.79 S 115° 37'.42 E
32° 05'.69 S 115° 37'.54 E
32° 08'.65 S 115° 38'.57 E
32° 20'.97 S 115° 44'.00 E.

Mariners are not to use these buoys as moorings.

Chart temporarily affected - Aus 112 - Aus 116 - Aus 117 - Aus 334 - Aus 754 - Aus 755 - AX 0334E - AX 0754E - AX 0755E - AX 63112 - AX 66002 - AX 70117

278(T)/2011 AUSTRALIA - WESTERN AUSTRALIA - Comet Bay - Scientific instrument
Date - Until 31 August 2012
CSIRO (AA520991, AA520995)

A subsurface scientific instrument exists in position 32° 23'.97 S 115° 44'.10 E.

Chart temporarily affected - Aus 755 - AX 0755E - AX 66002

776(T)/2011 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Pipeline infrastructure
Former Notice - 718(T)/2011 is cancelled
Date - Until 10 December 2011
Department of Transport WA Notice 93/2011 (AA546427)

Works associated with pipeline infrastructure installation are in progress. An exclsuion zone marked by special light buoys, *Q.Y,* exists within an area bounded by the following positions (WGS84 datum):
20° 41'.40 S 115° 23'.71 E
20° 41'.79 S 115° 24'.68 E
20° 41'.00 S 115° 25'.03 E
20° 40'.55 S 115° 24'.08 E.

MV *Carlisle* will monitor VHF Ch 16 and all vessels involved in the operations will display appropriate lights and shapes.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 327 - Aus 328 - Aus 742

127(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Mermaid Sound - Obstructions
Former Notice - 911(T)/2009 is cancelled
Dampier Port Authority Notice 1/2012 (AA578115)

Obstructions marked by special light buoys, *Q,* exist in the following positions:
20° 31'.47 S 116° 45'.16 E
20° 31'.96 S 116° 44'.57 E
20° 32'.49 S 116° 44'.51 E
20° 32'.79 S 116° 44'.51 E.

Chart temporarily affected - Aus 57 - Aus 58

260(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Pipeline
Former Notice - 209(T)/2012 is cancelled
Date - Until 30 June 2013
Chevron Australia Pty Ltd (AA585081, AA585082, AA587422), Australian Maritime Safety Authority (AA584979)

SPV *Lorelay* and support vessels *Highland Navigator* and *Calamity Jane* are conducting pipe laying operations between the following positions:
20° 41'.45 S 115° 24'.94 E
20° 33'.59 S 115° 05'.86 E
20° 08'.98 S 114° 49'.43 E
20° 02'.34 S 114° 46'.95 E
19° 54'.34 S 114° 39'.60 E
19° 48'.54 S 114° 36'.47 E
and
19° 49'.54 S 114° 34'.21 E
19° 47'.45 S 114° 38'.63 E
and
20° 34'.92 S 115° 08'.99 E
20° 33'.97 S 115° 04'.62 E
20° 29'.25 S 114° 53'.86 E
20° 24'.56 S 114° 50'.87 E
20° 31'.33 S 114° 49'.35 E
20° 29'.25 S 114° 53'.86 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 327 - Aus 328 - Aus 742

418(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Esperance - Depth information
Former Notice - 337(T)/2010 is cancelled
Esperance Ports Sea and Land Notice 3/2012 (AA593980)

Esperance Ports Sea and Land Notice 3/2012 (AA593980)

Available depths as of 11 April 2012:

Location	*Metres*
* Berth No 1	13.0
* Berth No 2	13.0
* Berth No 3	17.6
Swing Basin	12.9/14.5
Entrance Channel	18.5

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 119

472(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Passage Islands - Obstructions
Date - Until 15 May 2013
Department of Transport WA Notice 53/2012 (AA597010)

Obstructions exist in the following positions:
21° 11'.28 S 115° 47'.70 E
21° 07'.76 S 115° 50'.10 E
21° 06'.01 S 115° 46'.93 E

21° 08'.15 S 115° 43'.83 E.

Chart temporarily affected - Aus 743

474(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Koombana Bay - Scientific Instrument
Date - Until 30 January 2014
Department of Transport WA Notice 46/2012 (AA596083)

Scientific instrument marked by a spherical special buoy exist in position, 33° 19'.17 S 115° 39'.05 E.

Chart temporarily affected - Aus 115

661(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Dampier - King Bay - Light beacon damaged
Former Notice - 521(T)/2012 is cancelled
Dampier Port Authority Notice 12/2012 (AA606820)

The No3 light beacon (20° 37'.75 S 116° 44'.29 E) has been damaged; a temporary light, *Fl(2)G.5s,* exists on the beacon and a light buoy, *Fl.5s,* exists in situ.

Chart temporarily affected - Aus 59

713(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Rankin Bank - Scientific instrument northeastwards
Former Notice - 943(T)/2011 is cancelled
MetOcean Engineers (AA609181)

A subsurface scientific instrument exists in position 19° 34'.47 S 116° 09'.53 E.

Chart temporarily affected - Aus 327

1053(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Seringapatam Reef - Scientific instrument
Date - Until 7 October 2013
Fugro Survey Pty Ltd (AA630323 - AA630325)

A special light buoy, *Fl(5)Y.20s,* exists in position 13° 43'.39 S 122° 15'.83 E.

Chart temporarily affected - Aus 322 - AX 00322U

1057(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Fremantle - Depth information
Former Notice - 438(T)/2011 is cancelled
Fremantle Ports Notice 8(T)/2012 (AA630746)

Available depths as at 17 October 2012:

Berth	*Metres*
No 1	11.0
No 2	11.0
No 4	14.6
No 5	14.6
No 6	14.6
* No 7	14.5
* No 8	14.5
* No 9	14.5
* No 10	14.5
* No 11	10.4
* No 12	10.6
C	10.4
* D	10.4
* E	10.1
* F	10.0
* G	10.2
* H	10.1

* Indicates revised entry.

Maximum draft of vessels using inner harbour berths must be obtained by contacting the Harbour Master's office.

Chart temporarily affected - Aus 113

1105(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Fremantle - Swan River - Light beacon
Date - Until 31 October 2014
Department of Transport WA (AA631861, AA831862)

A special light beacon, *Fl.Y.4s,* exists in position 32° 00'.21 S 115° 49'.67 E.

Chart temporarily affected - Aus 112 - AX 63112

1107(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Flinders Bay - Harbour works
Date - Until 31 August 2013
Department of Transport WA Notice 98/2012 (AA630905)

Harbour works associated with the development of a boat harbour are in progress.

An exclusion zone marked by special buoys exists in an area with radius 0.54M from point 34° 21'.20 S 115° 10'.01 E.

Special light buoys, *Q.Y,* exist in positions 34° 21'.00 S 115° 10'.30 E and 34° 21'.46 S 115° 10'.13 E.

Chart temporarily affected - Aus 116

1108(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Albany - Harbour works
Date - Until 15 January 2013
Department of Transport WA Notice 103/2012 (AA634951)

Harbour works associated with the construction of a jetty are in progress in the vicinity of position 35° 01'.82 S 117° 53'.22 E.

The area will be marked by special light buoys. All vessels involved in the works will display appropriate lights and shapes and will monitor VHF Ch 16.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 109

1160(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Cockburn Sound - Scientific instruments
Date - Until 30 November 2013
Fremantle Ports Notice 12/2012 (AA637140)

Special light beacons, *Fl.Y.4s,* exist in positions 32° 12'.90 S 115° 45'.04 E and 32° 14'.41 S 115° 43'.30 E.

Subsurface scientific instruments exist on the seabed in positions 32° 10'.84 S 115° 43'.57 E and 32° 12'.09 S 115° 45'.74 E.

Chart temporarily affected - Aus 111 - Aus 114 - Aus 117 - AX 00117T

1216(T)/2012 AUSTRALIA - WESTERN AUSTRALIA - Broome - Scientific instrument
Former Notice - 1337(T)/2011 is cancelled
Date - Until 30 January 2014
Broome Port Authority (AA640508)

A scientific instrument marked by a special light buoy, *Fl.Y.3s,* exists in position 18° 00'.06 S 122° 12'.93 E.

Chart temporarily affected - Aus 50 - Aus 51

64(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Browse Island - Light buoys northwestwards
Date - Until 28 February 2013
Delmar Systems Inc (AA645444 - AA645445)

Light buoys, *Fl.5s,* exist in the following positions:
13° 48'.81 S 123° 19'.73 E
13° 48'.98 S 123° 19'.30 E
13° 49'.05 S 123° 19'.89 E
13° 49'.28 S 123° 19'.43 E.

Chart temporarily affected - Aus 319 - Aus 320 - AX 00319U

116(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Ashburton Road to Moresby Shoals - Scientific instruments
Date - Until 31 January 2014
Department of Transport WA Notice 10/2013 (AA645987)

Light buoys, *Fl(6)Y.20s* , exist in the following positions:
21° 27'.92 S 115° 10'.19 E
21° 29'.91 S 115° 06'.16 E
21° 34'.01 S 115° 01'.10 E
21° 36'.17 S 115° 08'.97 E
21° 36'.31 S 115° 04'.62 E
21° 36'.45 S 115° 04'.01 E
21° 36'.86 S 115° 04'.49 E
21° 40'.02 S 115° 00'.63 E.

Chart temporarily affected - Aus 64 - Aus 328 - Aus 743

228(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Bunbury - Leschenault Estuary - Shoaling
Former Notice - 1058(T)/2012 is cancelled
Department of Transport WA (AA653972)

Shoaling exists inside the northern groyne of The Cut entrance channel (33° 18'.2 S 115° 40'.3 E).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 115

271(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Obstruction
Dampier Port Authority Notice 9/2013 (AA655652)

An obstruction exists in position 20° 38'.8 S 116° 32'.2 E.

Chart temporarily affected - Aus 57 - Aus 741 - Aus 742

316(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Perth - Scientific instruments westwards
Former Notice - 1220(T)/2012 is cancelled
CSIRO (AA661219)

Subsurface scientific instruments, suspended 20m below the surface, exist in positions:
31° 37'.60 S 115° 14'.75 E
31° 38'.80 S 115° 11'.75 E
31° 41'.60 S 115° 07'.00 E
31° 43'.16 S 115° 01'.80 E
31° 46'.23 S 114° 56'.60 E
31° 59'.00 S 115° 14'.00 E
32° 03'.20 S 115° 04'.96 E
32° 00'.00 S 115° 25'.00 E
32° 00'.00 S 115° 24'.16 E.

Chart temporarily affected - Aus 334 - Aus 754 - AX 00334S - AX 00754S - AXA 0754S

422(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Scientific instrument
Former Notice - 68(T)/2013 is cancelled
Date - Until 31 January 2014
Department of Transport WA Notice 133/2012 (AA642224)

A special light buoy, *Fl(5)Y.20s,* exists in position 20° 49'.47 S 115° 30'.85 E.

Chart temporarily affected - Aus 62 - Aus 66

424(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Scientific instruments
Former Notice - 360(T)/2012 is cancelled
Chevron Australia Pty Ltd (AA590476)

Scientific instruments marked by special light buoys, *Fl(5)Y.20s,* exist in positions
20° 48'.3 S 115° 28'.9 E and 20° 49'.4 S 115° 30'.6 E.

Chart temporarily affected - Aus 62 - Aus 66 - Aus 742 - Aus 743

425(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Anchorage
Former Notice - 175(T)/2013 is cancelled
Department of Transport WA Notice 111/2011 (AA649470)

An anchorage exists in an area bounded by the following positions:
20° 41'.93 S 115° 29'.52 E
20° 41'.93 S 115° 30'.09 E
20° 42'.47 S 115° 30'.09 E
20° 42'.47 S 115° 29'.80 E
20° 42'.20 S 115° 29'.80 E
20° 42'.20 S 115° 29'.51 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 62 - Aus 67 - Aus 742

428(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Thevenard Island to Ashburton Road - Dredging operations; exclusion zones
Date - Until 31 March 2016
Department of Transport WA Notices 57/2013, 58/2013, Chevron (AA666513, AA666514), Dampier Port Authority Notice 8/2013 (AA666508)

The dredges *Ambiorix, Brabo* and *Breydel* are conducting dredging operations in an area, marked by light buoys *Fl.Y.6s,* bounded by the following positions:
21° 40'.44 S 114° 58'.81 E
21° 39'.36 S 114° 58'.81 E
21° 33'.43 S 114° 58'.07 E
21° 30'.54 S 115° 02'.14 E
21° 30'.95 S 115° 03'.96 E
21° 39'.40 S 115° 01'.77 E
21° 41'.14 S 115° 01'.77 E.

A floating pipeline exists between the dredges. Spoil will be deposited in a restricted area, marked by light buoys *Fl.Y.6s,* bounded by the following positions:
21° 26'.68 S 115° 05'.50 E
21° 26'.74 S 115° 10'.85 E
21° 31'.04 S 115° 10'.83 E
21° 30'.98 S 115° 05'.42 E.

All vessels will monitor VHF Ch 14 and Ch 16.

An exclusion zone marked by special light buoys, *Fl.Y.6s,* exists in an area bounded by the following positions:
21° 40'.44 S 114° 58'.81 E
21° 39'.36 S 114° 58'.81 E
21° 39'.40 S 115° 01'.77 E
21° 41'.14 S 115° 01'.77 E.

Mariners are advised to navigate with caution in the area and are to contact Ashburton Marine on VHF Ch 14 when entering the area of dredging operations.

Chart temporarily affected - Aus 64 - Aus 743

433(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Geraldton - Depth information
Former Notice - 946(T)/2008 is cancelled
Geraldton Port Authority (AA666328, AA666329)

Available depths as at 31 January 2013:

Berth	*Metres*
* No 1	9.1
* No 2	9.7
* No 3	12.9
* No 4	12.8
* No 5	13.3
* No 6	12.4
* No 7	13.1
Channel	

Harbour Basin	12.4
* Inside western breakwater beacon 20 to 22	12.6
Beacon 20	13.1
* Beacon 16 to 20	13.2
* Beacon 4 to 14	13.8
* Beacon 2 14.1	
* North Channel over Reef	9.1 in channel

* Indicates new or revised entry

Chart temporarily affected - Aus 81

435(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Garden Island - Light beacon northeastwards
Date - Until 10 April 2014
Fremantle Ports Notice 1(P)/2013 (AA666502)

A special light beacon, *Fl.Y.4s,* exists in position 32° 08'.10 S 115° 40'.65 E.

Chart temporarily affected - Aus 117 - Aus 754 - AX 00117T - AX 00754S - AXA 0754S

486(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Port Gregory - Shoaling
Department of Transport WA Notice 66/2012 (AA668957)

Shoaling, with a least depth of *0.1m,* exists adjacent to the jetty (28° 11'.44 S 114° 14'.95 E).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 84

523(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Harbour works
Former Notice - 421(T)/2013 is cancelled
Date - Until 31 March 2014
Department of Transport WA Notices 129/2012, 14/2013 (AA644896, AA671110)

Works associated with the construction of a jetty are in progress at Town Point. An exclusion zone exists in an area bounded by the following:

Position	*Remarks*
20° 47'.48 S 115° 28'.07 E	
20° 47'.48 S 115° 29'.04 E	
20° 48'.40 S 115° 30'.55 E	special conical light buoy, *Q.Y*
20° 50'.19 S 115° 30'.53 E	special conical light buoy, *Q.Y*
20° 50'.17 S 115° 28'.82 E	special conical light buoy, *Q.Y*
20° 48'.95 S 115° 28'.84 E	special conical light buoy, *Q.Y*
20° 47'.52 S 115° 28'.56 E.	

The infrastructure associated with the works is marked by lights, Fl.3s.

Barges and support vessels will monitor VHF Ch 10 and Ch 73 and display appropriate lights and shapes.

Chart temporarily affected - Aus 62 - Aus 66 - Aus 327 - Aus 328 - Aus 742 - Aus 743

527(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - North West Cape - Pipeline northwards
Date - Until 1 August 2013
Apache Energy Ltd (AA629433, AA671444 - AA671446)

OSCV *Boa Sub C* is conducting pipe laying operations between the following positions:
21° 20'.21 S 114° 04'.93 E
21° 20'.95 S 114° 04'.39 E
21° 23'.21 S 114° 04'.60 E.

A 500m exclusion zone exists around the vessel.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 328 - Aus 329 - Aus 744

563(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Browse Island - Seismic survey

Date - Until 30 April 2014
Petroleum Geo-Services (AA672403 - AA672405)

MV *Ramform Explorer,* with a 7000m towed array, and support vessels *Nautika Pride* and *No Limits* are conducting a survey in the area bounded by the following positions:
13° 00'.00 S 122° 25'.02 E
13° 00'.00 S 124° 04'.98 E
13° 40'.02 S 124° 04'.98 E
14° 12'.75 S 123° 14'.72 E
14° 46'.72 S 122° 33'.54 E
14° 46'.72 S 122° 25'.02 E.

Chart temporarily affected - Aus 319 - Aus 320 - Aus 322 - Aus 4721 (INT 721) - Aus 4722 (INT 722) - AX 00319U - AX 00322U - AX 04721U - AX 04722U

564(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Light buoys
Date - Until 1 March 2014
Dampier Port Authority Notice 19/2013 (AA675281)

A lit orange mooring buoy, *Q.Y,* exists in position 20° 37'.01 S 116° 44'.87 E.

Special light buoys, *Q.Y,* exist in the following positions:
20° 36'.99 S 116° 44'.90 E
20° 37'.00 S 116° 44'.87 E
20° 37'.00 S 116° 44'.84 E
20° 36'.95 S 116° 44'.83 E.

Chart temporarily affected - Aus 59

568(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Rock dumping
Date - Until 1 March 2014
Department of Transport WA (AA675333)

SDV *Joseph Plateau* and *Nordnes* are conducting rock dumping operations between the following positions:
20° 41'.32 S 115° 24'.73 E
20° 41'.37 S 115° 24'.72 E
20° 35'.58 S 115° 09'.51 E
20° 35'.14 S 115° 09'.31 E.

All vessels will display appropriate lights and shapes and will monitor VHF Ch 9, Ch 11 and Ch 16.

Chart temporarily affected - Aus 327 - Aus 328 - Aus 742

613(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Montebello Islands to Barrow Island - Lit mooring buoys
Former Notice - 418(T)/2013 is cancelled
Date - Until 30 June 2014
Department of Transport WA Notice 80/2013 (AA622588), Chevron Australia Pty Ltd (AA677845, AA677846)

Lit yellow mooring buoys, *Fl.Y.10s,* exist in positions:
20° 30'.48 S 115° 33'.86 E
20° 43'.96 S 115° 29'.31 E
20° 47'.30 S 115° 30'.30 E
20° 47'.66 S 115° 29'.24 E
20° 49'.85 S 115° 30'.40 E
20° 51'.56 S 115° 29'.54 E
20° 51'.62 S 115° 31'.96 E
20° 54'.09 S 115° 27'.74 E
20° 57'.75 S 115° 28'.07 E
21° 05'.94 S 115° 30'.83 E.

Chart temporarily affected - Aus 61 - Aus 62 - Aus 63 - Aus 66 - Aus 67 - Aus 742 - Aus 743

615(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Serrurier Island - Mooring buoy off station northwards
BHP Billiton Petroleum Pty Ltd (AA677207)

The lit riser turret mooring buoy, *Mo(U)15s,* is off station and an obstruction with least depth *35m* exists in position 21° 13'.31 S 114° 38'.74 E.

Chart temporarily affected - Aus 328 - Aus 744 - Aus 4060 (INT 60) - Aus 4070 (INT 70) - Aus 4708 (INT 708) - Aus 4723 (INT 723) - Aus 4725 (INT 725) - AX 04708U - AX 04723U

657(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Mermaid Sound - Scientific instruments
Date - Until 31 October 2013
MetOcean Engineers (AA679768)

Scientific instruments exist as follows:

Position	*Remarks*
20° 33'.25 S 116° 43'.10 E	*Fl(5)Y.20s*
20° 33'.23 S 116° 43'.15 E	5 poly floats.

Chart temporarily affected - Aus 58 - Aus 59

784(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Thevenard Island - Scientific instrument southwards
Date - Until 1 November 2013
Department of Transport WA Notice 104/2013 (AA686394)

A special pillar light buoy, *Q(5)Y.20s*, exists in position 21° 31'.81 S 115° 01'.74 E.

Chart temporarily affected - Aus 64 - Aus 743

831(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Harbour works
Date - Until 10 December 2013
Dampier Port Authority Notice 28/2013 (AA688922)

Harbour works are in progress in the vicinity of position 20° 36'.89 S 116° 45'.00 E. An exclusion zone exists within a 50m radius of this position.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 59

835(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - North West Cape - Light buoy northwards
Date - Until 28 February 2014
MetOcean Engineers (AA688078)

A scientific instrument marked by a special light buoy, *Q(5)Y.20s*, exists in position 21° 30'.34 S 114° 06'.74 E.

Chart temporarily affected - Aus 328 - Aus 329 - Aus 744

837(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Thevenard Island - Scientific instruments
Former Notice - 360(T)/2013 is cancelled
Date - Until 6 March 2016
MetOcean Engineers (AA688078)

Scientific instruments marked by special light buoys, *Q(5)Y.20s*, exist in the following positions:
21° 22'.07 S 114° 50'.93 E
21° 31'.74 S 115° 01'.82 E
21° 31'.79 S 115° 01'.76 E
21° 31'.81 S 115° 01'.74 E
21° 34'.97 S 115° 01'.28 E
21° 34'.97 S 115° 01'.33 E
21° 35'.01 S 115° 01'.22 E
21° 39'.29 S 115° 00'.07 E
21° 39'.32 S 115° 00'.14 E
21° 39'.33 S 115° 00'.19 E.

Subsurface scientific instruments exist in positions 21° 34'.99 S 115° 01'.29 E and 21° 39'.31 S 115° 00'.12 E.

Chart temporarily affected - Aus 64 - Aus 328 - Aus 743 - Aus 744

922(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Browse Island - Drill rig northwestwards
Date - Until 30 August 2015

MODU *Noble Clyde Boudreaux* (AA693287), Australian Maritime Safety Authority Auscoast Warning 214/2013 (AA693323)

Drill rig *Noble Clyde Boudreaux* is conducting drilling operations in position 13° 49'.01 S 123° 19'.60 E.

Chart temporarily affected - Aus 319 - Aus 320 - Aus 4721 (INT 721) - Aus 4722 (INT 722) - AX 00319U - AX 04721U - AX 04722U

929(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Penguin Shoal - Drill rig northwestwards
Date - Until 4 December 2013
MODU *ENSCO 109* (AA693285), PTTEP Australasia Pty Ltd (AA693302)

Drill rig *ENSCO 109* is conducting drilling operations in position 12° 40'.34 S 124° 32'.36 E.

Chart temporarily affected - Aus 314 - Aus 319 - Aus 4721 (INT 721) - Aus 4722 (INT 722) - AX 00314U - AX 00319U - AX 04721U - AX 04722U

932(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Rankin Bank - Drill rig eastwards
Date - Until 24 November 2013
MODU *Atwood Eagle* (AA692249), Australian Maritime Safety Authority Auscoast Warning 212/2013 (AA692269)

Drill rig *Atwood Eagle* is conducting drilling operations in position 19° 42'.41 S 115° 52'.53 E.

Chart temporarily affected - Aus 327 - Aus 4723 (INT 723) - AX 04723U

1033(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Scott Reef - Seringapatam Reef - Drill rig northeastwards
Former Notice - 353(T)/2013 is cancelled
Australian Maritime Safety Authority Auscoast Warning 236/2013 (AA699529)

Drill rig *Transocean Legend* is conducting drilling operations in position 13° 19'.00 S 122° 16'.45 E.

Chart temporarily affected - Aus 322 - Aus 4722 (INT 722) - AX 00322U - AX 04722U

1034(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - West Reef to Fly Island - Scientific instruments
Former Notice - 524(T)/2013 is cancelled
Date - Until 29 February 2016
Department of Transport WA Notice 142/2013 (AA700043)

Scientific instruments marked by special spar light buoys, *Fl.Y.6s,* exist in the following positions:
21° 19'.66 S 115° 23'.45 E
21° 19'.66 S 115° 09'.50 E
21° 27'.04 S 115° 02'.00 E
21° 28'.93 S 115° 01'.54 E
21° 30'.02 S 114° 50'.23 E
21° 30'.16 S 114° 55'.44 E
21° 31'.73 S 114° 46'.25 E
21° 33'.78 S 115° 00'.48 E
21° 33'.85 S 115° 00'.45 E
21° 34'.69 S 114° 54'.30 E
21° 35'.20 S 114° 56'.38 E
21° 35'.17 S 114° 56'.40 E
21° 37'.84 S 114° 41'.51 E
21° 37'.88 S 114° 41'.49 E
21° 43'.17 S 114° 46'.17 E.

Chart temporarily affected - Aus 64 - Aus 743 - Aus 744

1064(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Barrow Island - Drill rig northwestwards
Date - Until 9 December 2013
Chevron Australia Pty Ltd (AA701490), Australian Maritime Safety Authority Auscoast Warning 244/2013 (AA701786)

Drill rig *Atwood Osprey* is conducting drilling operations in position 20° 24'.49 S 114° 50'.96 E.

Chart temporarily affected - Aus 328 - Aus 4723 (INT 723) - AX 04723U

1066(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Depth information

Former Notice - 1029(T)/2013 is cancelled
Dampier Port Authority Notices 32/2013, 33/2013, 35/2013 (AA699565, AA699566, AA701917)

Available depths as at 14 October 2013:

		Metres	*Remarks*
	East Intercourse Island	19.1	
	East Intercourse Island Layby berth	19.4	
	East Intercourse Island Departure Channel	15.5	
	Rio Tinto Deep Water Channel	15.0	
	Parker Point berth 2	18.7	
	Parker Point berth 3	18.8	
	Parker Point berth 4	19.5	
	Parker Point berth 5	19.1	
	Parker Point Departure Channel	15.0	
	Parker Point Approach Channel	8.0	
	Fuel Wharf	11.4	
	Service Wharf	6.7	
	Mermaid Marine Supply Base Outer Channel	5.4	
	Mermaid Marine Supply Base Inner Channel	3.0	
	Berthing pocket	7.2	
*	Burrup Materials Facility	7.0	
	Dampier Cargo Wharf	9.0	Western side
		6.5	Eastern side
	Bulk Liquids Berth	12.4	
	Facilities Channel	11.0	

* Indicates new or revised entry.

Chart temporarily affected - Aus 58 - Aus 59 - Aus 60

1068(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Port Hedland - Depth information
Former Notice - 875(T)/2013 is cancelled
Port Hedland Port Authority Notice 13/2013 (AA701792)

Available depths as at 11 October 2013:

	Berth	*Metres*
	PHPA berth 1	13.2
	PHPA berth 2	13.2
*	PHPA berth 3	13.5
*	PHPA berth 4 (Utah Point)	14.7
*	BHP Billiton Nelson Point berth A	19.2
*	BHP Billiton Nelson Point berth B	19.0
	BHP Billiton Nelson Point berth C	19.1
*	BHP Billiton Nelson Point berth D	19.0
	BHP Billiton Finucane Island berth A	19.2
*	BHP Billiton Finucane Island berth B	19.3
*	BHP Billiton Finucane Island berth C	18.5
*	BHP Billiton Finucane Island berth D	19.3
*	Anderson Point berth 1	19.9
*	Anderson Point berth 2	19.7
*	Anderson Point berth 3	19.8
*	Anderson Point berth 4	19.7

* Indicates new or revised entry.

Chart temporarily affected - Aus 52 - Aus 54

1115(P)/2013 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Woodside Channel - Navaids
Dampier Port Authority 37/2013 (AA703702)

Navaids will be altered as follows:

	Position	*New Characteristic*
Woodside Channel Beacon	20° 26'.11 S 116° 43'.77 E	*Fl.R.3s*
W6	20° 30'.81 S 116° 43'.58 E	*Fl.R.3s*
No7	20° 32'.10 S 116° 43'.36 E	*Fl.R.3s*
No10	20° 33'.26 S 116° 43'.79 E	*Fl.R.3s*
No12	20° 34'.21 S 116° 44'.91 E	*Fl.R.3s*
No12A	20° 34'.32 S 116° 44'.81 E	*Fl.G.3s*
No14	20° 34'.80 S 116° 45'.67 E	*Fl.Y.3s*
No14A	20° 34'.88 S 116° 45'.42 E	*Fl.G.3s*
No15A	20° 35'.08 S 116° 45'.45 E	*Fl.G.3s*

Chart which will be affected - Aus 57 - Aus 58 - Aus 59

1117(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Montebello Islands - Light buoys northwestwards
Date - Until 1 March 2014
Viking Seatech (AA704614)

Eight yellow mooring buoys, *Fl.Y.5s*, exist within a 1M radius of position 19° 54'.35 S 115° 16'.12 E.

Chart temporarily affected - Aus 328

1118(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - North West Cape - Wells and pipelines northwards
Date - Until 26 December 2013
SapuraClough Offshore (AA703831)

Vessels *Stellaprima* and *SapuraKencana Constructor* are conducting works, which include the installation of subsea structures and flowlines, in an area bounded by the following positions:
21º 33'.0 S 114º 04'.5 E
21º 33'.0 S 114º 10'.0 E
21º 30'.0 S 114º 10'.0 E
21º 30'.0 S 114º 04'.5 E.

Chart temporarily affected - Aus 328 - Aus 329 - Aus 744

1119(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Seringapatam Reef - Seismic survey eastwards
Date - Until 7 January 2014
CGG (AA704532)

MV *Geo Caspian,* with a 9000m towed array, and support vessels *Pacific Parrot and Browse Invincible* are conducting a survey in the area bounded by the following positions:
14° 03'.5 S 123° 31'.7 E
12° 46'.3 S 123° 31'.8 E
12° 46'.4 S 124° 03'.4 E
14° 03'.5 S 124° 03'.4 E.

Chart temporarily affected - Aus 319 - Aus 320 - Aus 322 - Aus 4721 (INT 721) - Aus 4722 (INT 722) - AX 00319U - AX 00322U - AX 04721U - AX 04722U

1171(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Dampier Archipelago - Scientific instruments northwestwards
Former Notice - 629(T)/2010 is cancelled
Date - Until 30 June 2014
MetOcean Engineers (AA706103, AA706104)

Scientific instruments exist as follows:

Position	*Remarks*
19° 36'.01 S 116° 06'.79 E	lit buoy, *Q(5)Y.20s*
19° 36'.19 S 116° 06'.84 E	5 poly floats

Chart temporarily affected - Aus 327

1172(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Glomar Shoal - Scientific instruments
Date - Until 30 June 2014
MetOcean Engineers (AA706103, AA706104)

Scientific instruments marked by special light buoys, *Q(5)Y.20s,* exist in the following positions:
18° 45'.07 S 117° 01'.90 E
19° 31'.40 S 117° 02'.66 E
19° 31'.37 S 117° 02'.90 E.

Chart temporarily affected - Aus 327 - Aus 741

1173(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Glomar Shoal - Scientific instruments
Former Notice - 1067(T)/2013 is cancelled
Date - Until 30 June 2014
University of Western Australia (AA707013), MetOcean Engineers (AA706103, AA706104)

Subsurface scientific instruments, >20m below the surface, exist in the following positions:
19° 03'.00 S 117° 03'.60 E
19° 04'.80 S 116° 36'.00 E
19° 31'.20 S 117° 03'.00 E
19° 45'.46 S 117° 01'.23 E.

A subsurface scientific instrument, 12m below the surface, exists in position 19° 32'.38 S 116° 31'.66 E.

Chart temporarily affected - Aus 327 - Aus 741

1174(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Kwinana - Scientific instrument
Date - Until 7 May 2015
Fremantle Ports (AA706386)

A special cylindrical light buoy, *Fl.Y.4s,* exists in position 32° 12'.07 S 115° 46'.20 E.

Chart temporarily affected - Aus 114 - Aus 117 - AX 00117T

1176(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - North West Cape - Drill rig northwards
Former Notice - 1032(T)/2013 is cancelled
Date - Until 31 January 2014
MODU *Nan Hai 6* (AA705644), Australian Maritime Safety Authority Notice 270/2013 (AA705442)

Drill rig *Nan Hai 6* is conducting drilling operations in position 21° 32'.08 S 114° 09'.31 E.

Chart temporarily affected - Aus 328 - Aus 329 - Aus 744

1226(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Dampier - King Bay - Light buoy unlit; light buoy off station
Dampier Port Authority Notice 38/2013 (AA710497)

No13 light buoy (20° 37'.97 S 116° 45'.03 E) is unlit.

No17 light buoy (20° 37'.97 S 116° 45'.17 E) is off station.

Chart temporarily affected - Aus 59

1227(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - North West Cape - Light altered
Former Notice - 661(T)/2013 is cancelled
Date - Until 28 February 2014
Australian Maritime Safety Authority Temporary ATH 14/2013 (AA679583, AA709149)

The light (21° 48'.37 S 114° 09'.61 E) has been temporarily altered to *Fl.10s 129m 21M*

Chart temporarily affected - Aus 328 - Aus 329 - Aus 744 - Aus 745 - Aus 4723 (INT 723) - Aus 4725 (INT 725) - AX 04723U

1229(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Rosemary Island - Scientific instruments
Department of Transport WA Notice 183/2013 (AA708966)

Subsurface scientific instruments exist on the seabed in the following positions:
20° 27'.06 S 116° 35'.33 E
20° 27'.18 S 116° 35'.40 E
20° 27'.30 S 116° 35'.46 E
20° 27'.48 S 116° 35'.58 E.

Chart temporarily affected - Aus 57 - Aus 741 - Aus 742

1230(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Thevenard Island to Muiron Islands - Scientific instruments
Date - Until 31 May 2014
Department of Transport WA Notice 183/2013 (AA708966)

Subsurface scientific instruments exist on the seabed in the following positions:
21° 24'.45 S 114° 57'.58 E
21° 25'.50 S 114° 58'.20 E
21° 25'.73 S 114° 58'.31 E

21° 26'.28 S 114° 58'.61 E
21° 26'.81 S 114° 59'.00 E
21° 41'.10 S 114° 18'.90 E.

Chart temporarily affected - Aus 64 - Aus 743 - Aus 744

1284(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Cape Preston - Light buoys
Date - Until 31 May 2014
Department of Transport WA Notice 194/2013 (AA710742)

Special cylindrical light buoys, *Q*, exist in positions 20° 43'.91 S 116° 09'.85 E and 20° 43'.75 S 116° 10'.13 E.

Chart temporarily affected - Aus 68 - Aus 742

1285(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Dampier - Light buoy, racon and AIS unreliable
Dampier Port Authority Notice 40/2013 (AA712437)

The light buoy, *Q(4)Y.6s Racon (M) AIS* (20° 25'.44 S 116° 42.91 E), is unreliable.

Chart temporarily affected - Aus 57 - Aus 58 - Aus 741

1286(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Exmouth Gulf - Drill rig
MODU *Atwood Falcon* (AA712435)

Drill rig *Atwood Falcon* is conducting drilling operations in position 21° 55'.0 S 114° 14'.0 E.

Chart temporarily affected - Aus 328 - Aus 329 - Aus 744

1287(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Exmouth Plateau - Drill rig
Date - Until 15 January 2014
MODU *Ocean America* (AA710730), Australian Maritime Safety Authority Auscoast Warning 286/2013 (AA710732)

Drill rig *Ocean America* is conducting drilling operations in position 20° 30'.77 S 113° 01'.28 E.

Chart temporarily affected - Aus 329 - Aus 4723 (INT 723) - Aus 4725 (INT 725) - AX 04723U

1290(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Montebello Islands - Drill rig northwestwards
Former Notice - 1175(T)/2013 is cancelled
MODU *Deepwater Frontier* (AA712217)

Drill rig *Deepwater Frontier* is conducting drilling operations in position 19° 49'.81 S 114° 34'.13 E.

Chart temporarily affected - Aus 328 - Aus 4723 (INT 723) - AX 04723U

1291(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - Montebello Islands northwestwards - Mooring buoy; pipeline infrastructure
Former Notice - 314(T)/2013 is cancelled
Apache Energy Ltd (AA711597, AA711732, AA711758), Australian Maritime Safety Authority Auscoast Warning 289/2013 (AA711582)

A lit riser turret mooring buoy, *Mo(U)15s,* exists in position 20°03'.52 S 115°11'.52 E.

MV *Deep Orient* will be conducting pipeline installation in the area.

A 500m exclusion zone exists around the vessel and mooring buoy.

FPSO *Armada Claire* is scheduled to arrive on site mid February 2014.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 328

1292(T)/2013 AUSTRALIA - WESTERN AUSTRALIA - North West Cape - Drill rig northwestwards

Date - Until 15 January 2014
MODU *Jack Bates* (AA710968)

Drill rig *Jack Bates* is conducting drilling operations in position 21° 26'.25 S 113° 53'.49 E.

Chart temporarily affected - Aus 328 - Aus 329 - Aus 4723 (INT 723) - Aus 4725 (INT 725) - AX 04723U

SOUTH AUSTRALIA

720(T)/2008 AUSTRALIA - SOUTH AUSTRALIA - Port Adelaide - Shoaling
Former Notice - 240(T)/2006 is cancelled
Department for Transport, Energy and Infrastructure Notice 38/2007 (AA346443)

Silting has resulted in width restrictions being imposed in the main channel of the Port Adelaide River between No 40 beacon (34° 47'.86 S 138° 30'.79 E) and No 41 beacon (34° 48'.52 S 138° 30'.77 E).

Mariners should avoid the western side of the main channel and navigate with caution in this part of the River as the available navigable channel is now only 90 metres wide measured from the eastern edge.

Mariners intending to transit this section should contact the Manager Marine Operations, Flinders Ports Pty Ltd on (08) 8447 0622 to confirm maximum widths.

Chart temporarily affected - Aus 137

1344(T)/2011 AUSTRALIA - SOUTH AUSTRALIA - Gulf St Vincent - Obstruction
Former Notice - 534(T)/2011 is cancelled
Fugro LADS Corporation (AA534581)

An obstruction is reported to exist in position 34° 42'.37 S 138 15'.94 E.

Chart temporarily affected - Aus 781

71(T)/2012 AUSTRALIA - SOUTH AUSTRALIA - Wallaroo - Depth information
Former Notice - 176(T)/2009 is cancelled
Department for Transport, Energy and Infrastructure SA Notice 38/2010 (AA515239, AA515240)

Available depths as at 24 August 2010:

	Metres	*Remarks*
* No 1 South Berth	8.7	Berth pocket is 313m x 36m and is 84m in from outer edge of wharf.
* No 2 North Berth	8.7	Berth pocket is 246m x 36m and is 20m in from outer edge of wharf.

* Indicates new or revised entry.

Chart temporarily affected - Aus 133

73(T)/2013 AUSTRALIA - SOUTH AUSTRALIA - Great Australian Bight - Ceduna Terrace - Scientific instruments
Date - Until 31 December 2013
MetOcean Engineers (AA643598)

Scientific instruments marked by special light buoys, *Fl(5)Y.20s,* exist in positions 34° 28'.49 S 130° 45'.35 E and 34° 28'.37 S 130° 48'.61 E.

Chart temporarily affected - Aus 4727 (INT 727)

1121(P)/2013 AUSTRALIA - SOUTH AUSTRALIA - Spilsby Island - Shoal depths
LADS Flight (DHDB 42759)

Shoal depths have been reported to exist as follows:

Depth	*Position*
1.2m	34° 42'.08 S 136° 21.34 E
4.8m	34° 42'.04 S 136° 22.04 E.

Chart which will be affected - Aus 343 - Aus 485 - Aus 776 - AX 00343S - AX 00776S

1179(T)/2013 AUSTRALIA - SOUTH AUSTRALIA - Wallaroo - Light beacon destroyed
Department of Planning, Transport and Infrastructure SA Notice 31/2013 (AA707011)

No4 light beacon, *Fl.R.2s* (33° 54'.30 S 137° 34'.33 E), has been destroyed; a port lateral light buoy *Fl.WR* exists in situ.

Chart temporarily affected - Aus 133

1295(T)/2013 AUSTRALIA - SOUTH AUSTRALIA - Port Adelaide - Depth information
Former Notice - 838(T)/2013 is cancelled
Department of Planning, Transport and Infrastructure SA Notice 36/2013 (AA712585)

Available depths as at 5 December 2013:

	Berth	*Metres*
	Outer Harbor No1	11.0
	Outer Harbor No2	10.5
	Outer Harbor No3	10.5
	Outer Harbor No4	10.5
	Outer Harbor No6	13.8
	Outer Harbor No8	15.7
	Swinging Basin	13.7
	Osborne Wharf No1	8.3
*	Inner Harbor M	10.7

* Indicates new or revised entry

Chart temporarily affected - Aus 137

VICTORIA

796(T)/2007 AUSTRALIA - VICTORIA - Port Phillip - South channel - Obstruction
Victorian Notice 103(T)/2007 (AA282029)

An obstruction marked by 3 special light buoys, *Fl.Y.3s,* exists in position 38° 18'. 36 S 144° 46'. 47 E
Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 143 - Aus 158

514(T)/2008 AUSTRALIA - VICTORIA - Western Port - Phillip Island - Shoaling northwards
Victorian Notice 64(T)/2008 (AA333884)

Shoaling, least depth *13.4 metres,* exists at position 38° 25'.53 S 145° 13'.90 E extending 100 metres into the shipping channel .

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 150 - Aus 151

942(T)/2010 AUSTRALIA - VICTORIA - Port Phillip - Geelong - Depth information
Former Notice - 465(T)/2009 is cancelled
Victorian Notice 31(T)/2005, 104(T)/2005 (AA131863, AA203894), Victorain Regional Channels Authority (AA490300, AA490301)

Available depths as at 19 August 2010:

Berth	*Metres*
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.

Chart temporarily affected - Aus 153 - Aus 157

1291(T)/2010 AUSTRALIA - VICTORIA - Ninety Mile Beach - Obstructions
Former Notice - 458(T)/2007 is cancelled
Victorian Notice 51(T)/2007 (AA242065)

Suspended well heads exists within a 300m radius of position 38° 37'.65 S 146° 53'.75 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 357

723(T)/2011 AUSTRALIA - VICTORIA - Port Phillip - Great Ship Channel - Shoaling
Victorian Notice 89(T)/2011 (AA543561)

Shoaling, with a least depth of *16.7m,* exists in position 38° 18'.04 S 144° 37'.69 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 144 - Aus 158

1346(T)/2011 AUSTRALIA - VICTORIA - Port Phillip - South Channel - Exclusion zones
Victorian Notice 146(T)/2011 (AA571787)

As a result of shoaling, exclusion zones exists in the areas bounded by the following positions:
38° 17'.50 S 144° 39'.08 E
38° 17'.50 S 144° 39'.45 E
38° 17'.56 S 144° 39'.45 E
38° 17'.55 S 144° 39'.08 E,
and
38° 17'.65 S 144° 41'.13 E

38° 17'.88 S 144° 42'.27 E
38° 17'.90 S 144° 42'.27 E
38° 17'.67 S 144° 41'.13 E,
and
38° 17'.99 S 144° 42'.65 E
38° 18'.01 S 144° 42'.72 E
38° 18'.02 S 144° 42'.72 E
38° 18'.00 S 144° 42'.65 E,
and
38° 17'.80 S 144° 42'.85 E
38° 18'.14 S 144° 44'.52 E
38° 18'.17 S 144° 44'.51 E
38° 17'.83 S 144° 42'.84 E,
and
38° 18'.18 S 144° 45'.07 E
38° 18'.37 S 144° 46'.35 E
38° 18'.38 S 144° 46'.35 E
38° 18'.19 S 144° 45'.07 E.

Chart temporarily affected - Aus 144 - Aus 158

76(T)/2012 AUSTRALIA - VICTORIA - Port Phillip - South Channel - Scientific instruments
Victorian Notice 156(T)/2011 (AA575139)

Special light buoys, *Fl.Y.2s,* exist in positions 38° 20'.15 S 144° 52'.78 E and 38° 20'.12 S 144° 54'.54 E.

Chart temporarily affected - Aus 143 - Aus 158

131(T)/2012 AUSTRALIA - VICTORIA - Anderson Inlet - Shoaling
Former Notice - 1300(T)/2009 is cancelled
Victorian Notice 8(T)/2012 (AA577182)

Shoaling exists in the outer entrance channel of the Anderson Inlet entrance bar (38° 39'.0 S 145° 43'.0 E).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 801

579(T)/2012 AUSTRALIA - VICTORIA - Shoaling
Former Notice - 1301(T)/2009 is cancelled
Victorian Notice 88/2012 (AA602669)

Shoaling, with a least depth of *5.2m,* exists in the Barry Beach Channel (38° 43'.00 S 146° 22'.77 E).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 182

772(T)/2012 AUSTRALIA - VICTORIA - Port Phillip - Werribee South - Harbour works
Date - Until 30 January 2014
Victorian Notice 106(T)/2012 (AA613718)

Harbour works associated with the construction of a new marina are in progress in an area bounded by the following:

Position	*Remarks*
37° 58'.29 S 144° 42'.27 E	special conical buoy, without topmark
37° 58'.31 S 144° 42'.36 E	special conical light buoy, *Fl.Y.7s*, with topmark
37° 58'.32 S 144° 42'.46 E	special conical buoy, without topmark
37° 58'.28 S 144° 42'.55 E	special conical light buoy, *Fl.Y.7s*, with topmark
37° 58'.23 S 144° 42'.63 E	special conical buoy, without topmark
37° 58'.17 S 144° 42'.69 E	special conical light buoy, *Fl.Y.7s*, with topmark
37° 58'.10 S 144° 42'.75 E	special conical buoy, without topmark
37° 58'.04 S 144° 42'.81 E	special conical light buoy, *Fl.Y.7s*, with topmark
37° 57'.97 S 144° 42'.86 E	special conical buoy, without topmark
37° 57'.89 S 144° 42'.85 E	special conical light buoy, *Fl.Y.7s*, with topmark
37° 57'.81 S 144° 42'.82 E	special conical buoy, without topmark.

All hazards to navigation will display appropriate lights.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 143 - Aus 155

75(T)/2013 AUSTRALIA - VICTORIA - Port Phillip - River Yarra - Appleton Dock - Harbour works
Former Notice - 77(T)/2011 is cancelled
Date - Until 30 June 2014
Victorian Notice 183(T)/2012 (AA643590)

Works associated with the remediation of berths B to F are in progress (37° 49'.02 S 144° 55'.31 E).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 154

572(T)/2013 AUSTRALIA - VICTORIA - Port Phillip - River Yarra - Yarraville - Harbour works
Date - Until 21 June 2013
Victorian Notice 73(T)/2013 (AA674856)

Works associated with the demolition of derelict wharf and the construction of a rock revetment and retaining wall are in progress at berth 5 (37° 49'.18 S 144° 54'.34 E).

Barge 74 and support vessels are on site and will display appropriate lights.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 154

732(T)/2013 AUSTRALIA - VICTORIA - Port Phillip - River Yarra - Victoria Dock - Harbour works
Date - Until 31 March 2014
Victorian Notice 94(T)/2013 (AA682953)

Rehabilitation works and diving operations are in progress at Victoria Dock (37° 49'.09 S 144° 55'.74 E).

Barges and pontoons are on site.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 154

879(T)/2013 AUSTRALIA - VICTORIA - Port Phillip - St Kilda - Harbour works
Former Notice - 532(T)/2013 is cancelled
Date - Until 20 December 2013
Victorian Notice 19(T)/2013, 46(T)/2013, 66(T)/2013, 116(T)/2013 (AA649627, AA664916, AA671811, AA691479)

Works associated with the development of a new marina are in progress.

Temporary landings will be installed in positions 37° 51'.63 S 144° 57'.95 E, 37° 51'.83 S 144° 57'.85 E and 37° 51'.64 S 144° 57'.76 E.

A temporary groyne will be installed between positions 37° 51'.64 S 144° 58'.17 E and 37° 51'.63 S 144° 57'.95 E. Special light buoys, *Fl.Y.5s,* which mark the groyne exist in positions 37° 51'.61 S 144° 57'.94 E and 37° 51'.67 S 144° 57'.97 E.

Lit piles and special light buoys, *Fl.Y.5s,* which mark the construction zone exist in the following positions:
37° 51'.641 S 144° 57'.743 E
37° 51'.644 S 144° 57'.862 E
37° 51'.642 S 144° 57'.941 E
37° 51'.609 S 144° 57'.837 E
37° 51'.612 S 144° 57'.830 E
37° 51'.616 S 144° 57'.824 E
37° 51'.619 S 144° 57'.818 E
37° 51'.622 S 144° 57'.811 E
37° 51'.626 S 144° 57'.805 E
37° 51'.629 S 144° 57'.798 E
37° 51'.633 S 144° 57'.791 E.

Works associated with the demolition and reconstruction of the jetty are in progress in an area marked by special conical lights buoys, *Fl.Y.5s*, bounded by the following positions:
37° 51'.80 S 144° 57'.98 E
37° 51'.83 S 144° 57'.99 E
37° 51'.87 S 144° 57'.99 E
37° 51'.87 S 144° 57'.94 E
37° 51'.87 S 144° 57'.93 E
37° 51'.83 S 144° 57'.92 E.

All hazards to navigation will be marked by lights.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 155

935(T)/2013 AUSTRALIA - VICTORIA - Port Phillip - Patterson River - Shoaling
Victorian Notice 119(T)/2013 (AA693049)

Shoaling, with least depth *0.5m,* exists within the entrance to Patterson River (38° 04'.41 S 145° 07'.17 E).

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 143

936(T)/2013 AUSTRALIA - VICTORIA - Port Phillip - Gellibrand Pier - Harbour works
Victorian Notice 117(T)/2013 (AA693380)

Harbour works associated with the rehabilitation of the pier (37° 51'.80 S 144° 54'.87 E) are in progress.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 154 - Aus 155

937(T)/2013 AUSTRALIA - VICTORIA - Port Phillip - South Channel - Shoaling; virtual AIS
Former Notice - 1063(T)/2012 is cancelled
Victorian Notices 141(T)/2012, 28(T)/2013, 122(T)/2013 (AA630248, AA655972, AA694016)

Virtual AIS exist as follows:

Identification message	*Position*
TB1	38° 18'.11 S 144° 43'.86 E
TB2	38° 18'.23 S 144° 44'.39 E
TB3	38° 18'.29 S 144° 45'.51 E

Shoaling with a least depth of *14.8m* exists in the vicinity and north of the virtual buoys. Deep draught vessels should pass to the south of the buoys.

Chart temporarily affected - Aus 144 - Aus 158

991(P)/2013 AUSTRALIA - VICTORIA - Port Phillip - South Channel - Light beacons to be established
Former Notice - 839(P)/2013 is cancelled
Date - On or about 25 September 2013
Victorian Notice 127(T)/2013 (AA695799)

Light beacons will be established as follows:

	Position	*Remarks*
No23	38° 18'.81 S 144° 55'.95 E	*Fl(3)G.10s 5M*
No24	38° 17'.93 S 144° 53'.92 E	*Fl.5s 11M*
No25	38° 17'.93 S 144° 55'.95 E	*Fl(4)G.12s 8M*

Chart which will be affected - Aus 143 - Aus 158

1071(T)/2013 AUSTRALIA - VICTORIA - Port Phillip - Queenscliff - Harbour works
Date - Until 29 November 2013
Victorian Notice (AA701212)

Harbour works associated with the upgrade of the berth (38° 15'.88 S 144° 40'.30 E) are in progress.

Barges and a support vessels are on site and will display appropriate lights and shapes.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 143

1072(P)/2013 AUSTRALIA - VICTORIA - Western Port - Rutherford Inlet - Beacons; mooring piles
Date - On or about 5 November 2013
Victorian Notice 132(T)/2013 (AA701188)

Beacons will be repositioned as follows:

	Current Position	*New Position*
No24	38° 14'.08 S 145° 18'.44 E	38° 14'.076 S 145° 18'.447 E
No13	38° 13'.99 S 145° 18'.45 E	38° 13'.993 S 145° 18'.442 E
No26	38° 13'.75 S 145° 18'.36 E	38° 13'.752 S 145° 18'.368 E

28 unlit mooring piles will be established between positions 38° 14'.08 S 145° 18'.47 E and 38° 13'.78 S 145° 18'.38 E.

Chart which will be affected - Aus 151 - Aus 152

1122(T)/2013 AUSTRALIA - VICTORIA - Port Phillip - Chelsea - Buoy off station
Victorian Notice 146(T)/2013 (AA704718)

No2 buoy (38° 03'.07 S 145° 04'.53 E) is off station.

Chart temporarily affected - Aus 143 - Aus 155

1180(T)/2013 AUSTRALIA - VICTORIA - Otway Basin - Pipeline established
Former Notice - 275(T)/2013 is cancelled
Origin Energy (AA620979, AA654442 - AA654445)

A pipeline exists between positions 39° 06'.94 S 142° 56'.00 E and 39° 06'.49 S 142° 57'.10 E.

Note: charts will be updated on receipt of as laid positions.

Chart temporarily affected - Aus 349 - Aus 787

1181(T)/2013 AUSTRALIA - VICTORIA - Port Phillip - Davey Point - Beacon destroyed
Victorian Notice 148(T)/2013 (AA705830)

The north cardinal beacon (38° 09'.67 S 145° 05'.08 E) has been destroyed.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 143

1184(P)/2013 AUSTRALIA - VICTORIA - Port Phillip - South Channel - Toe lines
Victorian Notice 149/2013 (AA707025)

Toe lines have been amended to the following positions:
38° 17'.55 S 144° 38'.38 E
38° 17'.49 S 144° 39'.02 E
38° 17'.51 S 144° 40'.33 E
38° 17'.58 S 144° 40'.67 E
and
38° 18'.16 S 144° 44'.60 E
38° 18'.55 S 144° 47'.19 E.

Note: new editions of charts are in production.

Chart which will be affected - Aus 143 - Aus 144 - Aus 158

1185(T)/2013 AUSTRALIA - VICTORIA - Port Phillip - Port Melbourne Channel - Light buoys
Date - Until 30 March 2014

Victorian Notice 142(T)/2013 (AA707098, AA707099)

Special pillar light buoys, *VQ(4)Y.4s*, exist in the following positions:
37° 58'.87 S 144° 55'.69 E
37° 58'.86 S 144° 54'.96 E
37° 56'.58 S 144° 55'.77 E
37° 56'.57 S 144° 55'.07 E.

Chart temporarily affected - Aus 155

1232(T)/2013 AUSTRALIA - VICTORIA - Port Phillip - St Leonards - Harbour works
Date - Until 28 March 2014
Victorian Notice 169(T)/2013 (AA710411)

Harbour works associated with the remediation of the jetty (38° 10'.21 S 144° 43'.25 E) are in progress.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 143 - Aus 157 - Aus 158

1233(T)/2013 AUSTRALIA - VICTORIA - Warrnambool - Seismic survey southwards
Origin Energy, WHL Energy Ltd (AA707727)

MV *Viking II,* with a 6100m towed array, and support vessels MV *Pacific Protector* and MV *Northern Star* are conducting a survey in an area bounded by the following positions:
39° 01'.39 S 142° 14'.96 E
39° 13'.94 S 142° 50'.95 E
38° 57'.68 S 142° 53'.83 E
38° 46'.03 S 142° 17'.65 E.

Chart temporarily affected - Aus 349 - Aus 787

1296(T)/2013 AUSTRALIA - VICTORIA - Western Port - Drilling operations; survey
Date - Until 30 June 2014
Victorian Notices 162(T)/2013, 177(T)/2013 (AA712873, AA712875)

Survey and drilling operations are in progress between the fairway buoy (38° 30'.21 S 145° 05'.36 E) and Crawfish Rock (38° 16'.21 S 145° 17'.78 E); plus extends into East Arm within the area of the port limits.

Barges *Sealift 1 and Sealift 2* and support vessels are on site. A 100m exclusion zone exists around the barges.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 150 - Aus 151 - Aus 152

TASMANIA

91(T)/2010 AUSTRALIA - TASMANIA - Georges Bay - Wreck
Former Notice - 1204(T)/2009 is cancelled
Marine and Safety Tasmania Notice M3/2010 (AA447779)

A stranded wreck exists in position 41° 16'.24 S 148° 20'.07 E, with a floating line marked by a white poly-float leading to an anchor in position 41° 16'.20 S 148° 20'.13 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 169

1291(T)/2011 AUSTRALIA - TASMANIA - Adventure Bay to Pitt Water - Scientific instruments
Date - Until 30 March 2013
Marine and Safety Tasmania Notice M150/2011 (AA570022)

Subsurface scientific instruments exist in the following positions:

43° 31'.43 S 147° 17'.77 E	43° 27'.49 S 147° 13'.39 E
43° 18'.05 S 147° 23'.62 E	43° 14'.53 S 147° 47'.71 E
43° 06'.26 S 147° 41'.81 E	43° 05'.12 S 147° 29'.17 E
43° 02'.37 S 147° 28'.49 E	42° 57'.96 S 147° 33'.29 E
42° 57'.85 S 147° 33'.84 E	42° 57'.73 S 147° 34'.44 E
42° 57'.62 S 147° 34'.99 E	42° 57'.49 S 147° 35'.60 E
42° 57'.39 S 147° 36'.19 E	42° 57'.26 S 147° 36'.79 E
42° 57'.15 S 147° 37'.41 E	42° 57'.14 S 147° 39'.22 E
42° 57'.04 S 147° 38'.01 E	42° 56'.98 S 147° 39'.67 E
42° 56'.42 S 147° 32'.59 E	42° 55'.81 S 147° 40'.74 E
42° 55'.80 S 147° 34'.87 E	42° 55'.42 S 147° 36'.65 E
42° 55'.36 S 147° 40'.76 E	42° 55'.12 S 147° 31'.82 E
42° 54'.92 S 147° 40'.78 E	42° 54'.64 S 147° 33'.74 E
42° 54'.47 S 147° 40'.80 E	42° 54'.33 S 147° 30'.50 E
42° 54'.19 S 147° 35'.44 E	42° 53'.86 S 147° 37'.19 E
42° 53'.71 S 147° 32'.59 E	42° 52'.87 S 147° 34'.22 E
42° 52'.60 S 147° 36'.25 E	42° 52'.35 S 147° 32'.09 E
42° 53'.23 S 147° 31'.15 E	42° 51'.82 S 147° 30'.91 E
42° 51'.80 S 147° 33'.36 E	42° 51'.70 S 147° 34'.84 E
42° 51'.40 S 147° 36'.01 E	42° 51'.06 S 147° 32'.08 E
42° 50'.90 S 147° 36'.92 E	42° 50'.73 S 147° 35'.11 E
42° 50'.69 S 147° 33'.58 E	42° 49'.79 S 147° 36'.18 E
42° 49'.17 S 147° 34'.70 E	42° 48'.72 S 147° 32'.46 E
42° 48'.72 S 147° 34'.04 E	42° 48'.43 S 147° 29'.38 E
42° 48'.43 S 147° 29'.59 E	42° 48'.43 S 147° 29'.80 E
42° 48'.43 S 147° 30'.02 E	42° 48'.41 S 147° 33'.19 E
42° 48'.29 S 147° 31'.42 E	42° 48'.25 S 147° 29'.27 E
42° 48'.25 S 147° 29'.48 E	42° 48'.25 S 147° 29'.69 E
42° 48'.25 S 147° 29'.91 E	42° 48'.25 S 147° 30'.13 E
42° 48'.07 S 147° 29'.69 E	42° 48'.07 S 147° 29'.91 E
42° 48'.07 S 147° 30'.13 E	42° 47'.99 S 147° 28'.66 E
42° 47'.87 S 147° 29'.80 E	42° 47'.87 S 147° 30'.02 E.

Chart temporarily affected - Aus 171 - Aus 173 - Aus 796

1292(T)/2011 AUSTRALIA - TASMANIA - Flinders Island - Lady Barron - Light unreliable
Date - Until 20 December 2011
Marine and Safety Tasmania Notice M144/2011 (AA569730)

The light, *F.WRG.48m 10M* (40° 12'.45 S 148° 14.76 E), is unreliable.

Chart temporarily affected - Aus 179 - Aus 800

576(T)/2012 AUSTRALIA - TASMANIA - Frederick Henry Bay - Scientific instruments
Former Notice - 1229(T)/2011 is cancelled
Date - Until 20 September 2013
Marine and Safety Tasmania (AA602526)

Scientific instruments marked by special conical light buoys exist as follows:

Position	*Characteristic*
42° 56'.2 S 147° 37'.2 E	*Iso.4s*
42° 58'.2 S 147° 34'.0 E	*Oc.3s*.

Chart temporarily affected - Aus 171 - Aus 796

122(T)/2013 AUSTRALIA - TASMANIA - Maria Island - Scientific instruments
Date - Until 28 February 2014
University of Tasmania (AA647460, AA647461)

Subsurface scientific instruments exist on the seabed in the following positions:
42° 40'.08 S 147° 58'.04 E
42° 39'.99 S 147° 58'.60 E
42° 39'.91 S 147° 59'.16 E
42° 39'.82 S 147° 59'.72 E
42° 39'.74 S 148° 00'.28 E.

Subsurface scientific instruments exist 30m below the surface in the following positions:
42° 39'.08 S 148° 10'.40 E
42° 39'.28 S 148° 10'.92 E
42° 39'.48 S 148° 11'.44 E
42° 39'.68 S 148° 11'.96 E
42° 39'.88 S 148° 12'.49 E
42° 40'.08 S 148° 13'.01 E
42° 40'.28 S 148° 13'.53 E
42° 40'.48 S 148° 14'.05 E
42° 40'.68 S 148° 14'.57 E
42° 40'.88 S 148° 15'.10 E
42° 41'.08 S 148° 15'.62 E
42° 41'.28 S 148° 16'.14 E
42° 41'.48 S 148° 16'.66 E
42° 41'.68 S 148° 17'.18 E
42° 41'.88 S 148° 17'.71 E
42° 42'.08 S 148° 18'.23 E
42° 42'.28 S 148° 18'.75 E
42° 42'.48 S 148° 19'.27 E
42° 42'.68 S 148° 19'.79 E
42° 42'.87 S 148° 20'.32 E
42° 43'.07 S 148° 20'.84 E
42° 43'.26 S 148° 21'.26 E.

Chart temporarily affected - Aus 170 - Aus 766 - Aus 797

179(T)/2013 AUSTRALIA - TASMANIA - Hobart - New Town Bay - Wreck
Marine and Safety Tasmania Notice M22/2013 (AA650422)

A wreck exists in position 42° 50'.66 S 147° 19'.21 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 171 - Aus 172

233(T)/2013 AUSTRALIA - TASMANIA - Cape Sonnerat - Wreck
Marine and Safety Tasmania Notice M25/2013 (AA653456)

A wreck exists in position 42° 20'.67 S 148° 19'.99 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 169 - Aus 766

276(T)/2013 AUSTRALIA - TASMANIA - Macquarie Harbour - Marine farm
Marine and Safety Tasmania Notice M26/2013 (AA656380)

Mariners are advised the marine farm has extended its boundaries as follows:
42° 15'.54 S 145° 18'.75 E

42° 15'.11 S 145° 19'.57 E
42° 15'.71 S 145° 20'.13 E
42° 16'.14 S 145° 19'.30 E.

Chart temporarily affected - Aus 177

277(T)/2013 AUSTRALIA - TASMANIA - Hawkers Point - Pipeline
Date - Until 3 December 2013
Marine and Safety Tasmania Notice M34/2013 (AA655987)

Pipe laying operations are in progress in an area, marked by special buoys, bounded by the following positions:
43° 20'.19 S 147° 00'.93 E
43° 20'.17 S 147° 00'.87 E
43° 20'.47 S 147° 00'.81 E
43° 20'.44 S 147° 00'.75 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 173

364(T)/2013 AUSTRALIA - TASMANIA - River Tamar - Light beacon destroyed
Marine and Safety Tasmania Notices M45/2013, M47/2013 (AA662937, AA663470)

No10 light beacon, *Q(2)R.4s* (41° 23'.71 S 147° 06'.15 E), has been destroyed; a port lateral light buoy, *Q(2)R.4s,* exists in situ.

Chart temporarily affected - Aus 168

662(T)/2013 AUSTRALIA - TASMANIA - Stanley - North Point - Beacon destroyed
Marine and Safety Tasmania Notice M70/2013 (AA680160)

The beacon (40° 42'.60 S 145° 16'.25 E) has been destroyed.

Chart temporarily affected - Aus 790

940(T)/2013 AUSTRALIA - TASMANIA - D'Entrecasteaux Channel - Beacon destroyed
Marine and Safety Tasmania Notice M87/2013 (AA693024)

The south cardinal beacon (43° 03'.50 S 147° 19'.81 E) has been destroyed.

Chart temporarily affected - Aus 171 - Aus 173 - Aus 174

1073(T)/2013 AUSTRALIA - TASMANIA - Bruny Island - Kinghorne Point - Light
Marine and Safety Tasmania Notice M102/2013 (AA701913)

The light (43° 09'.96 S 147° 16'.56 E) has been temporarily altered to *Fl.3s.*

Chart temporarily affected - Aus 173 - Aus 795 - Aus 796

1074(T)/2013 AUSTRALIA - TASMANIA - Cape Barren Island - Scientific instruments
Date - Until 30 June 2015
Institute for Marine and Antarctic Studies (AA701662 - AA701664), Marine and Safety Tasmania Notice M104/2013 (AA701665)

Subsurface scientific instruments exist on the seabed in the following positions:
40° 26'.38 S 148° 28'.97 E
40° 26'.51 S 148° 29'.51 E
40° 26'.65 S 148° 30'.05 E
40° 26'.78 S 148° 30'.59 E.

Subsurface scientific instruments exist >30m below the surface in the following positions:
40° 26'.91 S 148° 31'.12 E
40° 27'.05 S 148° 31'.66 E
40° 27'.18 S 148° 32'.20 E
40° 27'.31 S 148° 32'.74 E

40° 27'.44 S 148° 33'.27 E
40° 27'.58 S 148° 33'.81 E
40° 27'.71 S 148° 34'.35 E
40° 27'.84 S 148° 34'.89 E
40° 27'.97 S 148° 35'.43 E
40° 28'.11 S 148° 35'.96 E
40° 28'.24 S 148° 36'.50 E
40° 28'.37 S 148° 37'.04 E
40° 28'.50 S 148° 37'.58 E
40° 28'.64 S 148° 38'.12 E
40° 28'.77 S 148° 38'.65 E
40° 28'.90 S 148° 39'.19 E
40° 29'.03 S 148° 39'.73 E
40° 29'.16 S 148° 40'.27 E
40° 29'.30 S 148° 40'.81 E
40° 29'.43 S 148° 41'.35 E
40° 29'.56 S 148° 41'.88 E
40° 29'.69 S 148° 42'.42 E
40° 29'.82 S 148° 42'.96 E
40° 29'.96 S 148° 43'.50 E
40° 30'.09 S 148° 44'.04 E
40° 30'.22 S 148° 44'.58 E
40° 30'.35 S 148° 45'.12 E
40° 30'.48 S 148° 45'.65 E
40° 30'.61 S 148° 46'.19 E
40° 30'.75 S 148° 46'.73 E
40° 30'.88 S 148° 47'.27 E
40° 31'.01 S 148° 47'.81 E
40° 31'.14 S 148° 48'.35 E
40° 31'.27 S 148° 48'.89 E
40° 31'.40 S 148° 49'.40 E
40° 31'.52 S 148° 49'.90 E.

Chart temporarily affected - Aus 487 - Aus 798 - Aus 800

1075(T)/2013 AUSTRALIA - TASMANIA - Georges Bay - Pelican Point - Dredging operations
Date - Until 30 November 2013
Marine and Safety Tasmania Notice M105/2013 (AA702194)

SSAT Dredge is conducting dredging operations in the vicinity of Pelican Point (41° 17'.35 S 148° 19'.52 E).

A pipeline exists from a barge to the shore and mariners must pass the barge on the western side. All mooring anchors will be marked by buoys.

Vessels transiting the area must contact *SSAT Dredge* via VHF radio prior to transit as restrictions are in place.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 169

1076(T)/2013 AUSTRALIA - TASMANIA - Mercury Passage - Light buoy destroyed
Marine and Safety Tasmania Notice 99/2013 (AA700219)

The special light buoy, *Fl.Y.4s* (42° 35'.34 S 147° 58'.41 E), has been destroyed.

Chart temporarily affected - Aus 170 - Aus 766 - Aus 797

1125(T)/2013 AUSTRALIA - TASMANIA - D'Entrecasteaux Channel - Marine farm
Date - Until 30 November 2013
Marine and Safety Tasmania Notice 110/2013 (AA704160)

Mariners are advised the marine farm has extended its boundaries as follows:
43° 18'.27 S 147° 06'.09 E
43° 18'.20 S 147° 06'.64 E
43° 19'.01 S 147° 06'.64 E
43° 18'.95 S 147° 06'.09 E.

Chart temporarily affected - Aus 173

1189(T)/2013 AUSTRALIA - TASMANIA - Macquarie Harbour - Scientific instruments
Marine and Safety Tasmania M119/2013 (AA706392)

Subsurface scientific instruments >20m below the surface, marked by a subsurface buoy 15m below the surface, exist in the following positions:
42° 16'.22 S 145° 19'.41 E
42° 17'.72 S 145° 20'.52 E
42° 22'.93 S 145° 27'.79 E
42° 11'.74 S 145° 17'.71 E
42° 18'.16 S 145° 24'.42 E
42° 21'.63 S 145° 24'.74 E
42° 09'.74 S 145° 19'.21 E
42° 19'.28 S 145° 22'.48 E
42° 22'.58 S 145° 28'.26 E
42° 18'.56 S 145° 23'.77 E
42° 16'.02 S 145° 18'.69 E
42° 14'.99 S 145° 20'.10 E.

Subsurface scientific instruments <20m below the surface, marked by a subsurface buoy 3m above the seabed, exist in the following positions:
42° 20'.24 S 145° 20'.78 E
42° 15'.80 S 145° 14'.42 E
42° 17'.44 S 145° 18'.18 E
42° 12'.65 S 145° 21'.45 E
42° 21'.45 S 145° 32'.87 E
42° 17'.23 S 145° 18'.69 E
42° 14'.53 S 145° 21'.48 E
42° 22'.82 S 145° 32'.28 E
42° 11'.51 S 145° 18'.13 E
42° 22'.13 S 145° 28'.61 E
42° 21'.88 S 145° 32'.15 E
42° 17'.04 S 145° 16'.25 E
42° 14'.64 S 145° 21'.02 E
42° 10'.31 S 145° 19'.20 E
42° 17'.04 S 145° 19'.29 E
42° 10'.93 S 145° 18'.39 E
42° 21'.06 S 145° 30'.19 E
42° 12'.21 S 145° 17'.45 E
42° 17'.16 S 145° 17'.73 E
42° 14'.53 S 145° 21'.48 E
42° 19'.56 S 145° 21'.94 E
42° 22'.57 S 145° 31'.12 E
42° 16'.72 S 145° 18'.90 E
42° 18'.74 S 145° 18'.90 E
42° 22'.59 S 145° 31'.90 E
42° 17'.55 S 145° 19'.23 E
42° 18'.61 S 145° 19'.55 E
42° 18'.01 S 145° 20'.12 E
42° 21'.66 S 145° 29'.68 E
42° 21'.92 S 145° 24'.65 E
42° 24'.86 S 145° 27'.47 E
42° 16'.82 S 145° 19'.69 E
42° 17'.41 S 145° 19'.90 E
42° 23'.78 S 145° 28'.02 E.

Chart temporarily affected - Aus 177 - Aus 792

1235(T)/2013 AUSTRALIA - TASMANIA - D'Entrecasteaux Channel - Huon Point - Scientific instrument
Date - Until 19 December 2013
Marine and Safety Tasmania M123/2013 (AA708829)

A scientific instrument, marked by a buoy, exists in position 43° 17'.50 S 147° 06'.65 E.

Chart temporarily affected - Aus 173 - Aus 795

1237(T)/2013 AUSTRALIA - TASMANIA - Nubeena - Wreck
Marine and Safety Tasmania Notice 120/2013 (AA708638, AA708599)

A stranded wreck exists in position 43° 06'.18 S 147° 44'.45 E.

Chart temporarily affected - Aus 171

1238(T)/2013 AUSTRALIA - TASMANIA - Wedge Bay - Marine farm
Date - Until 27 December 2013
Marine and Safety Tasmania Notice M122/2013 (AA708816)

Mariners are advised the marine farm has extended its boundaries as follows:
43° 06'.25 S 147° 41'.23 E
43° 06'.07 S 147° 42'.26 E
43° 06'.28 S 147° 42'.30 E
43° 06'.46 S 147° 41'.27 E.

Chart temporarily affected - Aus 171 - Aus 796

1297(T)/2013 AUSTRALIA - TASMANIA - Macquarie Harbour - Scientific instrument
Date - Until 11 June 2014
Marine and Safety Tasmania M129/2013 (AA711802)

A scientific instrument 15m below the surface exists in position 42° 20'.82 S 145° 25'.20 E

Chart temporarily affected - Aus 177 - Aus 792

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)

1286(T)/2011 PAPUA NEW GUINEA - Bougainville Island - Lights unlit
Former Notice - 1159(T)/2011 is cancelled
National Maritime Safety Authority PNG Notices 22/2011, 46/2011, 52/2011 (AA535709, AA565338, AA569723)

The following lights are unlit:

Location	*Position*
Otua Island (K4886)	6° 27'.50 S 155° 58'.40 E
Takanupei Island (K4884.4)	6° 08'.86 S 155° 34'.31 E
Dokome Point (K4885.2)	6° 10'.91 S 155° 32'.94 E
Kerekerina Point (K4885)	6° 11'.30 S 155° 33'.56 E
Arawa Bay (K4884.6)	6° 13'.74 S 155° 34'.37 E
Banaru Reef (K4885.7)	6° 08'.30 S 155° 39'.03 E
Moto Reef (K4885.8)	6° 08'.77 S 155° 39'.52 E
Wogoromodo Reef (K4885.6)	6° 10'.12 S 155° 39'.03 E
Cape Laverdy (K4884)	5° 32'.49 S 155° 03'.88 E

Chart temporarily affected - Aus 399 - Aus 683 - Aus 4622 (INT 622)

904(T)/2012 PAPUA NEW GUINEA - Lae - Dredging operations
Date - Until 31 January 2014
PNG Ports Corporation Ltd (AA622596 - AA622602)

Dredges *Tianji* and *Jinhangjun* 406 and support vessels are conducting dredging operations associated with the new harbour development in an area bounded by the following:

Position	*Remarks*
6° 43'.81 S 146° 58'.15 E	
6° 43'.57 S 146° 58'.83 E	
6° 44'.21 S 146° 58'.84 E	
6° 44'.24 S 146° 58'.92 E	
6° 44'.53 S 146° 58'.86 E	special pillar light buoy, *Q.Y*
6° 44'.83 S 146° 59'.06 E	special pillar light buoy, *Q.Y*
6° 44'.83 S 146° 58'.51 E	special pillar light buoy, *Q.Y*
6° 44'.35 S 146° 58'.56 E.	

An exclusion zone exists within this area.

A lit floating pipeline exists between positions 6° 44'.54 S 146° 58'.84 E and 6° 44'.22 S 146° 58'.69 E.

Mariners are advised to navigate with caution in the area.

Chart temporarily affected - Aus 643

164(T)/2013 PAPUA NEW GUINEA - Nuakata Passage - Oreore Channel - Light beacon destroyed
National Maritime Safety Authority PNG Notice 2(T)/2013 (AA650413)

The port lateral light beacon, *Q.R* (10° 13'.69 S 150° 52'.77 E), has been destroyed.

Chart temporarily affected - Aus 628

166(T)/2013 PAPUA NEW GUINEA - Condor Point - Light unlit
National Maritime Safety Authority PNG Notice 4(T)/2013 (AA649248)

The light, *Fl(2)8s 15m 10M* (4° 07'.12 S 144° 51'.70 E), is unlit.

Chart temporarily affected - Aus 388 - Aus 4622 (INT 622)

351(T)/2013 PACIFIC OCEAN - Scientific instruments
Former Notice - 873(T)/2012 is cancelled
JAMSTEC (AA660644)

Scientific instruments, Triton buoys, exist as follows:

Number	*Position*
4	0° 00'.97 N 156° 02'.50 E
5	2° 01'.03 S 155° 57'.52 E
6	5° 02'.01 S 156° 01'.54 E
9	0° 03'.54 N 147° 00'.68 E.

Chart temporarily affected - Aus 399 - Aus 4622 (INT 622)

771(T)/2013 PAPUA NEW GUINEA - Cape Sueusat - Light unlit
National Maritime Safety Authority PNG Notice 34(T)/2013 (AA686044)

The light, *Fl.5s 9m 10M* (2° 37'.02 S 150° 46'.60 E), is unlit.

Chart temporarily affected - Aus 392 - Aus 393 - Aus 543 - Aus 666

824(T)/2013 PAPUA NEW GUINEA - Cape Croisilles - Light unlit
National Maritime Safety Authority PNG Notice 37/2013 (AA688010)

The light, *Fl(2)6s 17m 10M* (4° 50'.89 S 145° 48'.33 E), is unlit.

Chart temporarily affected - Aus 387 - Aus 388 - Aus 4622 (INT 622)

918(T)/2013 PAPUA NEW GUINEA - Port Moresby - Lark Patch - Light beacon destroyed
National Maritime Safety Authority PNG Notice 39(T)/2013 (AA692723)

The light beacon, *Fl.R.3s 7m 4M* (9° 31'.56 S 147° 08'.53 E), has been destroyed.

Chart temporarily affected - Aus 505 - Aus 621

1062(T)/2013 PAPUA NEW GUINEA - Unei Island - Light unlit
National Maritime Safety Authority PNG Notice 49(T)/2013 (AA701693)

The light, *Fl(4)16s 6m 9M* (3° 22'.69 S 143° 24'.58 E), is unlit.

Chart temporarily affected - Aus 389 - Aus 651 - Aus 4622 (INT 622)

EAST TIMOR

NIL

MISCELLANEOUS