DEPTHS IN METRES

SEE RELATED PUBLICATIONS: Notice to Mariners (https://www.transport.wa.gov.au/imarine/nautical-charts.asp), Symbols, Abbreviations and Terms (INT 1), Tide Tables, Sailing Directions. For surveys beyond this chart refer to RAN Charts AUS 754 and AUS 334.

AUSTRALIA - WEST COAST

WESTERN AUSTRALIA

OCEAN REEF TO CAPE PERON

SCALE 1 : 75 000

DEPTHS
Depths are shown in metres and decimetres, reduced to Sounding Datum, which is approximately lowest water level.

HEIGHTS
Heights are shown in metres. Underlined figures are drying heights above Sounding Datum. Overhead clearance heights are above Highest Astronomical Tide. All other heights are above Mean Higher High Water.

POSITIONS
Positions on this chart are referenced to the Map Grid of Australia, Zone 50, based on the Geocentric Datum of Australia 1994 (GDA94). For GPS use, this approximates WGS84.

PROJECTION
Universal Transverse Mercator.

SOURCES
From the latest information available to Department of Transport (DOT), 2009.

NAVIGATION MARKS
IALA Maritime Buoyage System - Region A (Red to Port).

CHART AMENDMENTS
The information provided on this chart is correct at time of publication. As this information is subject to change, ensure the latest version of the chart is used at all times and is kept up-to-date with reference to the following:

Notices to Mariners
Changes of a safety or navigational nature will be reflected in Notices to Mariners. Current Notices are available from DoT chart sales offices, approved chart agents and at https://www.transport.wa.gov.au/imarine/nautical-charts.asp.

Navigable Waters Regulations
Changes to Navigable Waters Regulations are published in the Western Australian Government Gazette. Regulations for Navigable Waters can also be found at https://www.legislation.wa.gov.au.

Marine Protected Areas
Refer to Deparment of Primary Industries and Regional Development (DPIRD) and Department of Biodiversity, Conservation and Attractions (DBCA) publications for the latest information.

CAUTION NOTES
1. Submarine Cables - A number of disused submarine cables continue in a north-westerly direction and present a possible hazard to the anchoring of vessels.
2. Some channel navigation aids have been omitted. Refer to large scale chart.
3. During moderate swell seas may break over depths of about 6 metres.
4. Aquaculture - Mariners are advised that floating and submerged hazards exist in this area. Special Marks identify areas of operation.
5. Obstruction of Channels and Leading Lines; Craypots -The setting of craypots and other fishing gear on leading lines, adjacent to navigation marks, in navigation channels, and boat harbours poses a very real danger to safe navigation. Offences may result in removal of equipment and prosecution.
6. Obstruction at 32°09'13.00"S 115°40'42.00"E is a protected heritage site. All vessels are to remain outside the area. Possible penalties apply for any interference to features above and below sea level.
7. Unexploded Ordnance area with radius 463m centred on 31°58.25'S 115°32.10'E is safe for surface navigation only. It is not safe for anchoring, trawling or seabed activities.
8. Parmelia and Success Banks are subject to seasonal shoaling, mariners are advised to navigate with caution.

TIDAL INFORMATION AND SOUNDING DATUM

Place	Lat °S	Long °E	Heights in metres above datum						Sounding and Tidal Datum
			HAT	MHHW	MLHW	MSL	MHLW	MLLW	LAT	
FREMANTLE	32°03'	115°44'	1.36	0.98	0.80	0.76	0.67	0.55	0.21	3.320m below NMV/F/6A
ROTTNEST	32°00'	115°34'	1.42	0.91	0.66	0.68	0.54	0.44	0.22	2.842m below BM PWD A283

LOGARITHMIC NOMOGRAM SPEED - DISTANCE - TIME

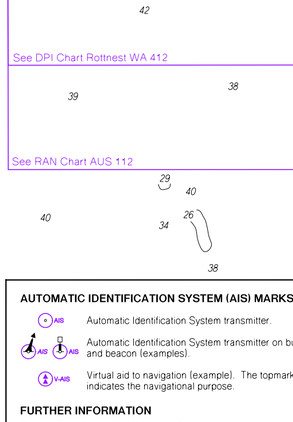
To find Speed, Distance or Time Interval, draw a line through any two factors, then interpolate for the unknown factor. eg. A distance of 10 nautical miles in 120 minutes means a speed of 5 knots.

SPEED (Knots): 1.0 1.5 2 3 4 5 6 7 8 9 10 15 20 30
DISTANCE (Nautical Miles): 0.1 0.2 0.4 0.6 1.0 2 4 6 8 10 15 20 30 40 50
TIME INTERVAL (Minutes): 6 10 15 20 30 40 50 60 90 120 180 (Example)

AUTOMATIC IDENTIFICATION SYSTEM (AIS) MARKS
- AIS — Automatic Identification System transmitter.
- AIS / AIS — Automatic Identification System transmitter on buoy and beacon (examples).
- V-AIS — Virtual aid to navigation (example). The topmark indicates the navigational purpose.

FURTHER INFORMATION
Refer to the Australian Maritime Safety Authority website http://www.amsa.gov.au/navigation/services/ais/

RELIABILITY DIAGRAM

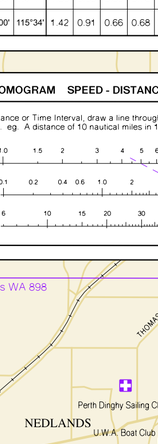


KEY TO SYMBOLS
- 400 Distance apart of sounding lines (metres)
- L Lead Line depths
- E Echo Sounder depths
- O Optical position fixing
- Z Electronic position fixing
- S Sonar swept

Authorities:
- A Department for Planning and Infrastructure
- B Royal Australian Navy

CAUTION
Overhead powerlines exist at various locations over waterways on this chart.

LEGEND



- Marsh and swampland
- Nature Reserve / National Park
- Railway, Clearance height, Bridge
- Clearance height, Overhead powerline
- River
- Major road
- Minor road
- Track
- Medical facility, Building
- Mean high water
- Mean low water
- Datum mark
- Cliff
- Rock shoreline
- Sand drift, Anchoring prohibited
- GPS validation point, Helipad, Groyne
- Car parking, Over-beach launching
- Boat ramp, Tide rips
- Parking for boats / trailers
- Mangroves, Foul ground, Marine farm
- Water, Fuel, Jetty, Safe anchorage
- Telephone, Public toilet
- Exposed wreck, Submerged wreck
- Hazardous submerged reef
- Reef which covers and uncovers
- Coral reef / outcrop, Breakers
- Rock awash, Underwater rock
- Sounding above Datum, Fish haven
- Danger line
- 2m contour
- 5m contour
- 10m contour
- Depth in metres and decimetres
- Approximate contour
- Submarine cable
- Anchorage area, No anchorage area
- No fishing, Pilot boarding location
- Speed limit boundary
- Water skiing boundary
- Prohibited area boundary
- Various limits
- Port Authority / Harbour boundary
- Recommended track
- Outfall
- Dredged area boundary
- Restricted area / Sensitive area
- Marine protected area

NAVIGATION MARKS
- Lighthouse, major, minor light
- Beacon, port, starboard
- Safe water, isolated danger
- Spar buoy, port, starboard
- Pillar buoy, port, starboard
- Mooring buoy, yachting buoy
- Lead, front, rear
- Special Marks (yellow cross topmark) are not primarily to assist in navigation, but indicate special features.

CARDINAL MARKS
- North — Indicates safe water to the North
- South — Indicates safe water to the South
- East — Indicates safe water to the East
- West — Indicates safe water to the West

LIGHT CHARACTERISTICS
Colour of light is white unless otherwise stated

F : Fixed
Fl : Flashing
Fl( ) : Group-flash
Q : Quick-flash
LFl : Long-flash
Oc : Occulting
Iso : Isophase
indicates lit navigation mark
G : Green R : Red W : White
Y : Yellow Bu : Blue
s : Period in seconds
m : Focal plane height above MHHW
M : Luminous range in nautical miles

NATIONAL PARKS AND NATURE RESERVES
National Parks and Nature Reserves are gazetted for the Protection of Flora, Fauna and Landscape values. Dumping of rubbish, lighting of fires (including ground fires), firearms, pets, removal of rocks, soil and timber, driving off established tracks and disturbance of flora and fauna are all prohibited in National Parks and Nature Reserves. Camping is only allowed in gazetted areas of National Parks. Refer to Department of Biodiversity, Conservation and Attractions publications for further information on parks and reserves.

LEEUWIN CURRENT
The Leeuwin Current is most predominant during May to August with a surface current generally less than 1.0knot. It has an average width of 30 nautical miles and extends to a depth of approximately 200 metres, carrying warm, low salinity water from the North West Shelf area along the continental shelf south to Cape Leeuwin and then east into the Great Australian Bight. For details of currents generally refer to R.A.N. Australia Pilot Vol V.

WESTERN ROCK LOBSTER FISHERY
Between November and June, extensive lobster fishing takes place between latitude 24°S and 34°S. Mariners are advised to keep well clear of lobster pot floats and submerged lines.

FISHING
Fishing regulations apply throughout Western Australia. Refer to Department of Primary Industries and Regional Development publications for further information.

ROADS AND TRACKS
The representation on this chart of any road or track is not necessarily evidence of a Public Right of Way.

HISTORIC SHIPWRECKS
All wrecks, 75 years old or more, are protected under an Act which prohibits the removal of artefacts or wilful damage of any sort. By this means, the sites will remain better preserved for divers in the future. Refer to WA Maritime Museum for further information.

Notices to Mariners inclusive 1- 96 July 2024

Government of Western Australia
Department of Transport

Produced by Cartographic Services, Transport, Western Australia.

January 2010, Edition 16.

DEPTHS IN METRES

OCEAN REEF TO CAPE PERON WA 001

DEPTHS IN METRES

SEE RELATED PUBLICATIONS: Notice to Mariners (https://www.transport.wa.gov.au/imarine/nautical-charts.asp), Symbols, Abbreviations and Terms (INT 1), Tide Tables, Sailing Directions. For surveys beyond this chart refer to RAN Charts AUS 754 and AUS 334.

WEATHER BRIEF
Set out below are some statements which may help users of this chart to understand and anticipate the more severe weather conditions which affect the area.

SUMMER
A light southerly wind early in the morning after a period of hot weather is often followed by a fresh or strong SW or S wind which may persist well into the night. Fresh SE winds are normally associated with rising pressures and change quickly to directions between S and SW when the sea breeze develops. Easterly winds which are fresh or strong overnight usually moderate in the late morning and afternoon but may freshen quickly again in the evening. Rapidly falling pressures sometimes occur in the low pressure trough along the West Coast and may quickly produce fresh or strong NE/N winds during the morning. These winds usually change to the NW or W after several hours and moderate. Convective cloud which is causing showers can also produce squalls all year round, particularly near thunderstorms. A decaying tropical cyclone accompanied by strong winds can reach this area from the vicinity of North-West Cape in 24-36 hours. These occurrences are infrequent but most likely in March.

WINTER
Steadily falling pressures usually indicate the approach of a cold front. The resulting winds normally strengthen from the NE or N at first, moderate as they back to the NW and then freshen ahead of the front. When the depression associated with a front is well to the south, winds will usually change quickly to the SW after passage of the front. If strong or gale force NW winds precede a front they will usually be westerly immediately after its passage and later change to the SW. Steady or falling pressures in the 6-12 hours after the passage of a front usually indicate the approach of another front or depression. When the pressure continues to fall below 1014 mb in the mid-winter months there is a high probability that a strong cold front will arrive in the following 24 hours. Thunderstorms and squalls may occur during the passage of a cold front and also in the cold air from the SW or S following the front. Middle or high cloud from the NW which is increasing in speed may indicate the imminent arrival of a cold front. Fast moving low cloud from any direction may, if viewed from a sheltered location, indicate stronger winds over exposed waters.

RADIO WEATHER SERVICE (For local waters)
Weather is available via facsimile, telephone (including mobile), Internet, Seaphone and INMARSAT. Although some Perth commercial and National radio stations broadcast warnings and marine weather forecasts, primary access of information should be via one of the following:
Facsimile : simply set your machine in poll receive mode and dial 1902 935 290 and you will receive a copy of the current products directory.
Telephone : for Perth local water warnings call 1900 955 350 and for Western Australian general warnings call 1900 955 371.
Internet : go to the Bureau of Meteorology web site at http://www.bom.gov.au/weather/wa and follow the links to information required.
Coastal weather forecasts are prepared by the Bureau of Meteorology and broadcast as follows: From VMW Weather Australia West at Wiluna on 2056, 4149, 6230, 8113, 12362 and 16528 kHz on a 24 hour, 7 day week basis. VHF Channels 16 and 67 at 0718 and 1918 hours W.S.T by the WA Water Police.

LEEUWIN CURRENT
The Leeuwin Current is most predominant during May - August with a surface current generally less than 1.0kn. It has an average width of 30 nautical miles and extends to a depth of approximately 200 metres, carrying warm, low salinity water from the North West Shelf area along the continental shelf south to Cape Leeuwin and then east into the Great Australian Bight. For details of currents generally refer to R.A.N. Australia Pilot Vol V.

EPIRBs (Emergency Position Indicating Radio Beacon) 406MHz
All recreational vessels operating more than 2 nautical miles from the mainland shore or more than 400 metres from an island located more than 2 nautical miles from shore are required by law to carry an EPIRB 406.

If an EPIRB 406 is activated by accident, contact the Rescue co-ordination Centre in Canberra on (02) 6230 6811 (24 hours) or Freecall 1800 641 792 or Water Police Base on (08) 9442 8600 or the nearest marine radio station as soon as possible.

IMPORTANT POINTS ABOUT EPIRBs
Ensure your EPIRB 406 container is not cracked or showing signs of damage and batteries are within shelf life. Use the test switch at least once a month to verify power. Keep it accessible, in the cockpit or less than an arms length away in the companionway and ensure that it cannot be accidentally activated by movement.

NAVIGATION LIGHTS
All vessels under way or at anchor must display an unobscured 360° white light between the hours of sunset and sunrise.

DIVER'S FLAG
750
600
Dimensions in mm

Vessels engaged in diving operations shall exhibit at all times, the International Code flag "A". All other craft are to keep at least 50 metres clear.
Divers engaged in operations may display the International Code flag "A" from a personal buoy. During night time a boat must show the International lights that "a vessel is restricted in her ability to manoeuvre". These are three lights in a verticle line, the top and bottom are red with the middle being white. If diving at night without a vessel you are required to display a flashing orange light that can be seen from a minimum distance of 200m.

BASIC RULES OF THE WATERWAYS

POWER MEETS POWER

1. When two power boats are approaching head on, or nearly head on, each must alter course to starboard and pass on each other's port side.
2. When a vessel is crossing your bow from starboard to port, that vessel has right of way and you should keep clear. Stop or reduce speed and pass under his stern. (Give way to the vessel on your right.)
3. When overtaking another vessel, the vessel being passed has right of way and you must always keep clear of that vessel.
4. When a vessel is crossing your bow from port to starboard you should maintain course and speed as you have the right of way. If the other vessel does not give way, you should take all action to avoid a collision.
5. When in a narrow channel keep to starboard.
6. It is an offence for any vessel to be moored or anchored in any channel or fairway, unless that vessel is in distress. Large and deep draughted vessels have restricted manoeuvrability. Small craft must keep well clear of these vessels at all times and must not hamper the larger vessel's progress.

SAIL MEETS SAIL

("C" HAS WIND ON STARBOARD SIDE)
"A" AND "B" GIVE WAY TO "C"
"B" GIVES WAY TO "A"
("B" IS UPWIND OF "A")

POWER MEETS SAIL

7. Generally power gives way to sail unless the sailing vessel is overtaking.
HOWEVER
Sailing craft may not demand that deep draught vessels, such as ferries and vessels over 20 metres, leave a marked channel to avoid them.

LATERAL MARKS
There are two types of Lateral marks or Channel marks, the PORT hand mark and the STARBOARD hand mark. These marks indicate the port and starboard sides of a navigable channel and also guide you in the buoyage direction. A port hand mark must be passed on your port hand side when travelling in the buoyage direction (into harbour and/or upstream).

When fitted, the light shown may have any rhythm.

Port Hand Mark - red can topmark and red light if fitted.

Starboard Hand Mark - green or black cone topmark (point up) and green light if fitted.

NAVIGATION MARKS
- Lighthouse, major, minor light
- Beacon, port, starboard
- Safe water, isolated danger
- Spar buoy, port, starboard
- Pillar buoy, port, starboard
- Mooring buoy, yachting buoy
- Lead, front, rear
- Special Marks (yellow cross topmark) are not primarily to assist in navigation, but indicate special features.

CARDINAL MARKS
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- East: Indicates safe water to the East
- West: Indicates safe water to the West

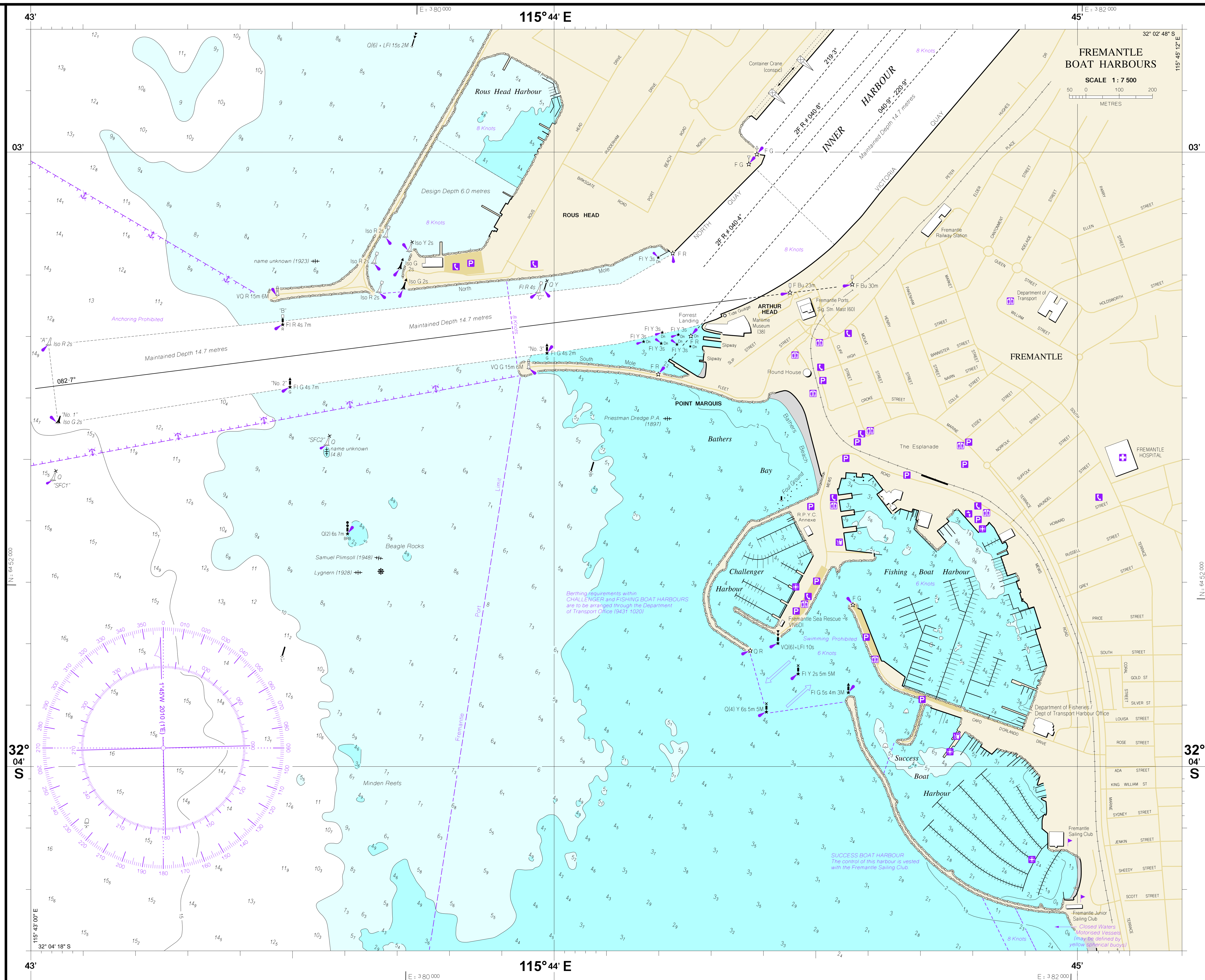
LIGHT CHARACTERISTICS
Colour of light is white unless otherwise stated

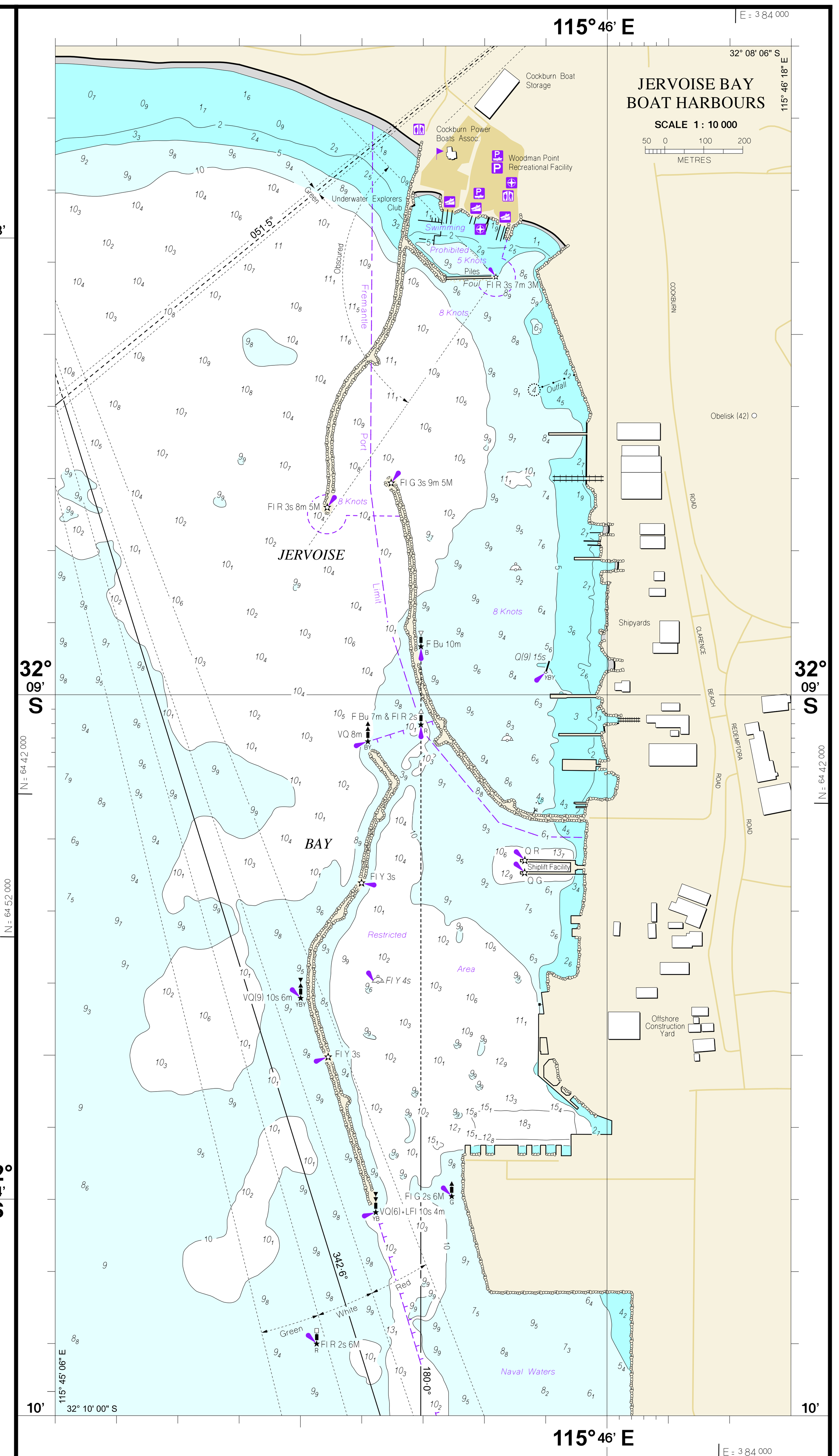
F	Fixed		indicates lit navigation mark
Fl	Flashing	G : Green	R : Red / W : White
Fl( )	Group-flash	Y : Yellow	Bu : Blue
Q	Quick-flash	s	Period in seconds
LFl	Long-flash	m	Focal plane height above MHHW
Oc	Occulting	M	Luminous range in nautical miles
Iso	Isophase		

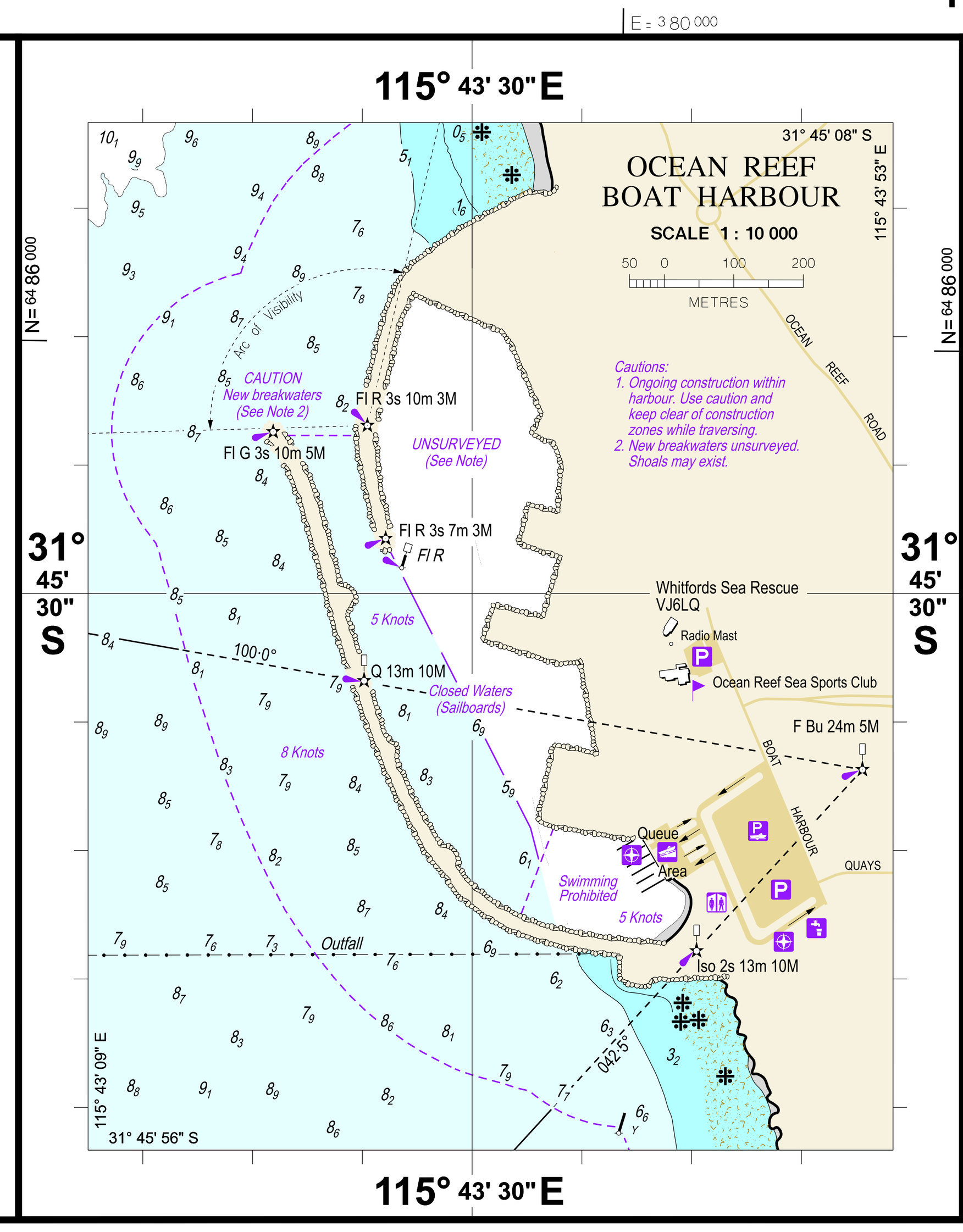
CARDINAL MARKS
Cardinal Marks indicate the extremities of a large danger. There are four marks, North, East, South and West. Each mark indicates the safe side to pass. Eg; you should pass to the West of the West Cardinal Mark. When fitted, a white light based on a group of quick or very quick flashes identifies the mark as follows:

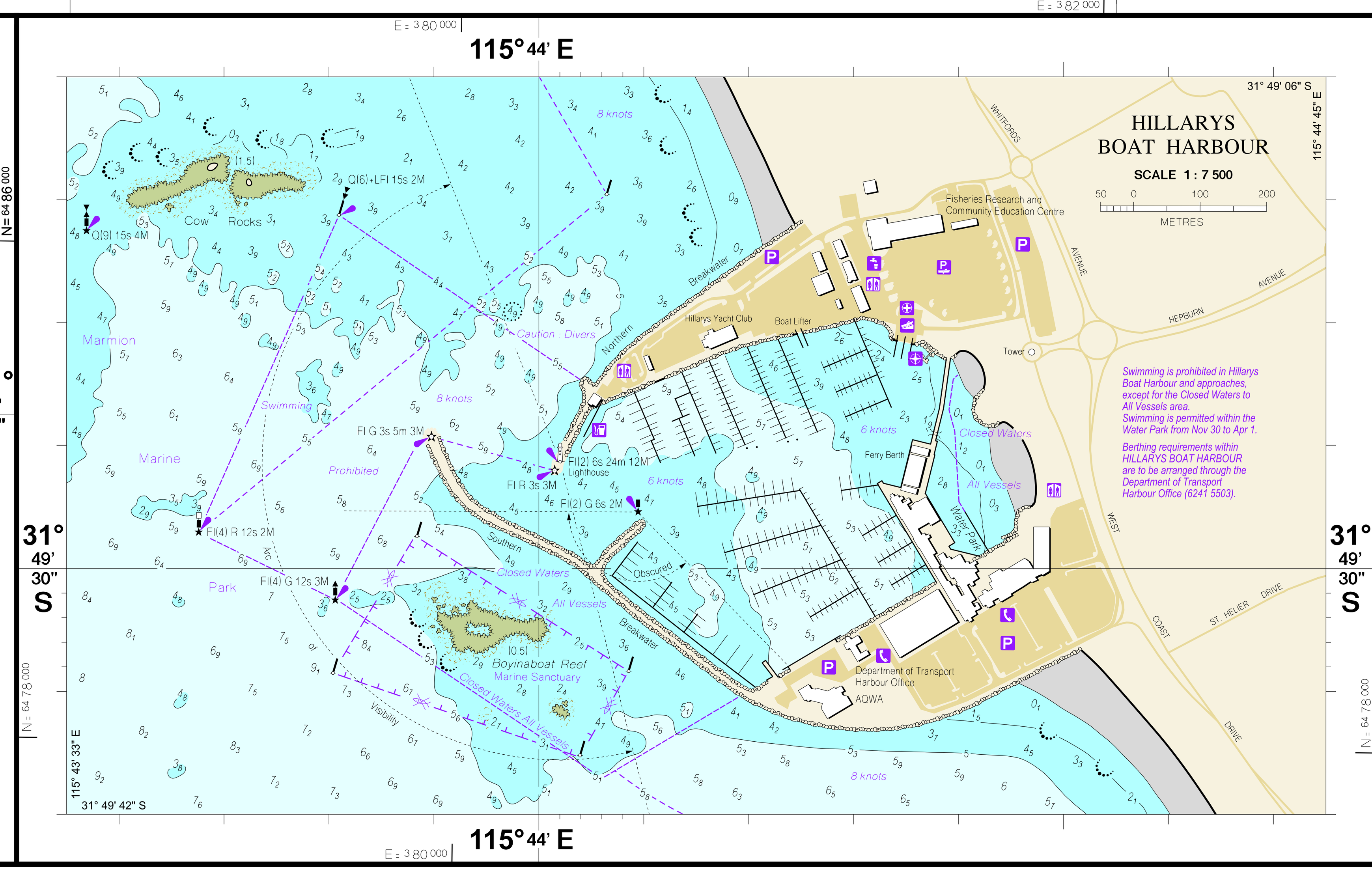
North	uninterrupted sequence
East	three flashes in a group
South	six flashes followed by a long flash
West	nine flashes in a group

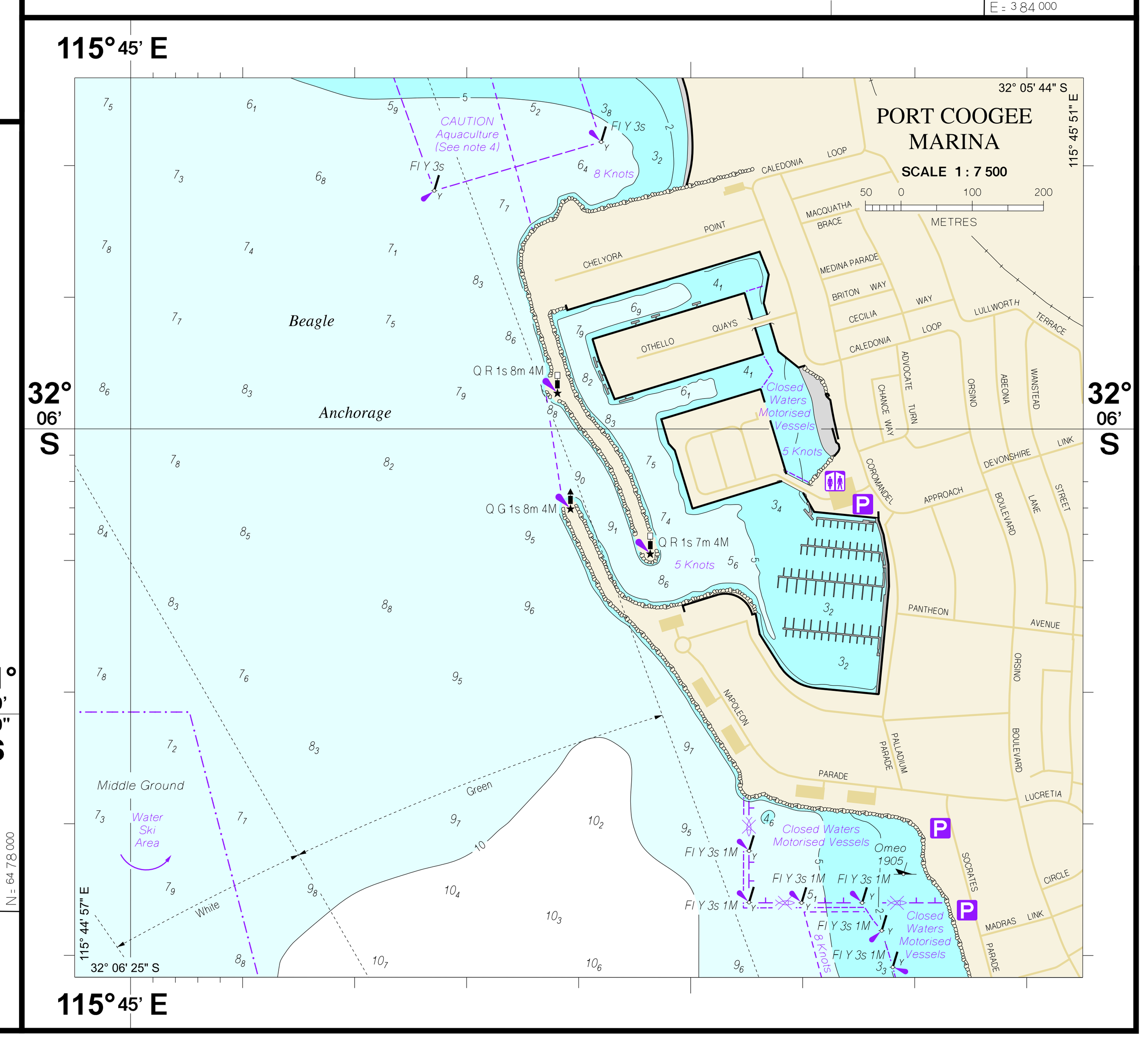
NW, North Mark, NE, West Mark, Position of Hazard, East Mark, SW, South Mark, SE











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