

A simple rule of thumb for a small powerboat is to stay clear of any boats exhibiting additional lights.

### Navigation at night

The waterways are not like well-defined roads. It is unsafe to navigate a boat with lights illuminating the water directly ahead because it will deprive you and other boat operators of night vision.

Spotlights can be used to identify specific hazards, but this should be done only when operating at very slow speed and without affecting other waterway users.

The most important rules to remember when driving a boat at night are to slow down and keep a good lookout. The speed of travel should be much less than that travelled by day.

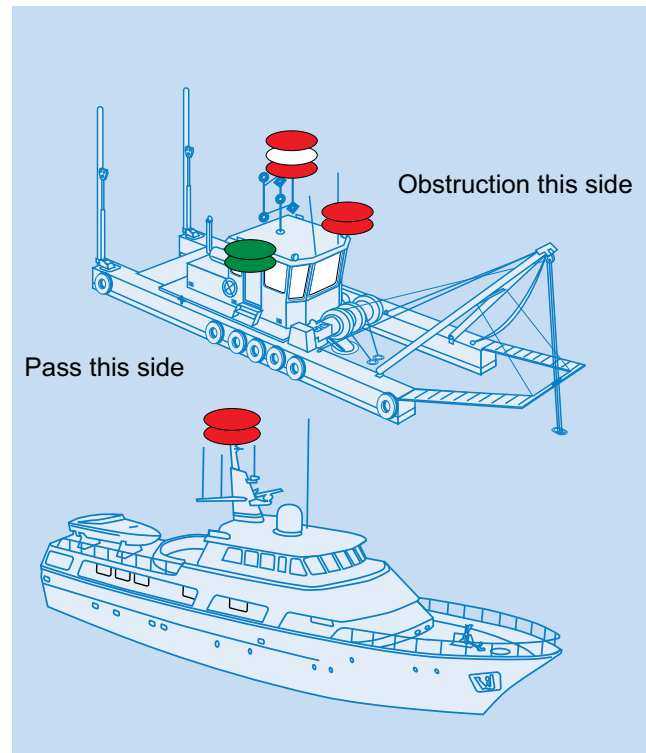
Remember:

- Not all navigation hazards have lights indicating their position (examples are shallow banks, oyster leases, and many navigation markers).
- It is difficult to judge distances at night.
- Background lighting on the shore can cause confusion.
- All boats are required to show some form of lighting.
- A safe speed is a speed at which sufficient action can be taken in time to prevent a collision.
- Keep an extra good lookout.

### Boats with limited manoeuvrability

Many work boats operate in Queensland waterways. The nature of the activities undertaken by these craft means that they are often stationary and not always noticed by

passing vessel traffic. The effects of wash on a stationary workboat can pose a considerable risk, as crew are often moving between the vessel and a fixed structure, for example, a marine aid to navigation. To protect vessels and their crew, internationally recognised marine






## MAGNUM TOP GEAR MARINE

Manufacturers and suppliers of:

- Gel coat treatment and maintenance kits.
- Gel coat buffing and polish products.
- Fast cut gel coat refinishing products.
- Teak deck cleaners, brighteners, sealers.
- Boat wash / shampoo cleaners.
- Engine and bilge cleaners.
- Interior cabin cleaning products.
- Glass / perspex, clears and bimini cleaners.
- Stainless steel polish.
- Easy to apply surface protection glaze.
- Accessories.



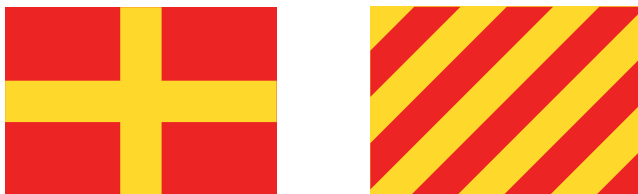
For more information, or to contact your local agent please visit our web site

www.topgear.net.au

signals are displayed. When a vessel displaying any of these signals is sighted, other traffic should stay clear and preferably slow down, to minimise wash.

Vessel situation	Day shapes	'Signature lights'
Restricted in ability to manoeuvre		
Not under command		

A vessel displaying the combination of flags shown, either separately or in conjunction with one of the above signals, is requesting that passing boats slow down.



### IALA buoyage system

A system of buoys, spars and lights, known as IALA Buoyage System 'A' is used to assist safe navigation. These are the equivalent of road signs on highways. Study a chart, as well as the buoys themselves, to familiarise yourself with their meanings. Each type of mark has a unique combination of colour, shape, topmark and light.

You must be able to recognise these and pass them safely on the correct side.

#### Lateral marks

Port and starboard marks are referred to as lateral marks. They indicate the port-hand and starboard-hand sides of navigable waters (channels).

When both a port and starboard mark are placed near to each other, travel directly between them. Often lateral marks are not placed in pairs where the safe side to pass is generally determined by the direction of travel to or from the sea, or a predetermined local direction of buoyage.

#### When going upstream (away from the sea)

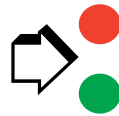
- Keep red (port-hand marks) on the left-hand side (to port)
- Keep green (starboard-hand marks) on the right-hand side (to starboard)

#### When going downstream (towards the sea)

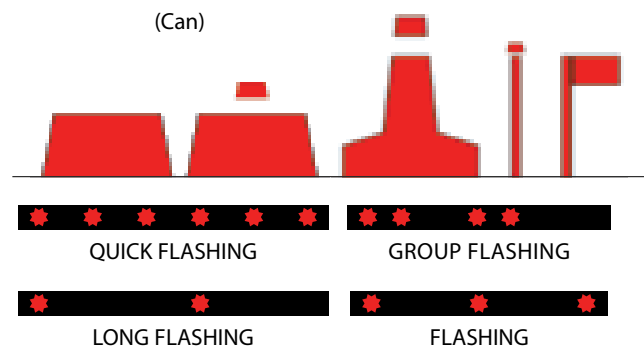
- Keep red (port-hand marks) on your right-hand side (to starboard)
- Keep green (starboard-hand marks) on your left-hand side (to port)

#### Local direction of buoyage

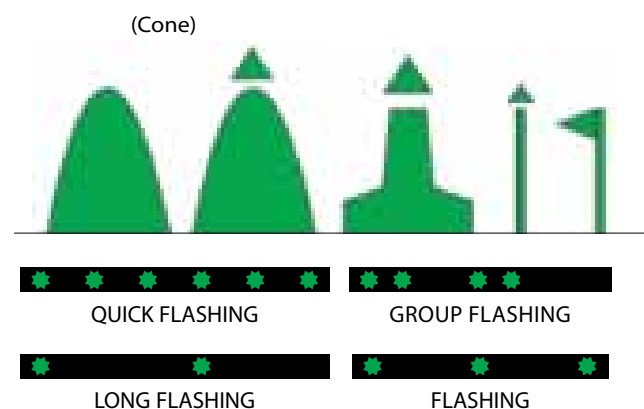
Where there is doubt, the direction of buoyage is indicated on charts by the symbol:



### PORT



### STARBOARD



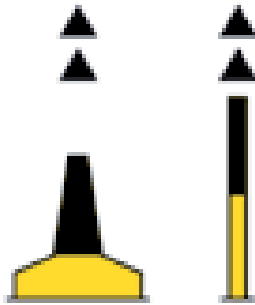
## Cardinal marks

A cardinal mark indicates where the deepest and safest water can be found. That is, where the mariner has safe passage. It may also indicate the safe side on which to pass a danger and to draw attention to a feature in the channel such as a bend or junction.

### NORTH

Safe water to the  
North of the cardinal

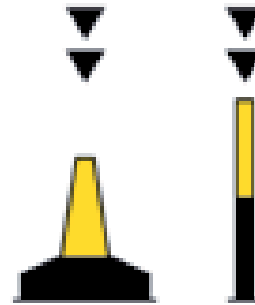
Top marks point 'up' toward the NORTH for safest water. At night the frequency of the flashes are an uninterrupted quick flash.



### SOUTH

Safe water to the  
South of the cardinal

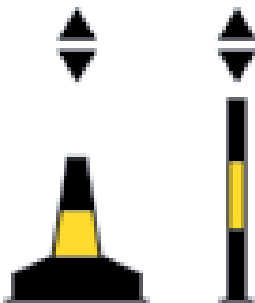
Topmarks both point 'down' towards the SOUTH for safe water. The frequency of flashes is 6 quick flashes in a group followed by a long flash.



### EAST

Safe water to the  
East of the cardinal

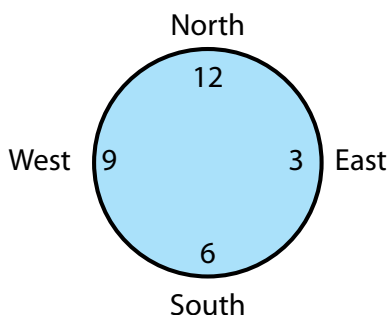
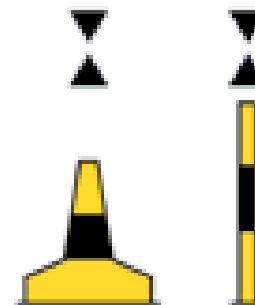
The topmarks are in the shape of an egg, so remember the e of egg is for safe water to the EAST. The frequency of the flashes is 3 quick flashes in a group.



### WEST

Safe water to the  
West of the cardinal

The topmarks make the shape of a wine glass so remember the w of wine glass is for safe water to the WEST. The frequency of the flashes is 9 quick flashes in a group.



To remember the light flash rates for cardinal marks, the number of flashes for east, south and west agrees with a clock face.

A north mark has a continuous flashing light.

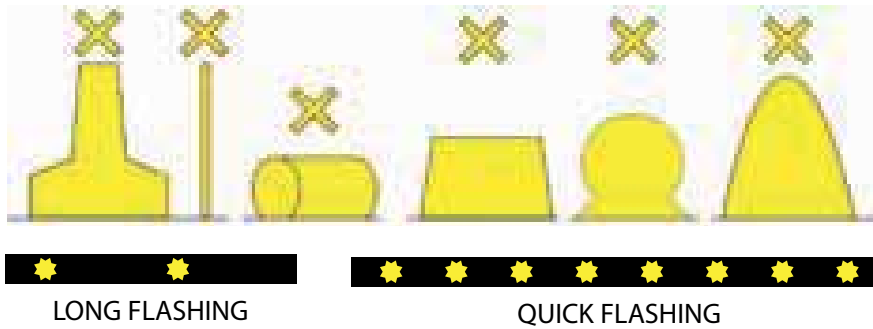
**Special marks**

Special marks can be used to mark a specific structure or feature such as a cable or pipeline, or to indicate that a channel divides. The direction to navigate around a special mark is often obvious by using a chart.

At night the light is yellow and the rhythm may be

any other than those used for the white lights of a cardinal, isolated danger and safe water marks.

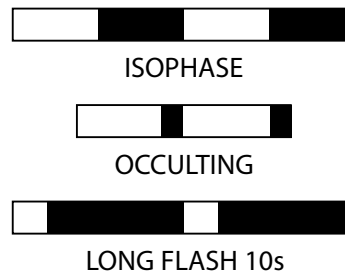
Variations in the design of buoys will exist in many areas. Illustrations indicate the approved shapes, colouring and topmarks.



**Safe water marks**

Indicates that there is navigable water all around the mark – for example, mid channel.

At night a white light shows a single long flash every 10 seconds. To remember this, associate a single sphere with a single flash.



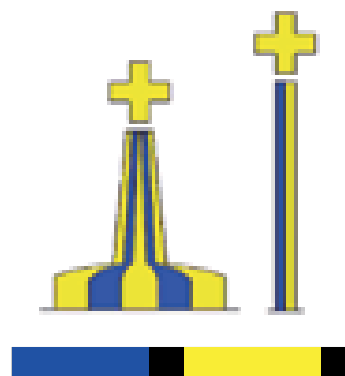
**Isolated danger marks**

Indicates there is an isolated danger with navigable water all around it – for example, an isolated shoal, rock or wreck.

At night a white flashing light shows groups of two flashes. The best way to remember this is to associate two flashes with two spheres as the topmarks.

**Emergency wreck marking buoy**

The emergency wreck marking buoy is designed to provide high visual and radio aid to navigation recognition.





## Shipping channels

### Interaction between ships and small craft

A combination of increased shipping movements and record numbers of recreational boats throughout Queensland is creating more congestion in and adjacent to shipping channels, raising the potential for interaction between ships and smaller vessels.

Recreational boats and commercial vessels operating and fishing in shipping channels place themselves in a high risk situation, particularly those who do not have or use a VHF radio to communicate with large ships and monitor local shipping movements.

Large ships often travel at speeds in excess of 20 knots and fully laden cargo ships or tankers can have a stopping distance equal to 28 football fields (2.5 nautical miles). When travelling in narrower channels, such as entering a port, a ship can have as little as 600mm under-keel clearance, and can neither turn nor slow-down.



A small boat within several hundred metres of a ship can be unseen from the helm of a ship, with the bow of the ship and sometimes cargo such as containers obscuring the view. This 'blind spot' (see above) can sometimes extend for several nautical miles, and smaller boats rarely appear on ship radar.

It only takes about 15 minutes from the time a ship is spotted on the horizon by a small boat to the potential time of impact. In the event of engine failure on a small boat this interval can prove fatally short.

### What precautions should recreational boaties take to increase safety?

- Whenever travelling across or alongside a shipping channel keep a constant lookout. From water level, large ships travel quietly.
- When near a shipping channel monitor the appropriate VHF channel for the area (for example channel 12 in Moreton Bay). Relying on a mobile phone for communications can be disastrous – the ship's captain or pilot won't know your number, and you don't know theirs!
- Cross a shipping channel at 90 degrees behind a ship, and never cross in front – small boats breaking down or running out of fuel has occurred with disastrous results.
- Avoid travelling within and along a designated shipping channel.
- Despite the fact that they attract fish, avoid anchoring near or fishing in the channels next to a navigation aid (buoy or channel marker) which marks a designated shipping lane. It is a common occurrence for small craft to drift unaware into the shipping channel while a ship is approaching.

## Navigating with a Global Positioning System (GPS)

Global Positioning Systems (GPS) are commonly found on recreational boats, and while a good navigation aid, they should not be relied upon (like any other electronic equipment dependent on battery power). A GPS is able to provide a latitude and longitude, updated almost continuously. This can then be plotted on a chart and should be verified with a compass.

There have been a number of navigational incidents, where boats have run aground and into obstructions, attributed to people using GPS data alone. Some positions given by GPS will need to be adjusted due to differing datum (see cautionary advice on charts). As with all fixes, the GPS position should be checked against something else.

A GPS is not a substitute for sound watchkeeping and navigational practices and should be used only in conjunction with other aids to navigation.

Consider the following when using GPS and/or chart plotters:

- Masters should still maintain a proper lookout while the vessel is underway to identify any approaching hazards.
- Zoom to the largest available accurate chart scale. If the zoom recommended exceeds the accuracy scale limit then a warning message is displayed on the screen.
- It is advisable to switch the unit on and select

the correct chart datum before departing. GPS units require time to initialise, and the master needs time to assess the accuracy of the position information prior to starting the voyage.

- The accuracy of GPS units can be compromised by power failures or poor electrical connections.
- Always ensure your electrical charts are updated with supplier upgrades.
- When going to a waypoint in a straight line, check what is in between your boat's initial location and the waypoint.
- Be aware of areas under construction or development as hazards may change regularly. A good way of maintaining safety information is through Notices to Mariners, which can be found on the Maritime Safety Queensland website.

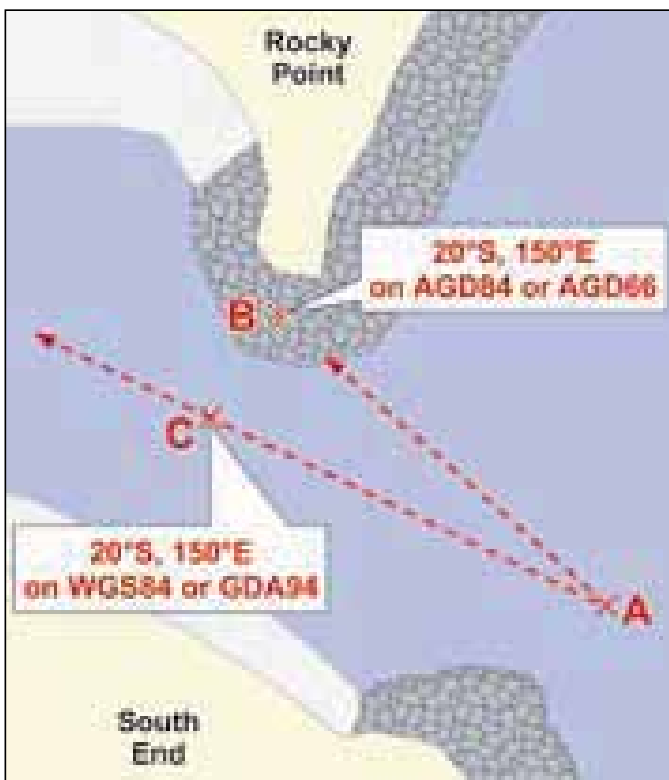
Before using your new GPS, you are obligated to familiarise yourself with the strengths and weaknesses of the equipment. As a starting point, it is recommended that GPS users undertake navigation and GPS courses offered by Volunteer Marine Rescue, Australian Volunteer Coast Guard and registered training organisations.

### GPS verification marks

GPS verification marks are signs installed at selected boat ramps to be used by boaters to check the accuracy of onboard GPS navigation equipment.

The signs display verified GPS coordinates and are currently being installed at boat ramps across Queensland. The signs have been installed in locations that are easy to access either on water or on land (for example, in rigging areas). When completed, the project will involve over 50 boat ramps between Southport and Port Douglas with approximately 100 signs being installed across the locations.

Visit the Maritime Safety Queensland website to for updated information on where signs have already been installed.



# Water sports

Queensland's waterways are shared by all types of boats used for water sports. Non-motorised craft such as sail boats, windsurfers, canoes, kayaks, surfskis and kitesurfs are classified as boats and must follow marine safety rules and regulations.

## Water skiing

Water skiing involves towing people behind a boat on skis, bare feet, inflatable toys, boards and parasailing. All kinds of boats are used for water skiing, mainly dinghies, skiboats and personal watercraft (PWC). If using a PWC to tow a skier you must obey PWC rules. However, you may be exempt from certain PWC distance rules when skiing, such as 60 metre from shore six knot rule. Go to Maritime Safety Queensland's website for more information.

The owner/driver of the boat is responsible for the safety of others and has a general safety obligation to:

- make sure the boat is safe and is capable of towing skiers
- take all the right safety equipment for the skiers and passengers
- operate the boat as safely as possible and check the area is safe for skiing by noting the depth of water, width to make turns safely and any hazards.

### Personal flotation devices for skiers

When water skiing, the skier must wear a PFD at all times:

- PFD type 2, 3 or a wetsuit with inbuilt flotation approved as a PFD type 3 in smooth water limits.
- PFD type 2 in partially smooth water limits. It is compulsory for all children under 12 years, in open boats under 4.8 metres whilst underway, to wear an appropriately fitted life jacket at all times. (See safety equipment table on page 28 for more details).

### Water ski areas

Water skiing is prohibited:

- in certain areas usually designated by signs
- in all six knot zones including harbours and marinas
- within 30 metres of people in the water, anchored boats, diver's flags, jetties, pontoons or boat ramps
- within 60 metres of people in the water if operating a PWC.

Water skiing is permitted in all other areas. However, it is the responsibility of the driver to ensure the area is safe and suitable for skiing.

The Gold and Sunshine Coasts have some designated water ski areas and times for operation. These are clearly marked by signs.

Restricted areas are outlined in the Waterways section of the Maritime Safety Queensland website at [www.msq.qld.gov.au](http://www.msq.qld.gov.au).

### Observers

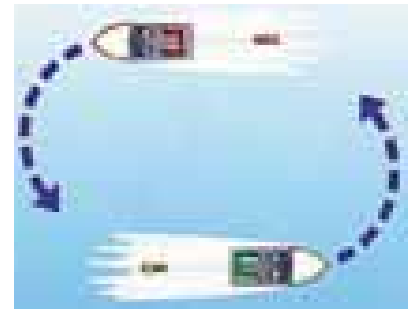
A person must not operate a boat (including a PWC) towing a skier unless the skier is wearing a PFD type 2 or 3 and there is another person (an observer) on board. The observer must be older than 12 years and competent to watch the skier at all times.

They must immediately tell the operator if:

- there is a danger, or potential danger, to the skier
- the skier signals the observer
- the skier has a fall or mishap.

### Direction of travel

When skiing in lakes, rivers and creeks, boats should travel in an anticlockwise pattern (see right). In a few locations local customs and conditions may dictate the direction of travel.



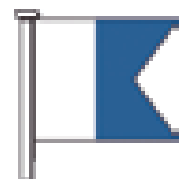
Always check before skiing.

### Skiiing or towing on a personal watercraft

When towing a skier on a jet ski you must obey personal watercraft rules. The operator of the PWC must ensure there is an observer on board, and that there is sufficient seating capacity for both the operator and the observer. For information on personal watercraft and their operation see page 32 or go to the Maritime Safety Queensland website.

### Divers' flags

Divers can surface at any time, sometimes a significant distance from where they enter the water. In the interest of diver safety, any boat is excluded from operating within 30 metres of a diver in the water if a Code A flag is displayed (see above). It is legal for the boat tending the diver to operate within the 30 metres. Breach of this regulation can incur a penalty.



**Water skiing safety tips**

- The tip of the ski must always be showing before the boat starts.
- After a fall, a skier should always clasp hands over head if unhurt until seen by the observer and boat driver.
- No signal from a fallen skier calls for immediate action by the observer and driver.
- A fallen skier getting into a boat should leave their skis in the water and swim towards the

boat.

- The driver should always stop the engine(s) before picking up the skiers in the water.
- Skiers should enter a boat over the stern whenever possible.

**Recognised water ski signals**

The following signals are suggestions only. The observer and skiers should agree to the signals beforehand.



**Start:** Nod the head.



**Faster:** Open palm facing up – motion upwards or nod head if both hands in use.



**Slower:** Open palm facing down – motion downwards or shake head if both hands are in use.



**Speed required:** Use the number of fingers for km required. For example, 23 – first two fingers then three fingers.



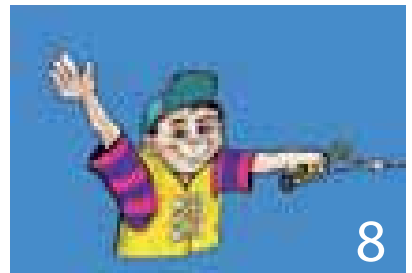
**Speed OK:** Arm upraised with thumb and forefinger making an 'O' – OK signal.



**Turns:** Palm vertical, curving motion of hand in direction required.



**Whip off:** Point to direction and then give quick circular motions with hand.



**Stop:** Hand up with fingers outstretched.



**Back to dock:** Point with downward swing of the arm.



**Cut motor:** Finger drawn across throat in cutting motion.



**OK after fall:** Skier should clasp hands over head if unhurt, until seen by the boat driver.

## Sail boats and sail boards

Sail boats and boards are propelled by the wind, requiring special skills to control direction and speed. When learning to sail, choose a quiet area away from anchored boats and activity. To practice, it is essential to wear protective clothing and for safety an appropriate PFD. Like all other boat users, sailors have a responsibility to take all action to avoid a collision and should follow the rules.



## Rowing

Rowing is popular on Queensland waterways. Like canoes and kayaks, rowing boats are difficult to see and can be swamped easily. As a general rule, keep the starboard side close to the shore of busy rivers. An all-round white flashing light is highly recommended between sunset and sunrise.

**All boats engaged in training or competition rowing activities on the Brisbane River must be fitted with an all-round white flashing light if they are on the water before sunrise or after sunset.**

## Canoes, kayaks and surf skis

Canoes and kayaks create little or no noise and have a small profile on the water, often making them difficult to see, and they often appear stationary. It is essential to be seen all the time as speedboats and larger boats can create wash capable of capsizing the boat. Travel close to banks to avoid high traffic areas. Where possible travel in a group, keep the group together and adopt a one/all stop attitude. PFDs are recommended.

## Kitesurfing

Kitesurfing involves a surfboard with 30 metres of line attached to a kite. The kite acts as a sail and propels the rider through the water. The kites have air pockets built in, so they don't sink when landing.

Kitesurfs work best in windy conditions and reach speeds up to 30 knots. Sailing rules apply to kitesurfers and other boats should give them a wide berth. If a kitesurfer drops the kite, other boats should travel upwind of the surfer and the kite to avoid becoming tangled in the line.

Kitesurfers should steer clear of powerlines, trees and navigation beacons and should stay at least 30 metres from swimmers and boats. Kitesurfing is a highly skilled watersport and training is highly recommended. For more information log onto [www.kitesurf.com.au](http://www.kitesurf.com.au).



## Marine radio

### Licences and certificates

Under federal regulations, operators of VHF and MF/HF radios are required to hold an operating certificate. The operating certificates are a Marine Radio Operator's VHF Certificate of Proficiency (for VHF radio operations) — MROVCP or Marine Radio Operator's Certificate of Proficiency (for VHF and MF/HF) — MROCP. Many Coast Guard and Volunteer Marine Rescue stations provide these courses or may advise where a local course is available. Operators of 27 MHz equipment are not required to hold a certificate but are strongly encouraged to obtain one for their own and other users' safety. Station (equipment) licences are no longer required for 27 MHz or VHF radios but are still necessary for MF/HF long-range radio equipment.

### Equipment

Marine radios are essential and in most cases the only method of lifesaving by communicating with other boats, marine rescue groups and to receive navigational warnings and weather

updates. There are many factors for you to consider including:

- the area of operations
- location of local volunteer marine rescue group
- the number of boats in the same area
- your budget
- size and type of boat.



There are four main types of marine communications equipment.

1. VHF – this is the preferred radio for shortrange communications. All large boats and an increasing number of smaller boats monitor channel 16. Areas with large boating populations have marine rescue stations monitoring channel 16 and 67 on a 24-hour/7-day basis. Weather information is regularly broadcast on channel 67. Channel 16 is for emergencies or initial calls and should not be used for routine messages or 'chat'. Most areas throughout Queensland have a local 'chat' frequency or a common use rebroadcast frequency. The local marine rescue station can advise on this practice.
2. 27MHz – this has very limited range and, although better than no radio, you should check that a limited coast station is in your immediate vicinity before relying on this equipment for your safety. Most marine rescue groups monitor channel 88 but larger boats at sea do not listen to this radio.
3. HF – these radios have a greater communication range if travelling long distances from shore although they are reliant on atmospheric conditions and to some extent on hull material. They can be difficult to operate without training and practice. All states and territories operate 24-hour/7-day monitoring on the frequencies 4125, 6215 and 8291 kHz from 'Coast Radio' stations Cairns, Gladstone, Sydney, Melbourne, Adelaide, Hobart, Perth, Port Hedland and Darwin. Queensland HF services cover coastal waters to a minimum of 200 nautical miles seaward from sites located at Cairns (call sign: coast radio Cairns) and Gladstone (call sign: coast radio Gladstone). Weather broadcasts are

made on frequency 8176 kHz. Navigational warnings are also broadcast on this frequency at the scheduled times. All operators should be competent in the operation of radios, know the frequencies dedicated to distress and safety and be able to properly format and transmit distress and safety messages.

4. Satellite equipment – although relatively expensive, the range of satellite equipment and telephones provides excellent coverage and are the preferred long-range communications devices. Training and operator certification are necessary before operating this type of equipment. As the long-term future of HF monitoring by coast stations is uncertain, investment in this type of equipment is recommended for boats on offshore voyages.

#### Equipment check

- Is the correct frequency/channel selected?
- Is the volume adjusted correctly?
- Is the squelch adjusted correctly?
- Is the RF gain set to maximum sensitivity?
- Power supply – is the battery fully charged?
- Antenna – are the leads and whip intact, not corroded, have proper earthing and connections in good order?

#### Mobile phones

Although commonly carried on boats, mobile phones can be considered only as a backup device.

They should not be seen as a substitute for emergency radio communications as:

- The cellular system does not provide for distress priority alerting.
- Mobile phones may be out of range, have low batteries or become water-damaged.
- Marine radios are used to broadcast so that all parties involved in an incident can listen. Mobile phones call only point to point. If you don't know a number, you can't call for assistance even if the boat is in sight.
- Rescue organisations cannot use a radio direction finder to trace a mobile telephone call.
- Few volunteer rescue boats are equipped with mobile phones, resulting in delays (and misinterpretation) while calls are relayed from shore.

In an emergency the most vital link between the rescuers and the rescued is radio communications.

## Operating procedures

Standard radio procedures are used internationally.

### Routine calls

Queensland has a large number of volunteer marine stations which, as limited coast stations, provide an invaluable service to the boating public. Boats are strongly encouraged to log on/off with their local station and update changes to location and intentions. Recent fatalities in Queensland highlight the disadvantages of not using this service.

When making a routine call to another boat or limited coast station, state clearly:

- The boat/group you are calling (spoken three times if communications are difficult).
- This is – name of your boat (spoken three times if necessary).
- Message.
- Over.

### Distress calls

The distress call 'mayday' may be used only if the boat is threatened by grave and imminent danger and immediate assistance is required. For example, the boat is sinking or on fire. This distress call has absolute priority over all other transmissions and may only be transmitted on the authority of the skipper or the person responsible for the safety of the boat. Calls are made on distress frequencies (VHF 16, 27.88 MHz or HF 4125, 6215, 8291 kHz).

Call procedure:

- **Mayday Mayday Mayday.**
- This is – name and radio call sign of boat in distress (spoken three times).
- **Mayday.**
- Name and radio call sign of boat.
- Details of boat's position.
- Nature of distress and assistance required.
- Other information including number of people on board, boat description and intentions.

### Urgency calls

The urgency call 'pan pan' should be used when use of the distress call cannot be justified but a very urgent message concerning the safety of your boat or the safety of a person needs to be transmitted. For example, your boat is disabled and drifting onto a lee shore or a crew member is seriously ill. You may make an urgency call only on the authority of the skipper or person responsible for the safety of your boat. Distress call frequencies (above) may be used for these calls.

Call procedure:

- **Pan pan, pan pan, pan pan.**
- Hello all stations hello all stations hello all stations.
- This is – name and radio call sign of boat (spoken three times).
- Details of the boat's position.
- Details of assistance required and other information.

### Safety calls

The safety call 'securité' should be used if you wish to broadcast an important navigational warning to other stations. For example, you have sighted a large floating object that could damage the hull of a boat.

A safety call is more likely to be made by a coast station or a limited coast station operated by a marine rescue group and may include important weather warnings such as severe thunderstorm, gale and cyclone warnings.

Call procedure:

- **Say-cure-e-tay say-cure-e-tay say-cure-e-tay.**
- Hello all stations hello all stations hello all stations.
- This is – name and radio call sign of boat or shore station (spoken three times).
- Details of the warning.

You may make the initial safety call to all stations on a distress frequency. However, you should change to a working frequency to make the broadcast of the safety message.

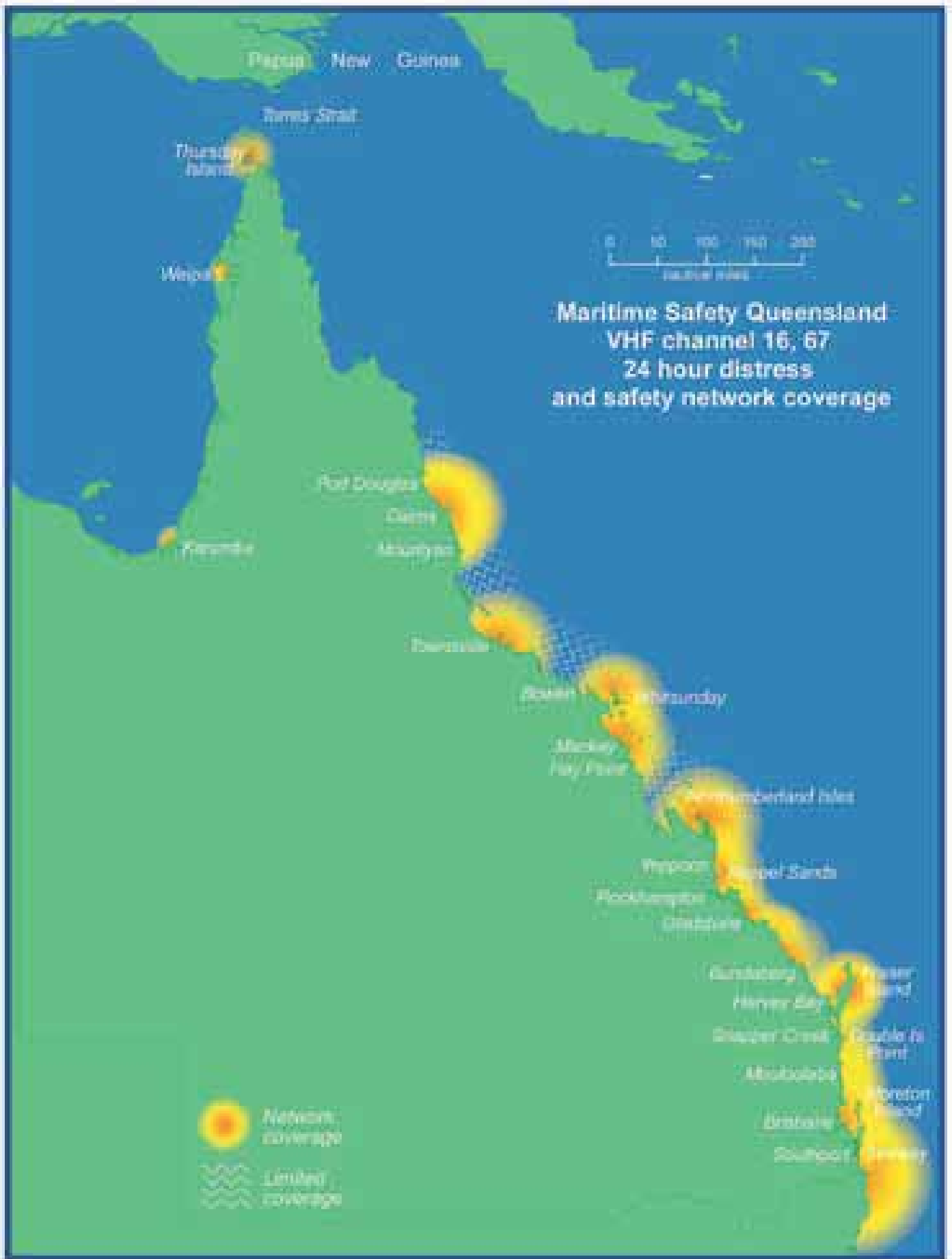


**VHF RADIO ONLINE COURSES**

**AUSTRALIAN BOATING COLLEGE**

[www.vhfradioonline.com](http://www.vhfradioonline.com)

**FAST  
SIMPLE  
EASY**



## Marine rescue stations (listed in order from South to North)

Primary distress frequencies in red

Call sign	Hours	FREQUENCIES MONITORED			Phone
		27 MHz	VHF	HF	
VMR Point Danger	24/7	88, 90	16, 67, 22, 73	4125, 2182, 2201, 2524	07 5536 9333
VMR Currumbin	0530-1200 Mon-Fri 0430-1230 w/e-p/h	88, 91	16, 67, 73	–	07 5534 1000
VMR Southport	24/7	88, 86, 91	16, 67, 22, 73, 82	4125, 2182, 2524, 4483	07 5591 1300
Coast Guard Southport	24/7	88, 86, 91	16, 67, 21, 22, 73, 81, 82	4125, 6215, 8291, 2182, 2524	07 5531 1421
Seaway Tower	0500-2200 7 days	88, 86, 91	16, 67, 22, 73, 82	–	07 5591 2948
VMR Jacobs Well	24/7	88, 91	16, 67, 73, 82	4125, 6215, 2112, 2182, 2201, 2524	07 5546 1100
VMR North Stradbroke	0730-1630 w/e-p/h	88, 90	16, 67, 12, 13, 80, 81, 82	–	07 3409 9338
Coast Guard Redland Bay	0600-1700 w/e-p/h	88, 90, 94	16, 67, 13, 21, 63, 73, 81	–	07 3206 7777
VMR Victoria Point	0600-1700 w/e-p/h	88, 90	16, 67, 63, 73, 81, 82	2182	07 3207 8717
VMR Raby Bay	0600-1800 w/e-p/h	88, 90	16, 67, 21, 73, 81, 82	–	07 3821 2444
Coast Guard Brisbane	0600-2200 w/e-p/h	88, 90, 91	16, 67, 21, 73, 81	4125, 6215, 8291	07 3396 5911
VMR Sandgate	0600-1700 w/e-p/h	88, 91	16, 67, 63, 72, 73, 81	–	07 3269 8888
Coast Guard Redcliffe	0600-2100 Mon-Thurs 24 hrs w/e (Fri 0600-Sun 2100)	88, 90, 91	16, 67, 21, 73, 81	4125, 2182, 2524	07 3203 5522
VMR Bribie Island	0600-1800 7 days	88, 86, 90	16, 67, 21, 63, 73, 81	–	07 3408 7596
Coast Guard Caloundra	0800-1200 Mon-Fri 0700-1700 w/e p/h	88, 91	16, 21, 73, 80, 81	–	07 5491 3533
Coast Guard Mooloolaba	0600-2200 7 days Night watch: 2200-0600 7 days	88, 90 –	16, 67, 21, 73, 80 16	2182, 2524 –	07 5444 3222
Coast Guard Noosa	24/7	88, 91	16, 22, 80	–	07 5474 3695
Coast Guard Tin Can Bay	0600-1800 7 days	88, 90	16, 67, 80, 82	4125, 2182, 2524	07 5486 4290
Coast Guard Sandy Straits	0700-1800 7 days	88, 90	16, 82	–	07 4129 8141
VMR Hervey Bay	0600-1800 7 days	88, 86, 91	16, 67, 22, 73	2182, 2524	07 4128 9666
VMR Bundaberg	0700-1800 7 days	88, 90	16, 22, 80, 81	4125, 2182, 2524	07 4159 4349
VMR Round Hill	0630-1800 7 days	88, 91	16, 81, 82	2182, 2524	07 4974 9383
VMR Gladstone	0630-1800 7 days	88	16, 82, 80	4125, 2182, 2524	07 4972 3333
Coast Guard Keppel Sands	0600-1800 Tues-Thurs	88, 86	16, 21, 22	4125, 2182, 2524	07 4934 4906
Coast Guard Yeppoon	0600-1700 Fri-Mon	88, 86	16, 21, 22	4125, 6215, 8219, 2182, 2524	07 4933 6600
Coast Guard Rockhampton	0800-1600 w/e	88	16, 22, 81	–	07 4921 2266
Coast Guard Thirsty Sound	24/7	–	16, 79, 81	–	07 4937 3155
VMR Mackay	0800-1800 7 days	88	16, 21, 80	4125, 6215	07 4955 5448
VMR Midge Point	As required	–	16, 21	–	0408 946 940
VMR Whitsunday	0700-1700 w/e	–	16, 22, 74, 81, 82	–	07 4946 7207
VMR Bowen	0800-1700 w/e-p/h	88	16, 21, 22, 73, 80	–	07 4786 1950
VMR Burdekin	0800-1700 w/e-p/h	88	16, 80	4125, 2182, 2524	07 4783 1014
Coast Guard Townsville	0800-1700 Mon-Fri 0700-1900 w/e-p/h	88, 90	16, 67, 22	4125, 4483	07 4771 4831
Coast Guard Ingham	0800-1700 w/e-p/h	88, 86	16, 22, 81	4125, 2182	07 4777 8110

## Marine rescue stations (listed in order from South to North)

Primary distress frequencies in red

Call sign	Hours	FREQUENCIES MONITORED			Phone
		27 MHz	VHF	HF	
Coast Guard Cardwell 0800-1700 w/e-p/h		88	16, 82	–	07 4066 8792
Coast Guard Tully 0800-1700 w/e-p/h		88, 86	16, 80	2182, 2524	07 4066 9300
Coast Guard Innisfail 0800-1700 w/e-p/h		88, 91	16, 21	4125, 2182	07 4063 2396
Coast Guard Lake Tinnaroo 24/7		88, 90	16	–	07 4091 4225
Coast Guard Cairns 0900-1800 Mon-Fri 0700-1800 w/e-p/h		88, 91	16, 67, 81	6215	07 4051 2192
Coast Guard Port Douglas 0900-1800 Sun		88	16, 81	2524	07 4099 5392
Coast Guard Cooktown 0600-1800 w/e-p/h		–	16, 21	–	07 4069 5655
Coast Guard Cape York w/e-p/h		88	16, 82	–	07 4747 9000
VMR Burketown As required		–	16	–	07 4745 5177
VMR Karumba As required		–	16	–	07 4745 9999
VMR Aurukun As required		–	16	–	07 4060 6800
VMR Weipa As required		–	16	–	07 4069 7535
VMR Thursday Island 0900-1700 7 days		–	16, 67, 22, 82, 81	–	07 4069 2444
VMR Saint Pauls As required		91	16	–	07 4069 4124

**Marine Emergencies and Search and Rescue.**  
Call 000 for marine emergencies including search and rescue.

**For routine water police enquiries contact:**

Gold Coast..... (07) 5509 5700  
Brisbane ..... (07) 3895 0333  
Redland Bay..... (07) 3829 4129  
Sunshine Coast..... (07) 5457 6711

Hervey Bay ..... (07) 4125 3900  
Gladstone ..... (07) 4971 3222  
Yeppoon ..... (07) 4933 7990  
Whitsunday..... (07) 4967 7222  
Townsville..... (07) 4760 7812  
Cairns ..... (07) 4057 3577  
Thursday Island..... (07) 4069 1520

## Bar crossings

A bar is an accumulation of sand or silt at the entrance of a river, creek, lake or harbour like the Gold Coast Seaway, Jumpinpin, South Passage Bar, Wide Bay Bar, Noosa, Caloundra, Maroochydore and Mooloolaba.

### Bar crossing rules (under 4.8m)

**If you cross the bar without a life jacket on, you cross the line**

Everyone in open boats under 4.8 metres, while crossing a designated coastal bar, must be wearing a life jacket. Designated coastal bars include Wide Bay Bar, Noosa Bar, Maroochydore Bar, Caloundra Bar, South Passage Bar, Jumpinpin Bar, Tallebudgera Bar, Currumbin Bar.



### Bar crossings can be dangerous

Conditions prevailing on a bar can cause steep and often breaking seas. For this reason it is important to take a number of precautions and manoeuvre the boat with extreme caution. Crossing a bar is a job for an experienced boat handler.

Conditions on a bar change quickly and without

warning. The skipper's experience and boat type should be taken into account when considering a bar crossing. No amount of experience or boat type makes crossing a bar safe when the conditions are adverse. Don't take a risk – if in doubt, don't go out.

All sand bars are different. You need to learn about each bar by seeking advice from groups who may cross it on a regular basis or local commercial boating operators, maritime authorities, marine rescue groups, Boating and Fisheries Patrol or the Water Police. Immediately prior to crossing a bar always contact the local marine rescue group for an update on conditions at the bar.

Boat operators must assess conditions on a bar and be aware that a rapid change in conditions might prevent a safe return. Boats unable to withstand adverse sea conditions outside the bar should not leave port. Obtain a weather report for the time of crossing the bar and a weather forecast of conditions expected on your return.

### Preparing to cross a bar

- Effective communication must be established with the local marine rescue group.
- Obtain up-to-date tide and weather information.
- It is always preferable to cross on an incoming tide.
- Stay at a safe distance until a report on the prevailing bar conditions has been obtained.
- Ensure that all deck openings, hatches and doors are securely battened down or closed.
- All loose gear must be secured.
- All persons must wear an approved PFD.
- Ensure all lifesaving equipment is accessible and ready for immediate use and everyone knows how to use it.

### Crossing a bar

- While approaching the bar keep a close lookout for depth of water, smallest waves, where the breakers are and where gaps appear.
- Check where other boats are crossing the bar. This will be the most likely spot you too will cross the bar.

Monitor the:

- prevailing wind direction and force
- sets – wave pattern and timing
- course to follow
- bar traffic
- alternative routes.

- Ensure any preceding boat is well clear of the bar before attempting to cross.
- Approaches should be made at a moderate speed so the operator is capable of increasing or decreasing speed.

### Outbound – Heading out to sea

- Motor slowly to the breaking waves looking for the area where waves break last or, preferably, not at all. Wait for a flatter than usual stretch of water and motor through.
- If there seems no break in the waves slowly power through each oncoming wave.
- Ensure you are not going too fast over each wave as this could cause the boat to 'bottom out' if it dives heavily.
- If possible, make the crossing with the waves slightly on the bow so the boat rolls gently over the crest of each wave.

### Inbound – Heading back to port

- Approaching from sea, increase power of the boat to catch up with the bigger set of waves.
- Position the boat on the back of the wave (do not surf down the face of the wave).
- Adjust the boat's speed to match the speed of the waves – but do not attempt to overtake the waves.

## Carbon monoxide and confined spaces

You can't smell it, see it or taste it, but it could be surrounding you right now! Carbon monoxide is a hazardous gas that, in a confined space may initiate an onboard emergency.

Appropriate procedures need to be in place for safe entry into confined spaces such as sealed void spaces, fuel tanks, sullage tanks, battery storage compartments and compartments where explosive gases may accumulate.

Failure to adopt a systematic and carefully managed approach can result in injury or death. Risks that need to be managed are:

- excessive noise
- unguarded belts, shafts and other moving machinery parts
- high temperatures, especially around exhausts
- gas leakages and accumulation
- high pressure hydraulic lines
- corrosive and toxic chemicals and fumes
- good housekeeping, proper servicing and maintenance, proper clothing and personal safety devices.

Carbon monoxide is a deadly gas that can make you dangerously sleepy. Early symptoms of carbon monoxide poisoning are headache, nausea and fatigue. These symptoms can be mistaken for the flu because the deadly gas goes undetected. They can be a warning that a dangerous concentration is being inhaled. Prolonged exposure can lead to brain damage and at worst death, especially if children are onboard.

If you have confined spaces onboard your boat ensure you understand the risks and follow the correct safety procedures.

## Pollution

Whether your boat is large or small, it is an offence to deliberately discharge pollutants into Queensland coastal waters.

### Litter

Everyday items such as cigarette butts, plastic bags, bottles, cans and discarded fishing gear are common causes of marine pollution. These objects, whether discarded intentionally or simply blown overboard, contribute to increasing pressures on marine ecosystems.

Marine animals and sea birds can mistake plastic material for food and often end up dying a slow and painful death from starvation or strangulation.

Simple measures can help protect marine wildlife and save you the embarrassment and cost of a fine.

- Don't throw anything overboard.
- Have secure bins or garbage bags to store garbage onboard until you return to shore.
- Use crockery or re-useable plates and cutlery.
- Make the effort to retrieve lost or damaged fishing gear.
- If garbage does end up in the water, take the time to pick it up.
- Don't abandon crab pots, as floats and lines can entangle wildlife and foul boat propellers.



### Vessels 12 metres and over

All vessels measuring 12 metres or more are required by law to display a placard with the following information. Fines of up to \$2,000 apply.



### Paint scrapings

Harmful chemicals and compounds found in paint scrapings and wood preservatives are found to have long-term effects on numerous plant and animal species. Paint scrapings and residues that enter the water from hull maintenance activities are classed as garbage pollution. If not properly controlled, hull maintenance activities including scraping, sanding, pressure washing and painting can put toxic pollutants into the marine environment, which is an offence under Queensland legislation. Although hull-maintenance activities are not specifically administered by Maritime Safety Queensland, best practice suggests the following tips to minimise your potential impact on the marine environment:

- Conduct major maintenance activities on land or in a commercial slipway.
- Use less toxic substitutes such as phosphate-free and biodegradable soaps for cleaning.
- Use alternatives to antifouling paints.
- When conducting vessel maintenance that will generate sawdust, scrapings, paint chips, debris or drips and so on, use drop cloths to catch these by-products.
- Mechanical sanders/scrapers equipped with vacuum bags are effective at removing paint in a way that prevents the spread of dust, debris and residue into the air and into the marine environment.
- Dispose of all waste products and materials into appropriate receptacles.

## Fuels, oils and chemicals

Most oil and chemical pollution results from activities such as refuelling, boat maintenance and bilge discharges.

Oils including petrol, hydraulic oil and gear box oil and chemicals such as degreasers and paints contain a range of toxins harmful to both marine animals and humans.

Boat operators need to help reduce oil and chemicals entering our waterways.

- Do not overfill your tank.
- Watch the breathers for signs of blow-back or overflow.
- Ensure your bilges are clean before discharging them.
- Use phosphate free biodegradable detergents.
- Carry absorbent material onboard to clean up any accidental spills.
- Repair oil and fuel leaks when first noticed. If you accidentally spill oil or chemicals into the water, or see a spill, do your bit for the marine environment and contact your local harbour master, marina manager or Port Authority, so it can be contained and cleaned up as soon as possible.

## Sewage

The discharge of sewage into the marine environment poses serious health and environmental issues.

Pathogens such as viruses, parasites and bacteria found in sewage can potentially be passed on to other waterways users while swimming, surfing or diving or by consuming contaminated shellfish such as mussels and oysters.

Given the right conditions excess nutrients entering the water from sewage discharges can also lead to algal blooms. As blooms die off and decompose, they release toxins and deplete the oxygen in the surrounding water.

To reduce the impacts associated with vessel sourced sewage, Maritime Safety Queensland imposes restrictions on the locations where different types of sewage can be discharged. Sewage is categorised as either treated or untreated.

### Untreated sewage

Untreated sewage is sewage that has not passed through an on-board sewage treatment system. In areas where the discharge of untreated sewage is allowed, the effluent must pass through a macerator before being discharged, in order to assist with dispersion and improve visual amenity for all waterways users.

Macerated sewage is not classed as treated sewage. Macerated sewage is untreated sewage.

Untreated sewage is prohibited from being discharged in the following areas:

**1. Prohibited discharge waters** — canals, marinas, boat harbours, the Noosa River and designated areas of state marine parks.

**2. Smooth waters**


**3. Hervey Bay and Northern Moreton Bay waters** – within 1852m (1 nM) of reefs, for example oyster lease or fish farm, the mean low water mark of the mainland, or if the ship is a declared ship, all Hervey Bay and Northern Moreton Bay waters. (A declared ship is a Class 1 commercial passenger-carrying vessel with a fixed toilet).

**4. Open waters** – (a) within 926m (1/2 nM) of a wharf or jetty other than a jetty that is a marina (b) within 1852m (1 nM) of

– aquaculture fisheries resources


– if a vessel has 7–15 people on board: a reef, or the mean low water mark of an island or the mainland.

**Please note: If you have 16 or more persons onboard, the discharge of untreated sewage is not permitted anywhere in Queensland coastal waters.**



East Coast Marina offers casual and permanent berths 9m to 20m  
Dry Rack Storage for vessels to 10m  
Slipping to 50ft and 25 tonnes  
Repair yard services available

*All located in Manly Harbour*



570 Royal Esplanade, Manly  
**Phone 07 3393 3811**  
**Fax 07 3393 4252**  
www.eastcoastmarina.com.au  
Email: info@eastcoastmarina.com.au

## Treated sewage

Treated sewage is sewage that has passed through an onboard sewage treatment system and is categorised as either grade A, B or C depending on the level of treatment it has received.

Treated sewage can be discharged subject to the following restrictions:

**For all treated sewage:** nil discharge in prohibited discharge waters such as canals, marinas, boat harbours, the Noosa River and designated areas of state marine parks.

**Grade A treated sewage (highest level of treatment)**  
No further restrictions.

**Grade B treated sewage (moderate level of treatment)**  
Nil discharge in Hervey Bay waters, Northern Moreton Bay waters, open waters and smooth waters within 700m of the following:

- a person in the water
- aquaculture fisheries resource
- a reef.

**Grade C treated sewage (lowest treatment)**  
Nil discharge in Hervey Bay waters, Northern Moreton Bay waters, open waters and smooth waters within 926m (1/2 nM) of the following:

- a person in the water
- aquaculture fisheries resource
- a reef.

Refer to Maritime Safety Queensland's website for up-to-date requirements.

## Boating offshore

Every year more recreational boats are travelling offshore to fish. With more reliable motors and the introduction of technology like GPS, boat owners feel more confident about heading into open waters and moving further afield.

Boating in offshore waters brings with it a new range of safety issues which the skipper must be aware of in order to be a responsible skipper.

The number one criterion is to have a boat that is suitable to handle offshore conditions and is capable of travelling extended distances in rough conditions. Dinghies are not suitable offshore craft. While conditions in the morning might look ideal, these can change rapidly and become rough and dangerous.

Offshore boats should have an enclosed foredeck to prevent water coming on board, or if the craft is an open boat with centre console configuration, a self-draining deck.

Flotation is a must and many new boats will have a level of buoyancy built in and specified on the Australian Builders Plate. However, the aim is to prevent water coming on board, and if it does, to be able to offload it as quickly as possible.

 **FOUR WINNS®**

 **SUZUKI**  
**MARINE**  
WORLD'S BEST 4-STROKE™



 **QUINTREX**  
Boating Made Easy

 **MERCURY**



 **MERCURY**  
MerCruiser

*Springwood Marine*

**3366 Pacific Hwy, SPRINGWOOD Ph 07 3297 8200 Fax 07 3297 8290**

SMRBG2011b

**AH: Michael 0418 736 106**

**SHOP ONLINE!**

View our full range of used boats

[www.springwoodmarine.com.au](http://www.springwoodmarine.com.au)



**FIND US ON FACEBOOK!**