

**NORTH QUEENSLAND MARITIME**  
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This document has been prepared by NQ Maritime Pty Ltd to assist applicants obtain their QUEENSLAND RECREATIONAL MARINE DRIVERS LICENCE and their QUEENSLAND PERSONAL WATER CRAFT LICENCE.- ( NQ Maritime are committed to a continuous improvement program ).

## General rules and requirements

### Buying a new or used boat

#### What you should know

Does the boat meet your needs?

Will it carry the number of people you want without overloading it?

Will it operate safely in the waters where you usually fish or plan to fish?

#### A new boat

(A) Has it an affixed Australian Builders Plate? If not check with the dealer as it should have a plate attached. The plate indicates the maximum horsepower for the vessel, maximum carrying capacity in passengers or weight and whether the boat is fitted with basic buoyancy or level buoyancy.

(B) Have navigation lights been fitted? If so are they fitted correctly? For small craft, the standard navigation lights are starboard and port sidelights and an all round white light. The sidelights must be fitted so they are parallel with the centre line of the boat, not aligned with the curve of the bow. The all round white light must be a metre above the main deck of the boat so that it can be seen from all directions.

(C) If the dealer has fitted registration numbers, is each numeral or letter a minimum of 200 mm high legible from 50m away? Also are they dark numbers on a light background or light numbers on a dark background displayed on both sides of the vessel? You may be fined if the registration numbers do not meet these requirements. In the case of a non-displacement boat (in other words a boat that does not plane at speed), the numbers can be a minimum of 75 mm in height and displayed on the stern of the boat, or both sides of the boat.

(D) Does it have safety equipment supplied? If so check the safety equipment table to ensure you have all the required equipment. Life jackets are important items – if you have purchased the boat with the cheapest life jackets available consider purchasing some PFDs type 1 of a reasonable quality or the inflatable type which can be worn with comfort most of the time. (Remember – children under 12 years must wear a life jacket in open boats under 4.8 metres when underway).

(E) Is the boat fitted with an under floor fuel tank? If so has a water trap fuel filter been fitted to the boat somewhere in the vicinity of the transom? It is recommended that all boats, even if portable tanks are used, have a water trap fuel filter fitted.

#### A second hand boat

If the boat was built before the Australian Builders Plate was required (2006), then you must have displayed a capacity label (see page 9) by which you have determined how many people the boat can carry safely. Instructions on how to determine a boat's capacity are located on the back of the label.

All of the above are relevant to a second hand boat. Because the boat is older and may have been modified by previous owners, be sure to check:

- life jackets meet the current standard
- flares or EPIRB are in date; obtain a 'Don't Expire' sticker and note the expiry dates on space provided
- if tiller steered, a safety lanyard is attached to the cut off switch for the motor
- registration numbers are the correct size and in contrasting colours with the registration label attached.

### Registering a boat

All boats fitted with a motor or auxiliary of 3KW (over 4hp) and over require registration when on the water in Queensland. Registration forms are available from, and must be lodged with, a Transport and Main Roads customer service centre. Fees are calculated according to the boat length. (Exemptions and concessions do apply in some cases).

The registration label must be attached to the exterior of the boat in a conspicuous place above the waterline on the port (left) side.

Your boat will be allocated registration symbols. These must be clearly visible in plain characters in a contrasting colour to the hull of the boat. The size of the characters depends on the type of boat and must be able to be read from a distance of 50 metres.

- Vessels capable of planing must have characters a minimum of 200mm high on both sides.
- Personal watercraft (PWC) registration symbols must be displayed on both sides at least 100mm high, easily seen while the craft is underway.
- Vessels not capable of planing, (for example canoes with motors, yachts) must have characters a minimum of 75mm high on both sides or on the stern.

When a registered boat is sold it is the responsibility of the new owner to lodge an application for transfer of the registration within 14 days. Registration may be cancelled if the boat is no longer used in Queensland, is withdrawn from service or no longer meets registration requirements. **Interstate visitors** must comply with Queensland rules and may be required to register the boat while in Queensland.

Third party insurance is not included in the cost of registering your vessel. Independent advice should be sought about insurance if required.

#### Tender boats

Tenders to registered recreational boats are exempt from registration provided they are used within two nautical miles of the primary boat. The tender must be marked with the word 'tender' as well as the primary boat's registration numbers (at least 75mm high) on the exterior of the tender, if this is not

possible, marked on the inside of the boat in the largest characters possible. The tender may be marked with the owner's name, if it is used for more than one of the owner's boats.

Tenders that are not registrable, are not required to carry safety equipment other than a light for signalling. Operators should consider equipping a tender with safety equipment appropriate to the location of operation.

## Marine driver licence

A valid licence is required to operate all recreational boats powered by a motor of more than 4.5KW (over 6hp).

Valid licences include:

- recreational marine driver licence
- recreational ship master's licence
- speed boat driver's licence
- current commercial marine licences – for example coxswain
- current interstate boating licences issued in other states (excludes junior licences)
- PWC licence.

To obtain a recreational marine driver licence you must:

- be aged 16 years or older
- demonstrate you are competent to navigate and manage a recreational boat by successfully completing an approved BoatSafe licence training course
- complete the Medical Fitness Disclosure Statement and present it to the BoatSafe training provider at enrolment for the BoatSafe course.
- provide satisfactory evidence of identity – a photographic Queensland driver licence (current or expired less than two years) is acceptable..

Licences are issued for a lifetime. A paper licence is not issued as details are attached to a person's details in the driver's licence database. Confirmation reports can be obtained for a fee and should be carried when boating interstate.

Unlicensed drivers may drive a boat (where a licence is needed) provided a licensed driver is on board and is able to take immediate control. Unlicensed drivers are not allowed to tow a person (such as a water skier).

Interstate visitors must comply with Queensland's licensing regulations. Queensland recognises other states' licences. If your home state does not have any licensing requirements, you should obtain a recreational marine driver licence before boating in Queensland.

## BoatSafe – How to obtain a licence PHONE 07 32876262 MOB 0418159162.

BoatSafe is a competency-based, uniform licence training and assessment scheme for recreational boat licences aimed to improve boating safety in Queensland.

Under BoatSafe, a candidate for a recreational marine driver licence must satisfactorily complete either an approved BoatSafe competency-based training and assessment program or recognition of prior learning (RPL) with an approved BoatSafe training provider. This means that people applying for a licence must meet the minimum satisfactory level of skills and knowledge before they are successful in obtaining a licence.

## New Queensland driver licence cards

The Queensland Government is introducing more secure, more durable and more credible licences, authorities and proof of age cards to replace the laminated cards and marine licence confirmation reports that have been used for the past 20 years.

Unlike the current laminated cards, the new cards use smartcard technology and are extremely hard to tamper with or duplicate. The Department of Transport and Main Roads will begin transitioning to the new cards in late 2010.

When the cards are introduced, a marine licence indicator will be put on the back of your driver licence if you hold one. A blue Marine Licence Indicator will be given to applicants who do not hold a vehicle driver licence.

The cards will be introduced in a rolling program, with cardholders transitioning to the new cards when their existing licence or authority expires.

Queensland driver licences are issued for a period of up to five years, so it will take approximately five years for all cardholders to replace their laminated licences or authorities with the new cards. During that time, both laminated cards and the new cards will be recognised licences, authorities and proof of age cards (provided they are current).

For more information go to [www.tmr.qld.gov.au](http://www.tmr.qld.gov.au).

## Australian Builders Plate

To enhance the safety of new recreational boats, the Australian Builders Plate is required for new and imported recreational boats built from 1 July 2006. It provides essential safety information on the uses and limitations of most new and imported recreational boats. It will assist people in the purchase and responsible use of a boat and enhance safety by providing information on the maximum number of people and load of a boat, as well as buoyancy performance and engine weight and rating. An Australian Builders Plate confirming compliance with the level of flotation (basic or level) requirements will be permanently fixed and readily visible to the boat's operator.

The Australian Builders Plate is not a statement of positive flotation. This must be obtained from a manufacturer or accredited surveyor.

Owners who are upsizing motors on recreational boats and/or altering the performance by design may not be meeting their general safety obligation if the engine power is greater than the manufacturer's recommendation on the compliance plate.



Australian Builders Plate



Capacity Label

Please note: If the vessel has an Australian Builders Plate fitted where it can be seen clearly from the steering position, a capacity label is not required.

Overloading your boat is one of the easiest ways to capsize it. By allowing more people on board a boat than its maximum capacity, the risk of capsizing significantly increases. Overloading compromises the safety of everyone on board. Capacity labels have been designed to show operators how many people they can have safely on board. All registrable boats, except yachts with auxiliary motors, are now required to have capacity label(s). Placing a capacity label adjacent to a boat's control areas means operators are constantly reminded of their boat's recommended loading capacity. Capacity labels must be fitted where they can be seen clearly from each steering position.

**There are three different capacity labels available:**

- Powered boats under six metres.
- Powered boats six metres and over.
- Powered boats with a flybridge.

The label indicates the number of people the boat can safely carry in good conditions (fair weather conditions in smooth waters). The onus of safety rests with the operator at all times. When using the boat in exposed waters or in rough conditions, the operator should consider reducing the number of persons taken on the trip.

Labels are available from Department of Transport and Main Roads customer service centres or can be ordered from your local Maritime Safety Queensland office or website.

*Penalties apply.*

Know how to safely load your boat by:

- Storing heavy items low and central in a place where they cannot move around.
- Distributing the weight, including passengers, evenly around the boat.
- Compensating for the weight of extra fuel.

## Alcohol

### Drink right – drink light

If the skipper is found operating with a blood alcohol limit of .05 or over, penalties will apply, including licence cancellation and a fine. The skipper is also responsible for the safety of passengers and should be responsible for their alcohol consumption. Remember that the effects of alcohol are exacerbated while on the water due to the sun, wind, and constant motion. Reflexes and response times to emergencies are slowed and swimming ability deteriorates considerably.

When on the water, your coordination, judgement, vision, balance and reaction time can decline up to three times faster when using alcohol. Waves, motion, vibration, engine noise, weather, wind and spray – can multiply the effects of alcohol.

People aboard need to take care because studies have shown that boat passengers are just as likely as operators to be involved in incidents such as capsizing the vessel or falling overboard as a result of drinking alcohol.

In Australia and New Zealand, alcohol has been a factor in one third of all boating fatalities.

**Don't multiply the risks – go easy on the drink**

### Insurance for vessels over 15 m

Legislation requires all ships over 15 metres (for example 15.01 metres) in length to have insurance sufficient to pay for potential pollution clean up, salvage and wreck removal. The insurance policy must meet the following requirements:

- All recreational ships more than 15 metres but less than 35 metres in length must have an insurance policy that provides \$250,000 for pollution clean up and \$10,000,000 for salvage and wreck removal.
- All commercial ships more than 15 metres but less than 35 metres in length must have an insurance policy that provides \$500,000 for pollution clean up costs and \$10,000,000 for salvage and wreck removal.
- All ships 35 metres or more in length must have a policy that provides \$10,000,000 for pollution clean up costs, salvage and wreck removal.

Ships visiting Queensland coastal waters are also required to comply with the legislation. Temporary insurance cover may be necessary if existing insurance coverage does not meet the above requirements..

A current certificate of insurance must be carried onboard and be available for inspection by compliance officers. Penalties apply for non-compliance.

For those ships which cannot reasonably obtain insurance, the ship owner may be able to seek an exemption to the insurance requirement. In such cases the ship owner must apply to Maritime Safety Queensland. For details on how to apply for an exemption go to the registration link at [www.msg.qld.gov.au](http://www.msg.qld.gov.au). For further information contact a Maritime Safety Queensland regional office or Maritime Services Branch on 07 3120 7428.

## Marine incidents

All marine incidents must be reported to a Shipping Inspector within 48 hours, unless there is a reasonable excuse. Shipping Inspectors include some Maritime Safety Queensland officers (located in regions), and officers of the Queensland Boating and Fisheries Patrol and Queensland Water Police.

Reportable incidents include:

- the loss of a person from a boat
- the death of, or grievous bodily harm to, a person caused by a boat's operations
- the loss or presumed loss or abandonment of a boat
- a collision with a boat
- the stranding of a boat
- material damage to a boat
- material damage caused by a boat's operations
- danger to a person caused by a boat's operations
- danger of serious damage to a boat
- danger of serious damage to a structure caused by a boat's operations.

Reports should be made by completing and lodging an approved marine incident report form. The form can be accessed under the safety link at [www.msg.qld.gov.au](http://www.msg.qld.gov.au) and is available from Maritime Safety Queensland and enforcement agencies offices.

Common marine incidents include groundings, capsize and swamping incidents, collisions with other boats, buoys, jetties and pontoons, fires, falls within a boat and persons overboard.

Incidents involving injuries to people must always be reported even if the boat does not sustain any material damage.

If in doubt about whether an incident is reportable—report it.

Why reporting is important

The reporting of marine incidents is not only a legal requirement, but the information is vital to the development of safety standards, education and on-water compliance programs that will benefit all waterways users.

In addition, reporting a marine incident may assist you if you decide to make insurance claims on any damage. Most insurance companies will not honour claims if the marine incident has not been officially reported. They may also require that you provide them with a copy of the lodged marine incident report form and acknowledgement letter.

## Speed limits

**Complying with speed limits is safe boating for yourself and shows courtesy to others.**

All boats must travel at a safe speed where the driver can act to avoid a collision and can stop the boat in time to avoid any danger that arises suddenly. There have been many casualties resulting from boats travelling at excessive speed, especially in narrow waterways.

Speeding causes major problems on Queensland waterways such as unsafe conditions, inconvenience to others, damage to infrastructure and erosion. That's why distance off and no wash rules exist. All boat owners need to be aware of these rules and more importantly, take notice of them.

Six (6) knots is the minimum speed limit and is equivalent to approximately 11 kilometres per hour. There are many times when the skipper should reduce the boat's speed even further to be safe. An example of this is when the vessel is creating excessive wash. Some boats create excessive wash at six knots. It is the responsibility of the driver to slow the vessel so that any wash created is minimal.

The maximum speed limit is 40 knots on all smooth waters and dams.

### Distance off

Six knots within 30 metres of:

- boats anchored, moored to the shore or aground
- jetty, wharf, pontoon or boat ramp
- people in the water
- boat harbours and marinas

Six knots is equivalent to a brisk walking pace.

Speed restrictions are usually indicated by signs. However, the rules apply whether the signs are there or not.

Learn how to measure distance. For example, 30 metres is ten times longer than a three metre boat and five times longer than a six metre boat.

Refer to Maritime Safety Queensland's website [www.msq.qld.gov.au](http://www.msq.qld.gov.au) to keep up to date with speed limits.

Queensland Water Police and Queensland Boating and Fisheries Patrol target speed and excessive wash to ensure compliance. Offences carry heavy on-the-spot penalties.

### Wash

Many speed limits are in place to minimise the wash created by boats. Therefore it is essential as a boat owner or skipper to maintain a speed that creates minimal wash.

Wash can create serious safety hazards for other boats, especially in marinas and anchorages where there is an expectation of calm conditions.

Wash can also create damage to:

- pontoons
- jetties
- vessels moored to these structures
- vessels in shallow water or anchored on a foreshore
- shorelines and river banks.

Create a minimum of wash and show consideration to other boaters.

A six knot speed limit applies to all canals in Queensland.

### Unlawful operations

A person who is the owner or master of a ship must not operate the ship within 30 metres of a diver in the water if a code A flag is displayed in the vicinity of the diver.



**When navigating a boat you must consider:**

- **Visibility:** Drive slowly in rain, fog, mist, smoke and glare. Take special care when travelling at night as potential hazards are harder to see.
- **Other boats:** Slow down in busy areas and when near moored or anchored boats, and remember – working boats and larger ships may have difficulty manoeuvring.
- **Navigation hazards:** Slow down in shallow areas and when boating in unfamiliar water. Water depth can vary and change quickly, particularly in freshwater.
- **Wind, waves and currents:** These may affect the boat's stopping and turning ability. The type of motor, hull and design will all impact on the boat's manoeuvrability.

## Trip preparation

### Boat care and maintenance

As part of the general safety obligation it is the owner/operator's responsibility to ensure the boat is in a seaworthy condition and suitable for the trip.

#### Motor care

Regular preventative maintenance and servicing by a qualified mechanic may avoid a breakdown at sea. Some of the causes for engine failure are minor, so you should be able to troubleshoot a problem. Learn how to change the filter and primer bowl; clean and change spark plugs; check for spark; check and replace fuses; and change the propeller. You should also carry spares on board whenever you go out.

#### Fuel system

- Check for fuel fumes before starting engine/s.
- Once a year the fuel tank should be cleaned with suitable cleaning solvent.
- Inspect the fuel tank for any cracks or corrosion.
- Always replace old fuel with new fuel after periods of inactivity.
- Inspect fuel lines, manual priming bulb and connections for cracks and leaks.
- Clean out or replace the fuel filter.

## Batteries

- Top up battery cells with distilled water and check each cell with a hydrometer.
- Ensure proper ventilation.
- If voltage is low, charge the battery at a rate that is suitable to the battery. The battery should never be overcharged.
- Batteries should always be secured in brackets.
- Terminals should be kept clean and greased regularly. Furthermore, conduct a general check of the boat before each trip.

## Boat care

- Inspect the boat for corrosion, cracks and general wear and tear.
- Test steering gear for stiffness.
- Self draining holes must be kept clear – check drain flaps and lubricate if necessary.
- If LPG is fitted, ensure the system is regularly serviced.
- Ensure bilges are clean and dry.
- Check for water and fuel leaks.
- Inspect anchor, shackles and ropes for any sign of wear and replace if necessary.
- Inspect safety equipment for any deterioration or damage (including expiry dates).

## Tell someone where you are going

Log your trip with your local Volunteer Rescue/Coast Guard station. You will be asked to advise the vessel name, registration details, number of persons on board (POB), your destination, and your estimated time of return. Other useful information you could provide includes a description of your vessel and radio channels you intend to monitor. You should also advise a family member or friend of your intended trip with an indication of when to advise authorities if you are not back. Failure to advise these details has contributed to a number of deaths in Queensland in recent years.

## Weather – Make the safe call

Queensland's weather systems are changeable and unpredictable. Good weather is critical for a safe and comfortable trip. Forecasts should be obtained when planning a trip, before you leave and updated while you are out on the water. Maritime Safety Queensland's Weather Service provides weather information from the Bureau of Meteorology at the cost of a local phone call.

All of Queensland	1300 360 426
Marine Warnings	1300 360 427
South-East Queensland	1300 360 428

Information on current, wind, cyclone and tsunami warnings can also be found on the Bureau of Meteorology website at [www.bom.gov.au](http://www.bom.gov.au).

## Is the boat safe?

- Remember your general safety obligation – as master you are responsible for the safety of the boat and the people on board.
- Regular boat maintenance and motor servicing are essential.
- Don't overpower the boat; check the builder's plate for maximum horsepower.
- Know your boat's limits; stay within these limits.
- Know how to load and distribute the weight in your boat for maximum stability. Have the heaviest items placed centrally in a low position in the boat. Distribute passengers evenly around the boat.

## Safety equipment

### Safety equipment for registered and non-registered boats under the GSO

The GSO means general safety obligation and requires all boat owners and operators to make sure the boat is safe, appropriately equipped and crewed, and operated in a safe manner.

Boats requiring registration must carry the regulated safety equipment refer to the (safety equipment table). Additional safety equipment recommended in the Standard should also be carried to satisfy the general safety obligation. This allows boat owners and operators to choose the equipment best suited for the type of boat and intended voyage.

Boats not requiring registration do not have to carry the regulated safety equipment, but the skipper still has a general safety obligation. When deciding what to take on board, remember your obligation – if you fail to carry a piece of equipment that could have helped to prevent an accident, you could be prosecuted.

### Compulsory wearing of PFD

#### Under 12, under 4.8, underway

Children under the age of 12 in open boats under 4.8 metres must wear properly fitted life jackets while underway. A boat is underway when it is not at anchor, made fast to the shore or aground (underway includes drifting). This applies to commercial, fishing and recreational boats.

In circumstances of heightened risk the chances of survival are greater in the event of an incident if a life jacket is being worn.

Experience has shown that even if there are life jackets nearby, there is often not enough time to put them on when faced with a life threatening situation. Emergency or high risk situations can happen very quickly on the water, even if conditions look calm. Once in the water it is extremely difficult and in some instances impossible to put your life jacket on. So while most people know that life jackets save lives

**“It is not a life saver if you're not wearing it”.**

#### CROSSING A DESIGNATED COASTAL BAR.

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

### Personal flotation devices (PFDs)/life jackets

### **PFD type 1**

For use in smooth, partially smooth and open waters. Must comply with Australian Standard 1512.

Provides sufficient flotation to support the body and head and has reflective tape for visibility. The flotation collar keeps your head above water.

### **PFD type 2**

For smooth or partially smooth waters only. Must comply with Australian Standard 1499. Will keep you afloat but does not have a collar to keep your head above water.

### **PFD type 3**

For smooth water only where the user is likely to be in the water only for a short time. Must comply with Australian Standard 2260. (For example, while skiing). Has the same buoyancy as PFD type 2 although colours are not as visible.

### **Inflatable PFDs (life jackets)**

Inflatable life jackets are now approved equipment and have reduced in price making them affordable and a good alternative to the standard PFD type 1.

The advantage of an inflatable life jacket is that it can be worn while on board with a degree of comfort and minimal restrictions, encouraging all on board to wear a jacket as a safety precaution. An inflatable life jacket would be a good alternative for children under 12 who must wear a life jacket when on open boats under 4.8 metres in length, especially in summer.

Inflatable jackets must be gas inflated and not rely on oral inflation only. Inflatable PFDs must also show a legible expiry date and be serviced by the manufacturer or manufacturer's agent or be replaced before the expiry date. Inflatable personal flotation devices and life jackets that rely solely on oral inflation for buoyancy are not acceptable as part of your safety equipment requirement.



## **LIFE JACKET LIFESAVER – IT'S NOT A LIFESAVER IF YOU'RE NOT WEARING IT!**

### **Coastal and SOLAS life jackets**

These jackets have more flotation than PFD type 1 and are recommended to be carried by boats operating long distances offshore. Regulation sets Coastal and SOLAS specifications as the minimum requirements for life jackets on commercial vessels. They are bulky life jackets designed to keep the body afloat for a long period. They have reflective tape and a whistle to attract attention. There are additional acceptable standards for coastal life jackets. Contact Maritime Safety Queensland for details.

### **PFDs – Are yours up to standard?**

All personal flotation devices (PFDs, or life jackets) must comply with Australian Standard AS 1512 for PFD 1, AS 1499 for PFD 2 or AS 2260 for PFD 3.

To meet the requirements, all PFDs must have the following markings:

- Manufacturer's name, trade name or trademark.
- The words PFD TYPE 1, PFD TYPE 2 or PFD TYPE 3 in block letters not less than 6 mm high, with the words below: 'CAUTION: May not be suitable for all conditions' (or for a child's PFD, the words CHILD'S PFD TYPE 1 and a caution advising that a child wearing the PFD should be under competent supervision).
- Manufacturer's model identification, batch identification and year of manufacture.
- Intended body mass range.
- Illustrated instructions for donning the PFD.
- Instructions for storage and care.
- Information related to replacement or checking of gas cylinders of inflatable PFDs.

Note: A PFD with a Standards Australia mark, including the number 1512 must also have a marking identifying it as a PFD Type 1.

Also check the condition of your PFD to ensure:

- Parts which are visible when the wearer is submerged (from the armholes up) are high visibility in colour.
- It is in good working order, and elements such as stitching and colour have not deteriorated with age.

### **New personal flotation devices (PFDs)/life jackets standard**

Standards Australia has introduced a new standard, AS 4758, for personal flotation devices.

From 1 February 2010, personal flotation devices made under this standard are accepted for use in Queensland as part of your safety equipment requirement. You will start to see personal flotation devices made to the new standard appearing in retail outlets.

Personal flotation devices made to the standards AS1512, AS1499 and AS2260 are still acceptable for use as long as they are in good condition. You do not have to upgrade your current personal flotation device.

The standard AS4758, has a new rating system for personal flotation devices.

Here is how they compare with the current types:

Current Standard	Under standard AS4758
Coastal life jacket	Level 275 Level 150
PFD type 1	Level 275 Level 150 Level 1000
PFD type 2	Level 50
PFD type 3	Level 50 special purpose

## EPIRBs

All boats, regardless of whether they are registrable, operating beyond smooth and partially smooth waters must carry an Emergency Positioning Indicating Radio Beacon (EPIRB) if more than two nautical miles from land.

EPIRBs should be used only as a last resort if the boat or crew are in grave danger. Use other communications or signalling equipment first, such as marine radio, flares, V sheet or a mobile phone.

Search and rescue authorities respond to all activations, therefore it is important to let them know immediately if assistance is no longer required. There is no penalty for accidentally activating an EPIRB but remember to either radio the local volunteer marine rescue organisation or call Rescue Coordination Centre's 24-hour emergency number on 1800 641 792. To avoid accidental activations store EPIRBs in an accessible place away from gear and passengers.

EPIRBs have expiry dates, and if past or near this date, the unit must be serviced or replaced by the manufacturer or an authorised agent.

To ensure you comply with Queensland legislation you must:

- carry a 406MHz EPIRB if you operate beyond smooth or partially smooth waters or more than two nautical miles from land (fines will apply)
- ensure that your EPIRB complies with the Australian / New Zealand standard 4280.1:2003
- ensure your new 406MHz beacon is registered with the Australian Maritime Safety Authority (AMSA) – registration is free and must be renewed every two years
- advise AMSA of any change to ownership and vessel details.

Registration stickers are issued by the Australian Maritime Safety Authority and provide EPIRB owners and marine inspectors with proof of current registration. The sticker will note the HexID/UIN of the beacon, its registration expiry date (two years from date of issue) and boat name or owner's name depending on type of beacon and use. This registration sticker must be affixed to the beacon. A fine may result if a current sticker is not affixed to a beacon during a safetyequipment inspection. For more information – [www.amsa.gov.au](http://www.amsa.gov.au)

**Disposal** Boaties are reminded to dispose of old EPIRBs at Battery World stores around Australia. This is a freeservice. NOTE: Do not dispose of your beacon in general waste as it will end up in landfill.



## Distress flares

All vessels (excluding PWCs) operating beyond smooth water limits must carry orange and red hand flares as part of their safety equipment. Packs of flares contain two orange smoke flares for daytime use and two red flares for use in the dark.

Flares are a way for a boat in trouble to attract the attention of other boats or aircraft in the area. A distress flare should only be used when other methods of alerting others to a problem have failed. First try contacting other boats or shore-based authorities using a marine radio or mobile phone.

Orange smoke flares can be seen in clear conditions at sea level from a distance of up to four kilometres and even further from an aircraft. Red hand flares can be seen at sea level at a distance of up to 10 kilometres.

Always read the instructions and familiarise yourself with them before storing your flares on board. Store the flares in a dry place where they will be readily accessible in an emergency.

**Remember – Flares have a lifespan of three years and must be replaced prior to the expiry date. Obtain a “Don't Expire” sticker from Maritime Safety Queensland as a reminder to replace your flares.**



Red



Orange

## Signalling devices

Signalling devices are compulsory for all boats operating between sunset and sunrise. A torch, fluorescent light, lantern or cyalume stick are all suitable as long as they generate enough light to be seen by other boats and prevent a collision and attract attention.

## Fire fighting equipment

Fire fighting equipment is required to be carried by all vessels over five metres in length. The most efficient piece of fire fighting equipment is a fire extinguisher, however it must be capable of extinguishing a fire quickly and effectively. Remember, fire extinguishers must be serviced at specified intervals.

## Navigation equipment

All boats operating in partially smooth waters and beyond should carry some form of navigation equipment for example, charts or *Beacon to Beacon*, compass or GPS. The *Beacon to Beacon Directory* is recommended for all boats operating in applicable areas.

## Other equipment

### Pumping and bailing

All boats should carry suitable bailing equipment. For boats under five metres, buckets are considered suitable bailing equipment. Boats five metres and over require a bilge pump (See safety equipment table for more details).

### Anchoring

All boats should carry a suitable anchor with a minimum of two metres of chain and a length of line suitable for the depth of water (See safety equipment table for more details).

### Manual propulsion

Boats under six metres in length should carry oars or paddles in case of emergency. If the boat has fittings for rowlocks, carry the correct length oars with rowlocks securely attached. If not, the paddles should be long and of sufficient strength to do the job.

### Drinking water

All boats should carry sufficient drinking water for everyone on board for the duration of the trip.



Areas of Operation - **White** ( Smooth Waters ) - **Sky Blue** ( Partially Smooth Waters ) - **Dark Blue** ( Beyond Smooth and Partially Smooth Waters )

## Safety equipment for recreational boats and personal watercraft (PWC)

All equipment must be in good working order, and not past the expiry date for replacement or service (EPIRB, fire extinguisher, flares and inflatable life jackets).

- Non-registrable boat means recreational boats with an engine or auxiliary under 3kW (4hp). Requirements or recommendations listed also apply to international or interstate boats operating in Queensland.
- Registrable boat means recreational boats with an engine or auxiliary of 3kW or more (over 4hp). Requirements or recommendations listed also apply to international or interstate boats operating in Queensland.
- Tenders do not require registration if operated within 2 nm of the primary boat. Tenders that are not registrable, are not required to carry safety equipment other than a light for signalling. Operators should consider equipping a tender with safety equipment appropriate to the location of operation.
- PWC means personal watercraft for example a jet ski.
- Required means equipment that must be carried. Recommended means equipment that is suggested to be carried to meet the General Safety Obligation.

	Smooth water			Partially smooth waters			Beyond smooth and partially smooth waters		
	non-registrable boat	registrable boat	PWC	non-registrable boat	registrable boat	PWC	non-registrable boat	registrable boat	PWC
<b>EPIRB (406 MHz)</b> Emergency Position Indicating Radio Beacon. When operating more than 2nm from land. Must be registered with AMSA. Registration must be renewed every two years.							required	required	required
EPIRBs must have a printed expiry date and be replaced or serviced by the manufacturer (or authorised service agent) by this date; must comply with Australian Standard AS/NZ 4280.1:2003; and must be registered in the name of the owner/master with the Australian Maritime Safety Authority.									
<b>Signalling device</b> for example a torch, or fluorescent light, or lantern or cyalume stick. Required when operating between sunset and sunrise.	required	required	required	required	required	required	required	required	required
<b>PFDs /life jackets</b> <ul style="list-style-type: none"> <li>• One of the appropriate size for each person (12 months and over) on board, except if a person is wearing an inflatable diver jacket and the vessel is engaged in diving activities.</li> <li>• Children under 12 must wear the PFD when underway in an open boat under 4.8m.</li> <li>• Skiers or people being towed                             <ul style="list-style-type: none"> <li>+ PFD type 2, 3 or wetsuit with inbuilt flotation approved as PFD type 3 in smooth waters</li> <li>+ PFD type 2 in partially smooth waters</li> </ul> </li> </ul>	PFD type 1, 2 or 3 recommended	PFD type 1, 2 or 3 required	PFD type 2 or 3 required	PFD type 1 or 2 recommended	PFD type 1 or 2 required	PFD type 2 required	PFD type 1 recommended	PFD type 1 required	PFD type 2 required
<ul style="list-style-type: none"> <li>• Except in a river, creek or stream, or waters contained within breakwaters or revetments if the boat has positive flotation*, and grab handles, lines or a secure hold for each person onboard.</li> <li>• PFD not required for a registrable tender to a recreational boat if used within 1km of the primary boat and tender has a positive flotation statement * in the approved form.</li> <li>• PFDs must be worn when crossing designated bars in open boats under 4.8m.</li> <li>• PFD not required for a registrable tender to a recreational boat if used within 1km of the primary boat and tender has a positive flotation statement* in the approved form.</li> <li>• PFDs must be worn when crossing designated bars in open boats under 4.8m.</li> <li>• PFD not required for a registrable tender to a recreational boat if used within 500m of the primary boat and tender has a positive flotation statement* in the approved form.</li> </ul>									
* A positive flotation statement is a certificate, in the approved form, from a manufacturer or an accredited marine surveyor. It is not required to be carried on board, but an enforcement agency may ask the owner to provide proof of its existence.									
<b>V sheet</b>				recommended	required		recommended	required	
<b>Flares</b> two red hand flares and two orange smoke flares.				recommended	required		recommended	required	
<b>Fire fighting equipment</b> all boats over 5m. Must be capable of extinguishing a fire quickly and effectively.	recommended	required		recommended	required		recommended	required	
<b>RideSmart sticker</b> must be visible from steering position.			required			required			required
<b>Capacity label</b> except sailing ships. Must be visible from all steering positions.		required	required		required	required		required	required
Capacity label can be either an Australian Builders Plate or a label issued by Maritime Safety Queensland. Not required for international or interstate boats operating in Queensland.									
				recommended	recommended		recommended	recommended	

<b>Navigation</b> Navigation chart and a liquid damped compass appropriate to the operational area, or other directional finding or positioning equipment.									
	<b>Smooth water</b>	<b>Partially smooth waters</b>	<b>Beyond smooth and partially smooth waters</b>		<b>Smooth water</b>	<b>Partially smooth waters</b>	<b>Beyond smooth and partially smooth waters</b>		<b>Smooth water</b>
<b>Anchoring</b> For boats less than 5m, the cable can be chain or rope. For boats over 5m, the cable can be chain of at least 2m attached to anchor and rope. Length of chain/rope should be appropriate for the depth of water you are anchoring in.	recommended	recommended		recommended	recommended		recommended	recommended	
	<ul style="list-style-type: none"> <li>less than 5m, one anchor with 18m cable</li> <li>5-8m, one anchor with 27m cable</li> <li>over 8m, two anchors with 37m cable each</li> </ul>			<ul style="list-style-type: none"> <li>less than 5m, one anchor with 27m cable</li> <li>5-8m, one anchor with 27m cable</li> <li>over 8m, two anchors with 37m cable each</li> </ul>			<ul style="list-style-type: none"> <li>less than 5m, one anchor with 27m cable</li> <li>5-8m, one anchor with 27m cable</li> <li>over 8m, two anchors with 37m cable each</li> </ul>		
<b>Pumping/bailing equipment</b>	recommended	recommended		recommended	recommended		recommended	recommended	
	<ul style="list-style-type: none"> <li>under 5m: suitable bailing equipment</li> <li>5-8m: bilge pump 45L/minute capacity</li> <li>over 8m: bilge pump 70L/minute capacity</li> </ul>			<ul style="list-style-type: none"> <li>under 5m: suitable bailing equipment</li> <li>5-8m: bilge pump 45L/minute capacity</li> <li>over 8m: bilge pump 70L/minute capacity</li> </ul>			<ul style="list-style-type: none"> <li>under 5m: suitable bailing equipment</li> <li>5-8m: bilge pump 45L/minute capacity</li> <li>over 8m: bilge pump 70L/minute capacity</li> </ul>		
<b>Manual propulsion</b> oars or paddles (boats under 6m)	recommended	recommended		recommended	recommended		recommended	recommended	
<b>Drinking water</b> enough for everyone onboard for the trip	recommended	recommended		recommended	recommended		recommended	recommended	

## Personal watercraft

Cruising, wave jumping, surf riding and skiing are just a few fun ways to enjoy your personal watercraft (PWC). Whatever activity you choose, the best way to enjoy your sport is safely. Whether you own or just borrow a PWC, it is vital to understand the safety rules and regulations for a PWC in Queensland. Otherwise you risk getting an 'on-the-spot fine'.

More information about PWC regulations is available from Maritime Safety Queensland's website or contact your local regional office.

### Personal watercraft licensing

It is compulsory for all PWC operators to hold a personal watercraft licence (PWCL). This is a separate licence from the existing recreational marine driver licence (RMDL).

All licence applicants must complete an approved BoatSafe course for personal watercraft operations before being eligible for a licence. A valid recreational marine driver licence is a prerequisite for the PWC licence.

### Personal watercraft registration

All PWC must be registered. Registration symbols must be:

- displayed on both sides
- at least 100mm high
- legible from 30 metres
- clearly visible in contrasting colour to your craft
- easily seen if your craft is underway.

The registration label must be displayed on the port (left) side of your craft, adjacent to the registration symbols.

### Ride Smart sticker

A Ride Smart sticker must be affixed to the PWC and visible to the operator at all times.

## Safety equipment for personal watercraft

### Personal flotation devices (PFDs)

All PWC operators and passengers must wear the correct type of PFD at all times.

- PFD Type 2, 3 or a wetsuit with inbuilt flotation approved as PFD type 3 in smooth water limits.
- PFD Type 2 in partially smooth and offshore water limits.

### Navigation lights

PWCs travelling at night or at times of reduced visibility must show navigation lights – sidelights and either an all round white light or a stern and masthead light.

### EPIRB

If you travel more than two nautical miles offshore, when beyond smooth and partially smooth waters, you must carry a 406 MHz digital EPIRB.

You must register your 406 MHz beacon with the Australian Maritime Safety Authority and display the registration sticker on the beacon. Registration must be renewed every two years. You must also advise AMSA of any changes to ownership and vessel details.

Safety equipment which carries a manufacturer's expiry date must be serviced by the manufacturer or authorised service agent by the expiry date and replaced if necessary.

## Personal watercraft distance and speed

It is important you do not exceed set speed limits for your safety and everyone else using the water. Do not travel at speeds where your wash can cause damage to the shoreline, other boats or injury to others. Consider the density of traffic in the area to determine a safe speed.

When riding a PWC the following distances must be adhered to; or reduce speed to 6 knots (approx 11km/hr) within 60 metres from:

- people in the water
- from anchored or moored boats, boat ramps, jetties or pontoons
- the shore
- boundary of bathing reserve.

Exceptions apply to '6 knots within 60 metres' from the shore under the following conditions:

- the waterway is less than 120 metres wide and
- the PWC operator is operating the jet ski in as close as practicable to a straight line to transit the area
- the PWC operator stays as close as is practicable to the centre of the waterway or a market channel
- the PWC is being used in waterskiing/towing. In coastal waters, freestyling or wave jumping is restricted to:
  - outside 200 metres of the shore if dwellings are within 100 metres of the shore line, and are in the vicinity of the waters where PWC is operating. Coastal waters do not include dams and inland waters.

## Noosa River Marine Zone

New rules apply

Restrictions apply for certain water-based activities on the Noosa River as part of the new Noosa River Marine Zone.

The most significant changes apply to personal watercraft (PWC) activities, waterskiing, freestyling, hovercraft and airboats.

Marine zones are about better managing our waterways at a local level to balance the needs of maritime users with local community concerns about amenity.

Before heading out, it is a good idea to check what restrictions are in place. All marine zones are outlined on the MSQ website.

For more information on the Noosa River Marine Zone visit [www.sunshinecoast.qld.gov.au](http://www.sunshinecoast.qld.gov.au).

## Water Limits

Because Queensland's waterways are so diverse there are designated water limits affecting the types of regulated safety equipment required. There are three types of limits:

- **smooth waters** include rivers, creeks, streams and lakes, waters within breakwaters or revetments and within half a nautical mile from land within partially smooth limits and other waters specified in legislation
- **partially smooth waters** are determined by Maritime Safety Queensland and are specified in legislation
- **open waters** are areas beyond these limits.

A complete list of maps showing these areas follows.

## Safe operation

It is the responsibility of every boat owner and skipper to operate the boat under their control in a safe manner. Operating safely combines the following:

- the boat is safe to operate
- crew and passengers are safe
- the right equipment is on board and can be used
- crew and passengers know what to do in an emergency
- the skipper is competent in operating the boat
- rules are followed so that other boaters are not injured by unsafe practices.

There are a range of rules that you must know as a boat owner or operator. Collisions make up the majority of reported boating accidents. Most of these could have been avoided through skippers being alert and aware.

Driving a boat is very different to driving a car. Being alert to what is happening around you is paramount for safety. Do not become complacent because of the perception of open water. Often narrow channels restrict boats to pass close to one another, and between beacons and shallow banks. There is plenty to hit when driving a boat.

## Driver safety

Most boats have a fixed throttle system. This means the driver can set the throttle for a specific speed and the engine will maintain revolutions until the throttle is altered unlike a motor vehicle which has a spring operated foot accelerator.

With a fixed throttle system, if the driver leaves or is thrown from the driving position, the vessel will maintain speed until the throttle is altered to reduce speed. It is strongly recommended that the drivers of all boats, but especially tiller steered boats, have a throttle lanyard attached to their wrist which will stop the motor instantly if the driver loses control of the boat.

There have been fatalities when the driver has been dislodged and fallen overboard in rough conditions or in the event of hitting an object or vessel wash. This may cause the boat to continue its course or turn in circles. This is an extremely dangerous situation for other boats in the area and the person in the water.

**Ensure you wear a throttle lanyard connected to the stop motor switch at all times when under way.**

## Collision rules

The 'International Regulations for Preventing Collisions at Sea' (Colregs) are the traffic laws of the sea. They give clear indication about passing, approaching, giving way and overtaking to avoid collisions with other boats. They apply equally to all boats afloat. All boat operators must thoroughly understand and apply the rules in all situations.

Collisions are the most common accident reported in boats. Boat operators must do whatever is necessary to avoid a collision.

Actions must be clear and deliberate so other skippers can see your intentions. Never assume the operator of another boat will observe the rules; always be prepared to take action to avoid a collision.

Significant penalties apply for failure to observe these rules.

### Keep a proper lookout

A proper lookout, through sight and sound, must be kept at all times. Be aware of other boats, especially in bad weather, restricted visibility and in darkness.

### Assess risk of collision and take action

Use all means available to assess whether other boats pose a risk of collision. One early indicator is to see whether the bearing of a closing boat is virtually steady (bearing unchanged, range closing). If it is, a risk of collision exists and early positive action (changing course and/or speed) must be taken to eliminate the risk.

### Speeding

All boats must travel at a safe speed at which you can act to avoid a collision and can stop the boat in time to avoid any danger that arises suddenly. Wash created by speed must not cause any damage to the shoreline.

When navigating a boat you must consider:

- **Visibility:** Drive slowly in rain, fog, mist, smoke and glare. Take special care when travelling at night as potential hazards are harder to see.
- **Other boats:** Slow down in busy areas and when near moored or anchored boats, and remember working boats and larger ships may have difficulty manoeuvring.
- **Navigation hazards:** Slow down in shallow areas and when boating in unfamiliar water. Water depth can vary and change quickly, particularly in freshwater.
- **Wind, waves:** These may affect the boat's performance and stability. In rough conditions, slow down to reduce impact on the hull and avoid travelling beam on to the waves.

**The skipper must travel less than six knots if the vessel is causing excessive wash.**

### Channels

When navigating in narrow channels, all boats should travel on the starboard side or right hand side of the channel and pass oncoming boats on the port side.

If plenty of distance separates two passing boats, there's no need to deliberately alter course to pass to the right of the other boat. The rule is simply there to remove doubt in the event of a close situation.

Avoid anchoring in channels, especially near markers.

Small boats (including sailing boats) should keep clear of large boats that have limited room to manoeuvre in channels.

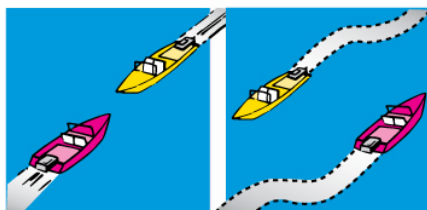
### Giving way

#### Power boats

**Golden rule:** 'look all around, give way to the right, turn to the right and stay to the right'.

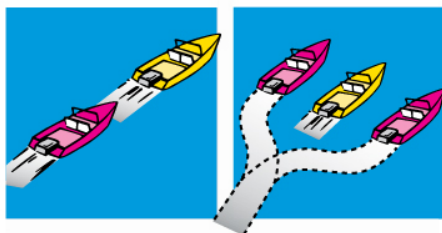
#### Head on

When meeting head on, both boats are required to alter course to starboard (right), never to port (left). Any turn should be large enough to be obvious to the other boat.



### Overtaking

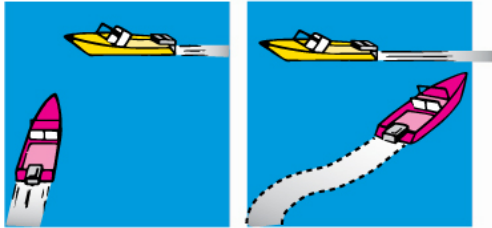
If you are overtaking a boat, you can do so to either side of the boat you wish to pass. However, you must keep well clear of the boat you are overtaking. This applies to both sail and powerboats. In narrow channels you must be particularly careful when overtaking. In all instances, make sure you do not cut in front of the boat you have overtaken.



### Crossing

When two boats are crossing, the boat on your right has right of way; you should keep clear, alter course or slow down to pass astern of the other boat.

If you have the right of way, be predictable – keep your course and speed. If the other boat does not give way, the boat with the right of way must take action to avoid a collision.



## Sailing boats

### Wind on different side

When each sailing boat has the wind on a different side, the boat with wind on the port side shall keep out of the way of the other.

If sailing a boat with the wind on the port side and you see a sailing boat to windward and cannot determine with certainty whether the boat has the wind on the port or starboard side, take action to keep clear.

### Wind on the same side

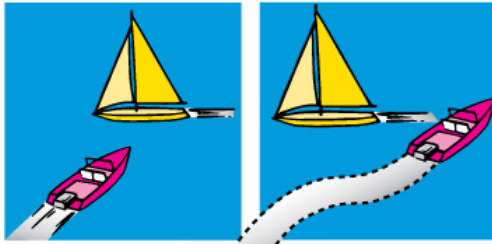
When both sailing boats have the wind on the same side, the boat to windward shall keep out of the way of the boat to leeward.

**Note:** The windward side is the side opposite to that on which the mainsail is carried or, in the case of a square-rigged boat, the side opposite to that on which the largest fore and aft sail is carried.

### Power and sail

A power boat generally gives way to sail unless the sailing boat is in the process of overtaking it.

However, don't expect large, less manoeuvrable boats under power to give way. All small craft should give large boats a wide berth.



## Sound signals

Most recreational boats do not use sound signals. However, they are used by ships and larger vessels. Boats over 12 metres should carry sound signals, a whistle and a bell. Vessels under 12 metres should have some means of making an efficient sound signal. You should be aware of signals and what action you should take when you hear a signal. Sound signals may be accompanied by light signals.

All boats should use sound signals in restricted visibility to alert others of their position. Use common sense and slow your boat or stop, and be ready to take immediate action. Be extremely cautious when operating in restricted visibility.

### One short blast means

'I am altering my course to starboard'.

### Two short blasts mean

'I am altering my course to port'.

### Three short blasts mean

'I am operating engines astern'  
(the boat may be reversing or stopping).

### Five (or more) short blasts mean

'I am unsure of your intentions'.

## Navigation lights

### Are your navigation lights fitted correctly?

Some boats carry navigation lights that are fitted incorrectly. It is important that lights are fitted according to the collision regulations so that other boats can determine what type of boat you are and the course you are on.

A common mistake is the fitting of the red and green sidelights on the same angle of the curve of the bow of the boat. This results in the angles of light crossing over each other when seen from head on. This also affects the side view.

Side lights must be kept parallel to the centreline of the boat.

- By law, boats operating from sunset to sunrise, whether at anchor or under way, must display the correct lighting. A boat is 'under way' when it is not at anchor, made fast to shore or aground (this includes drifting).
- Navigation lights must also be used in daylight hours during periods of restricted visibility or in other circumstances when it is deemed necessary.
- Lights must be placed and displayed appropriate to the size and class of your boat. These lights tell other boat operators about the boat and what it is doing – whether it is at anchor, under sail or motoring.
- Navigation lights must be positioned so they are not obscured by the boat's superstructure or interfered with by the deck lights. They should be fitted by the manufacturer or an authorised person.
- The masthead and/or all-round white light must be fitted (if practical) on the centre line (bow to stern) of the boat and positioned a minimum of one metre above the side lights. When operating at night, carry replacement bulbs.

## Minimum required lights

### Boats under way

#### Power boats

- Less than 7 metres in length with a maximum speed not exceeding 7 knots – a white light visible all round and, if possible, separate or combined sidelights.
- Less than 12 metres in length:
  - separate or combined sidelights, a masthead light and a stern light or
  - separate or combined sidelights, an all-round white.



#### **Sailing boats**

- Less than 7 metres in length – the lights required for sailing boats over 7 metres in length. If not, a torch or lantern showing a white light ready to display to avoid a collision.
- More than 7 metres in length and less than 20 metres in length:
  - a) combined lantern at or near the top of the mast that incorporates sidelights and stern light or
  - b) separate sidelights and stern light.

#### **Non-powered boats**

**On the Brisbane River, rowing sculls are required to display a flashing all-round white light while training or in competition, between sunset and sunrise.**

#### **Boats at anchor**

Boats at anchor must show an all-round white light placed where it may best be seen.

Anchor lights must always be shown from sunset to sunrise. If you are at anchor or in a busy area, then show additional lights (not navigation lights) to ensure you are seen, and keep a good watch.

The collision regulations require an anchor light be visible for two nautical miles for all vessels up to 50 metres long.

#### **Lights on boats to keep clear of**

There are many other combinations of lights used on boats. The lights shown relate to the activity it is engaged in (for example fishing, dredging, not under command).

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 boats on buoy moorings in recognised mooring areas, 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 (except certain moored boats in approved mooring areas) 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 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.

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).

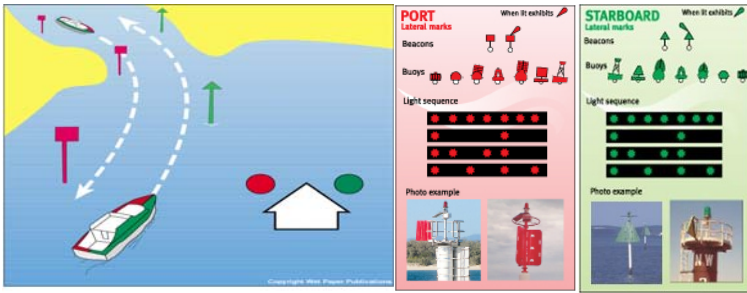
When both a port and starboard mark are placed near to each other, travel directly between them.

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)

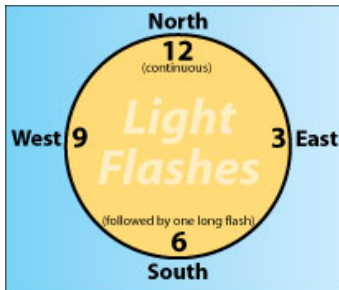
**Local direction of buoyage**

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

**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.

**Diagrams**



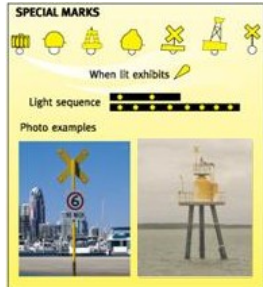
To remember the light flash rates for cardinal marks, the number of flashes for east, south and west agrees with a clock face. A north mark has a continuous flashing light.

**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.

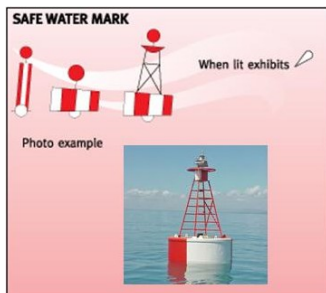
At night the light is yellow and the rhythm may be any other than those used for the white lights of a cardinal, isolated danger and safe water marks.

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



**Safe water marks**

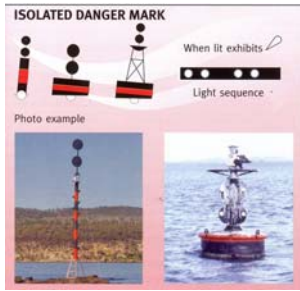
Indicates that there is navigable water all around the mark – for example, mid channel.



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



### 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 below) 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 that GPS users undertake navigation and GPS courses currently offered by both Volunteer Marine Rescue (VMR) and the Australian Volunteer Coast Guard.

## 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 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. In a few locations local customs and conditions may dictate the direction of travel. Always check before skiing.

#### Skiing or towing on a personal water craft

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 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. It is legal for the boat tending the diver to operate within the 30 metres. Breach of this regulation can incur a penalty.

#### 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 observer and skiers should agree to signals beforehand.

In fresh water you are required to carry the same safety equipment as specified for smooth water.

## ASSESSMENT QUESTIONS.

**Q1 Which boats must be registered in Queensland.**

- a All Boats
- b All boats with a motor exceeding 4hp (3kw).

**Q2 In Queensland when is a Recreational Marine Drivers Licence required**

- a When operating a boat with an engine exceeding 6 hp (4.5 kw)
- b When operating a boat with an engine exceeding 4 hp (3kw)

**Q3 What is the legal blood alcohol limit whilst operating a boat.**

- a 0.00
- b 0.05

**Q4 As a boat operator you have a GENERAL SAFETY OBLIGATION.**

- a To ensure your boat is safe, properly equipped, crewed and operated in a safe manner.
- b To ensure you have enough food and water for your trip.

**Q5 If an Australian Builders Plate is not visible to the operator, where on your boat would you display the capacity label.**

- a Near the boats controls where it can be best seen by the operator.
- b On the port side.

**Q6 What safety equipment is required to be carried by a boat less than 5 metres in length operating in smooth waters.**

- a PFD 1-2-3 for each person on board, signalling device when operating between sunset and

sunrise. RECOMMENDED ; anchor , drinking water ,manual propulsion ,pumping or bailing equipment.

b V sheet , flares , EPIRB .

Q7 What does EPIRB stand for and when do you need to carry one.

a Electronic position indicating radio beacon ,carried at all times

b Emergency position indicating radio beacon ,carried when operating more than 2 nm from the shoreline.

Q8 What side of the channel should a boat navigate on.

a Starboard

b Port

Q9 A proper lookout must be maintained at all times by sight, hearing and all available

Means

a By all boats.

b Only commercial boats.

Q10 A boat is crossing your bow from the starboard side,what action should you take.

a Give way.

b Increase speed.

Q11 You are overtaking a slower vessel, what action should you take.

a Overtake either side and maintain speed until well past and clear.

b Overtake on the starboard side only.

Q12 What navigation lights must be displayed on a recreational vessel under 12 metres in

length , making way between sunset and sunrise or in restricted visibility.

**a** Red – Port visible from 112.5 degrees ; Green – Starboard visible from 112.5 degrees

and an all round white or clear light.

**b** Red – Starboard visible from 112.5 degrees ; Green – Port visible from 112.5 degrees

And an all round white or clear light.

**Q13** What is the speed limit in smooth waters in Queensland.

**a** 40 knots which equates to 73 kilometres an hour.(exemptions apply in some areas, refer

MSQ website).

**b** There is no speed limit in smooth waters.

**Q14** When operating your boat you are required to slow to 6kts (no wash) within 30 metres of

pontoons – persons in water – anchored boats – moored boats or boats made fast to the

shore or aground – jetties – wharves and boat ramps.

**a** True

**b** False

**Q15** You are entering a Port or Harbour and see a red or port hand lateral marker, which side of

the boat do you keep this marker on.

**a** On your port side (port to port entering port) or with bouyage.

**b** On your starboard side or against bouyage.

**Q16** You observe an international code flag A (white with blue to the fly) what is this indicating.

**a** A shipwreck steer clear.

**b** A diver below steer 30 metres away.

**Q17** There are four cardinal markers – North – South – East – West – what do they indicate.

- a The direction of navigable waters.
- b An obstruction is to the direction of the marker.

**Q18** An isolated danger mark has black and red bands with two black balls on top and two flashing lights at night.

- a It signifies an underwater obstruction below steer well clear of this mark.
- b It signifies a diver down steer to thirty metres.

**Q19** A special marker is yellow and sometimes has a yellow cross on top, what is the meaning of this mark.

- a Danger steer well clear.
- b Something special consult your navigation chart or beacon to define.

**Q20** What is the duty of a water skiing observer, and the minimum age of the observer.

- a To relay the actions of the skier to the boat driver, minimum age twelve years.
- b To look for oncoming traffic and speed signs, minimum age sixteen years.

## **Answers to Sample Assessment Questions**

1b,2a,3b,4a,5a,6a,7b,8a,9a,10a, 11a,12a,13a,14a,15a,16b,17a,18a,19b,20a