Safety on the water

KNOW THE RULES

All masters must be aware of the International Regulations for Preventing Collisions at Sea which are adopted in NSW and modified through the *Marine Safety Regulation 2016* and available on the Roads and Maritime website at **rms.nsw.gov.au/maritime**. A summary of these rules is given in this section.

SAFE SPEED

All vessels must travel at a safe speed at all times.

A safe speed cannot be expressed as a maximum or minimum number of knots because it varies with circumstances and conditions. The master (skipper) must continually assess the safety of the vessel's speed.

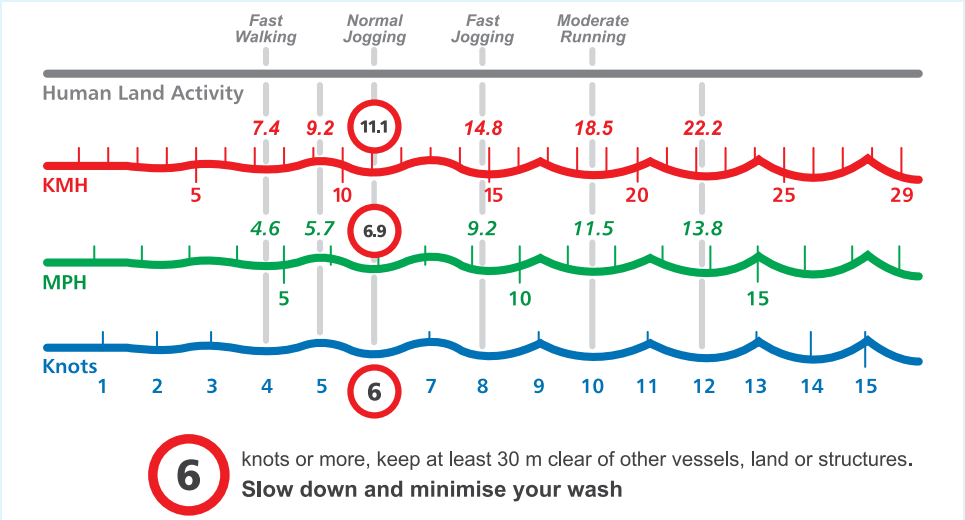
A safe speed is one at which the vessel can be stopped in time to avoid any danger which arises suddenly. In judging a safe speed the master must consider a number of issues including:

- **Visibility** – Drive slowly in rain, fog, mist, smoke or glare
- **Night** – Special caution is required between sunset and sunrise because many potential hazards may not be lit or may not be easily seen. Background shore lighting may confuse you
- **Other vessels** – Slow down on busy waterways and when near moored or anchored vessels, working vessels showing special signals and large vessels which have difficulties in manoeuvring
- **Navigation hazards** – Slow down in shallow areas or in unfamiliar waterways. Water depth can vary and change frequently. Not all hazards may be marked or lit and signs, buoys, marks or lights may have shifted or been vandalised
- **Wind, waves and currents** – May adversely affect the manoeuvrability of a vessel
- **Manoeuvrability of the vessel** – Stopping and turning ability depends on the speed travelled, wind and current and the boat's design, such as hull shape, engine and propeller type and number.

If your vessel does not have a speedometer, you must be able to determine if you are exceeding a local speed limit. For example, if your boat is planing in a restricted speed zone it is likely that you are exceeding the speed limit, so slow down.

WASH

Wash refers to the waves and turbulence created by a boat as it moves through the water. The size of a boat's wash and the effects it might have depend on how the boat is driven, its hull shape and how much load it is carrying.



PROPER LOOKOUT

The master is responsible at all times for keeping a lookout for dangers. A good lookout must be kept by sight and hearing.

The master must be fully aware of the boating environment, especially in bad weather, restricted visibility or darkness. Don't forget to look all around, even behind you.

Special care should be taken when operating your boat in areas where high speed vessels operate, such as Sydney Harbour. The situation can become dangerous very quickly due to rapid closing speeds, even if your vessel is travelling slowly.

For example a vessel going at 20 knots will cover more than 100 metres in less than 10 seconds and the speed of your boat may further decrease your time to react to avoid a collision.

Don't confuse the lookout duties of the master with those of the observer when the boat is towing a person on skis, tubes etc.

See page 82 for information on towing responsibilities.

BOW RIDING IS ILLEGAL

Bow riding means:

- Extending any part of your body outside the perimeter of a power-driven vessel that is making way, or
- Being on the bow in a position that increases the risk of falling overboard.

IMPORTANT NOTE

The offence relating to bow riding applies to both the operator of the vessel and the offending person. Fines apply.

'Bow riding' on a moving powerboat includes being on the bow in a position increasing the risk of falling overboard, or sitting or leaning out over any edge of the vessel.

GIVING WAY

The master must continuously assess the risk of collision with other vessels. Power vessels must give way to:

- Sailing vessels
- Vessels approaching head on, by altering course to starboard
- Vessels approaching from the right (starboard) hand side, ie crossing
- Vessels displaying the special lights and signals shown in this chapter
- Large vessels restricted in their manoeuvrability
- Any vessel being overtaken
- Vessels engaged in fishing activities and showing appropriate signals.

A vessel drifting is deemed to be underway and has no special right of way. It is required to comply with the International Regulations for Preventing Collisions at Sea.

Do not create a dangerous situation by forcing your right of way. Always keep a safe distance from other vessels so the vessel can be stopped or manoeuvred to avoid any sudden danger.

The faster the speed, the greater the safe distance must be.

When altering course make your intentions clear to others as early as possible.

IMPORTANT NOTE

In a collision, all masters involved can be held responsible even if the give-way vessel does not give way, because all masters are required to exercise caution and take avoiding action if the other vessel does not.

SOUND SIGNALS

Special sound signals exist for powered vessels to indicate their manoeuvring intentions when they are in sight of one another.

1 short blast
I am altering course to starboard (the right).

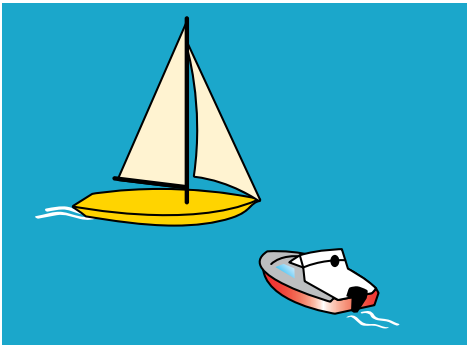
2 short blasts
I am altering course to port (the left).

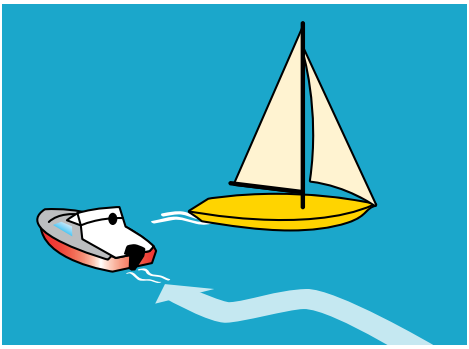
3 short blasts
I am operating engines astern (stopping/slowing or reversing).

5 short blasts
I am unsure of your intentions and I doubt whether you are taking sufficient action to avoid collision.

POWER GIVES WAY TO SAIL

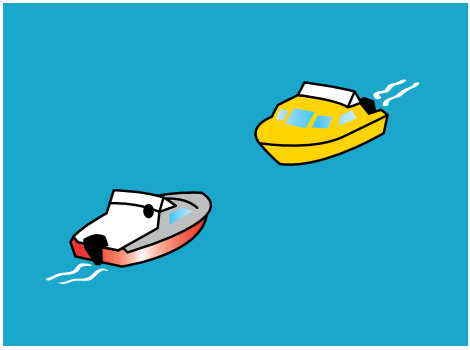
A power driven vessel must give way to a sailing vessel unless the sailing vessel is in the process of overtaking it.

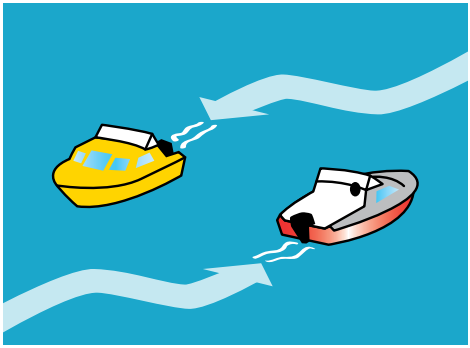




POWER DRIVEN VESSELS MEETING HEAD ON

When two power driven vessels meet head on, each must alter course to starboard (to the right) and pass at a safe distance.





ACTION TO AVOID COLLISION

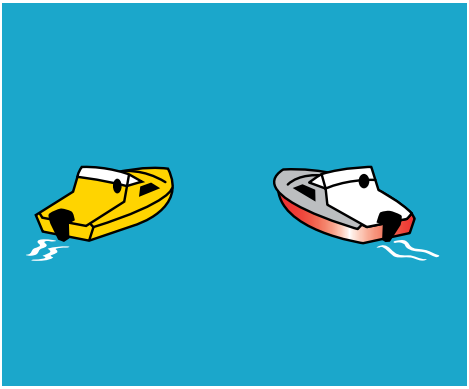
The give-way vessel must avoid a collision by changing course substantially, by slowing down, or stopping and allowing the vessel which has right of way to pass clear ahead. This must be done as early as possible.

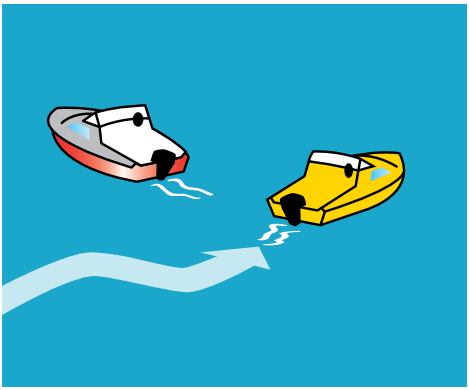
IMPORTANT NOTE

The master of the vessel which has right of way must maintain a lookout, maintain course and speed and be prepared to take action to avoid a collision if necessary.

POWER DRIVEN VESSELS CROSSING

In crossing situations, give way to the right.





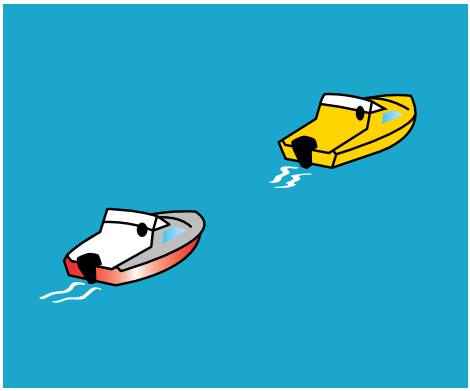
VESSELS OVERTAKING

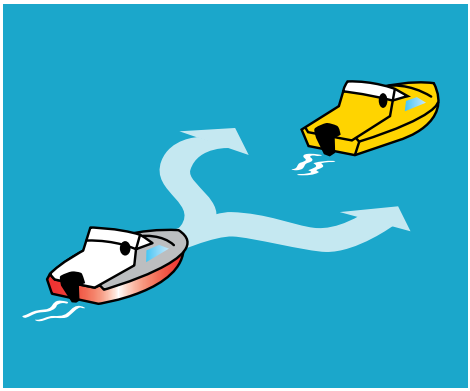
Any vessel (including a sailing boat) which is overtaking another vessel must keep well clear of the vessel being overtaken.

You can overtake another vessel on either side but only when it is safe and you must stay well clear.

In narrow channels you must be particularly careful when overtaking.

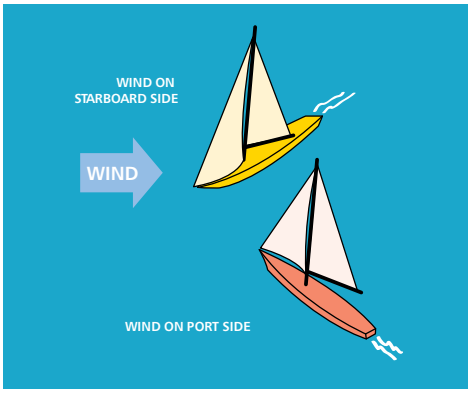
In all instances, make sure you do not cut in front of the vessel you have overtaken.

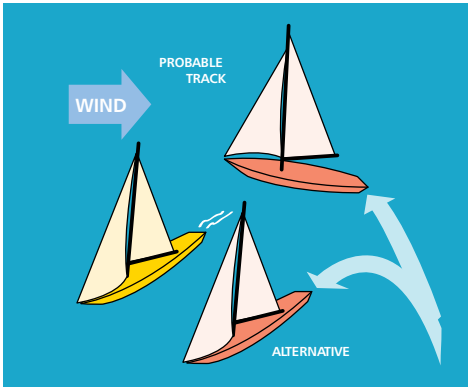




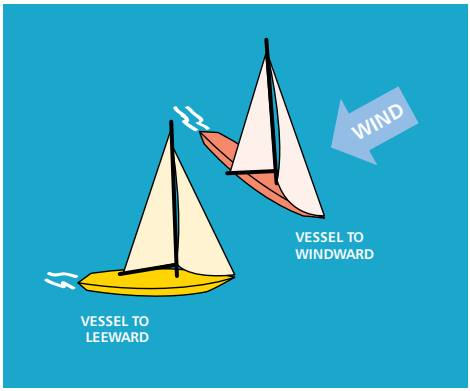
SAILING VESSELS AND SAILBOARDS

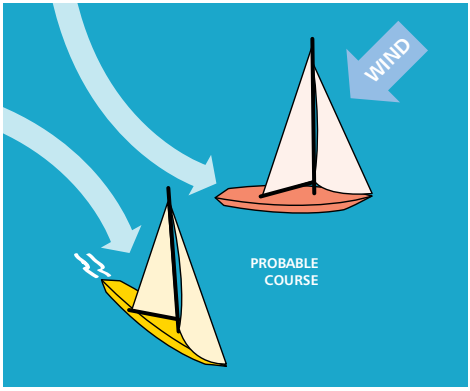
When two sailing vessels have wind on different sides, the vessel with wind on the port side gives way. In the following scenarios, the red vessel gives way.





When both craft have wind on the same side, the vessel which is to windward shall keep out of the way of the vessel which is to leeward.





IMPORTANT NOTE

If a collision appears inevitable, the skipper of each vessel must take proper action to avoid the collision.

SAFE DISTANCE AND SPEED

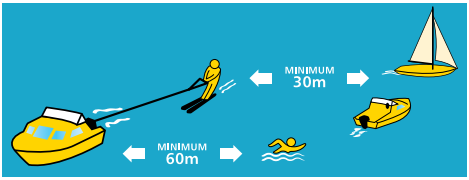
A **safe distance and speed** between a vessel and a person or thing (including another vessel) is a distance and speed that will ensure that the vessel will not cause danger or injury to the person or damage to the thing, having regard to all relevant safety factors including weather conditions at the time, visibility, speed of the vessel and obstructions to navigation that are present.

Changes have been made to the safe distance requirements (also known as 'distance off') from July 2016 by the introduction of the *Marine Safety Regulation 2016*. The revised rules are explained below.

When driving any vessel (including when towing a person or people) you must keep the vessel, any towing equipment and anyone being towed, a minimum distance of:

- **60 metres** from people in the water or if that is not possible, a safe distance and speed
- **60 metres** from a dive flag on the surface of the water or if that is not possible, a safe distance and speed.

Exceptions are when you are supporting swimmers or divers in the water; or your vessel is human-powered, eg a canoe, kayak, surf ski or rowboat; or it is a sailing vessel under 5.5 metres long without an auxiliary engine; or you are launching or removing it from the water taking care to avoid injuring people or damaging property.



When driving a power-driven vessel at a speed of six knots or more (including when towing a person or people) you must keep the vessel, any towing equipment and anyone being towed, a minimum distance of:

- **30 metres** from any other vessel, land, structures (including jetties, bridges and navigation markers), moored or anchored vessels, or if that it is not possible, a safe distance and safe speed.

Parasailing vessels, any towing equipment and anyone being towed, must maintain a distance of at least **200 metres** from any other vessel, bridge, cable, wire, pipeline or structure.

DESIGNATED SWIMMING AREAS

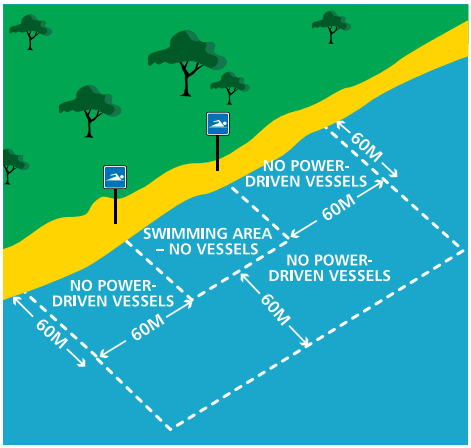
Vessels must not be operated in a swimming area, unless permitted to do so by signage.

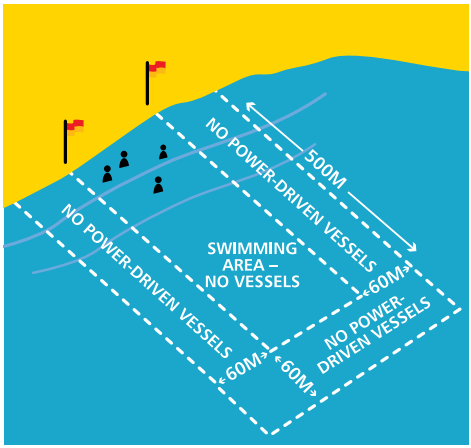
A designated swimming area in a surf zone is defined as the area extending 500 metres out from shore between surf patrol flags or signs.

In all other areas a swimming area is defined as the area extending 60 metres out from shore between signs for swimmers.

Power-driven vessels must not be operated within 60 metres of a swimming area and the flags or signs marking such zones, unless they are a vessel operated by Surf Life Saving NSW or Council lifeguards or unless permitted to do so by a sign.

Remember the same rules apply for PWC as other vessels operating near surf zones/ swimming areas.





All vessels must stay outside swimming areas and power-driven vessels must not come within 60 metres, unless permitted by signage.

MOORING AREAS

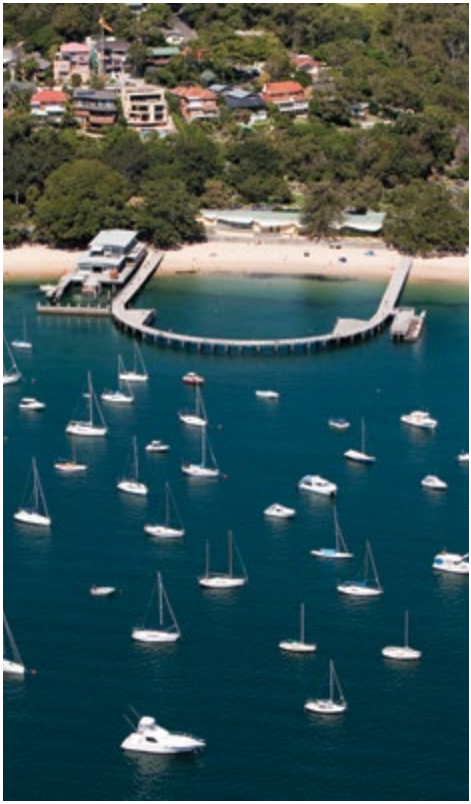
On many waterways in NSW, areas are set aside for the mooring of vessels. These vessels are not required to be lit at night and the masters of other vessels must be aware of the location of such moorings.

Check local maps or charts, or contact your local Roads and Maritime centre for details of mooring areas.

REMEMBER

When navigating near, in or through a mooring area:

- Drive slowly and keep wash to a minimum
- Keep a lookout for people in the water, small dinghies, and trailing ropes
- When travelling at 6 knots or more in a power-driven vessel, you must stay at least 30 metres from any moored vessel.



Special rules apply when navigating through and near mooring areas.

DIVING ACTIVITIES

Always keep a good lookout for people in the water, including divers, snorkellers, spearfishers and swimmers. Keep an eye out for the 'Alpha' flag, which means divers, snorkellers or spearfishers are in the water nearby.

Divers may be present in a variety of areas: Headlands, rocky reefs, bomboras and sheltered coves. Check your local boating map for likely areas before going out on the water.

Navigate with caution whenever within 200 metres of the shore where divers may be present. Be particularly careful when visibility is poor, such as in fog, glare, low light and surface chop.

The blue and white Alpha flag must be displayed whenever divers, spearfishers or snorkellers are operating from the vessel. It should measure at least 40 centimetres x 40 centimetres in size, be rigid, and be flown in a vertical position at least one metre above the vessel's superstructure and visible through 360 degrees. In addition, it is a good idea to attach a high visibility fluorescent yellow/green flag to draw attention to the Alpha flag, whether it is displayed from a vessel, buoy or personal float.

Alternatively the Alpha flag can be flown off a nearby float/buoy, in which case it must be at least two metres above the water level. It is also strongly recommended that a personal float and an Alpha flag be towed by snorkellers or spearfishers who venture more than 60 metres away from their vessel or who are operating from shore. For even greater visibility, it is a good idea to use a float that displays the high visibility colours.

If you see any Alpha flags, brightly coloured flags or brightly coloured floats, slow down and keep well clear. Remember, you must stay at least 60 metres away from anyone in the water, or a safe distance and speed if that is not practicable.

Divers can be up to 100 metres from their float/ flag. You must stay at least 60 metres away from anyone in the water.

Fluorescent floats and/or flags are recommended to draw attention to the Alpha flag.

If you suddenly find yourself close to divers' flags and/or floats, cut the engine immediately, look around and match people to floats before slowly motoring clear. Remember that spearfishers may be up to 100 metres from their float and flag.

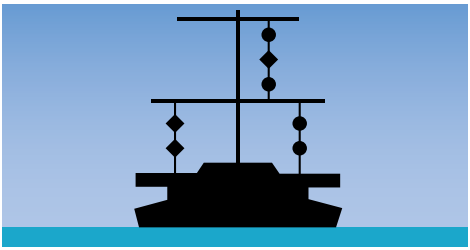
Avoid passing between a diving vessel and the shore, pass well clear to the seaward side. Be aware that spearfishing and snorkelling vessels are not always at anchor, and often move about picking up and dropping off divers.

If picking up or dropping off snorkellers or divers, always be prop aware. For more information on propeller strikes, see page 92. Preferably switch off the engine first and always choose a safe position well clear of rocks or breaking waves so you don't have to rush.

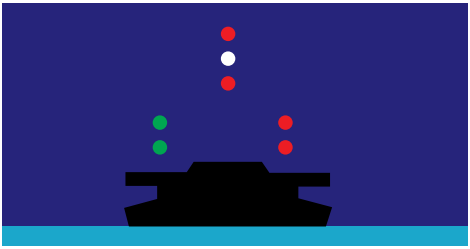
The blue and white 'Alpha' flag means divers, snorkellers or spearfishers are in the water nearby.

DREDGES

When driving your vessel you must not create wash that may damage or unreasonably impact on a dredge or work barge.



Safe side to pass (Diamonds) **Obstruction this side (Balls)**

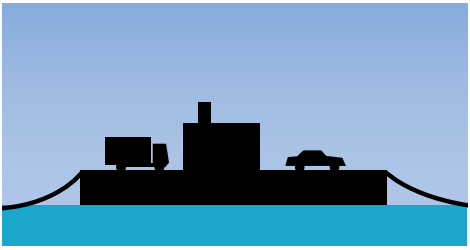


Safe side to pass (Green – Go) **Obstruction this side (Red – Danger)**

VEHICULAR FERRIES

In some areas vehicular ferries drag themselves across channels using wires or chains. Because these wires/chains are often below the water you may not see the danger.

You must slow down to four knots or less when within 100 metres of the wires or chains of a vehicular ferry when it is underway and disengage power when crossing the wires or chains.



Always pass astern of the ferry. Preferably wait until it has reached the shore to avoid becoming entangled in the wires.

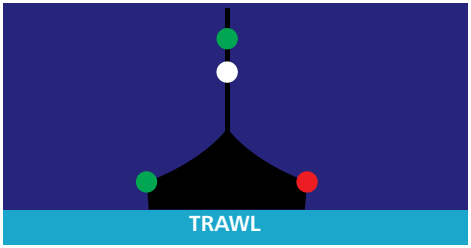
A vehicular ferry underway will display an all-round flashing light. You should give way, as it is significantly restricted in its ability to manoeuvre.

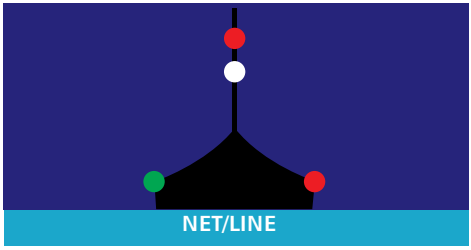
COMMERCIAL FISHING VESSELS

Licensed fishing vessels (LFB) display special shapes and lights when their manoeuvrability is restricted by their fishing apparatus.

You should keep clear of these vessels when you see such shapes or lights or notice they are working with nets and lines.

Contact your local NSW Department of Primary Industries (NSW DPI) Fisheries office for more details about the rights of commercial fishing vessels.





NAVIGATION MARKS AND SIGNS

A system of buoys, poles and lights is used to assist safe navigation. Each type of mark has a unique combination of colour, shape, topmark and light. You must be able to identify these marks and pass them safely on the correct side.

An interactive guide to safe navigation, including marks and signs as well as vessel lights, is available online at **rms.nsw.gov.au/maritime**.

LATERAL MARKS

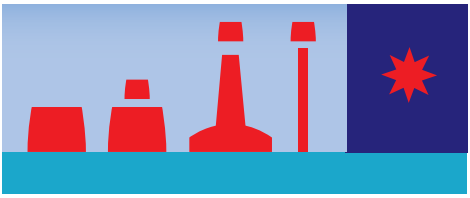
Port and starboard marks are referred to as lateral marks.

Port hand markers

Port markers are red and have a can shaped topmark or buoy.

If lit, a port hand mark shows a flashing red light.

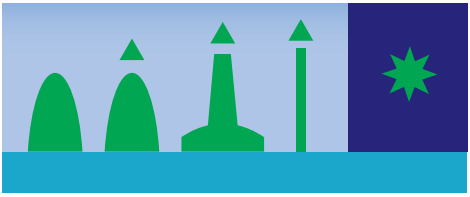
Port markers may be any of the shapes shown below.



Starboard hand markers

Starboard markers are green and have a cone shaped topmark or buoy. If lit, a starboard hand mark shows a flashing green light.

Starboard markers may be any of the shapes shown below.



IMPORTANT NOTE

When port and starboard marks are placed near each other, you travel between the two.

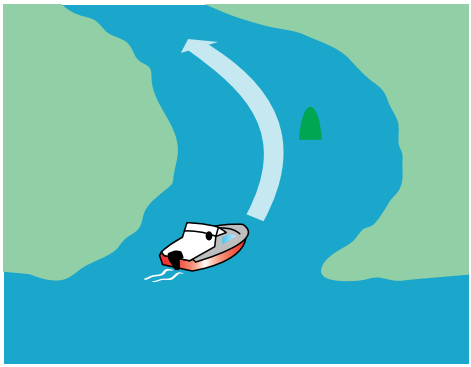
Single lateral marks

Often lateral marks are not placed in pairs, so you will need to decide on the safe side to pass.

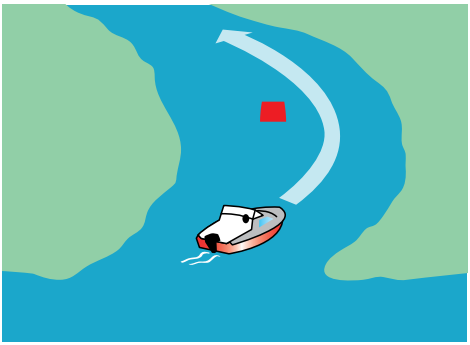
The safe side to pass a lateral navigation marker is determined by your direction of travel to or from the sea.

IMPORTANT NOTE

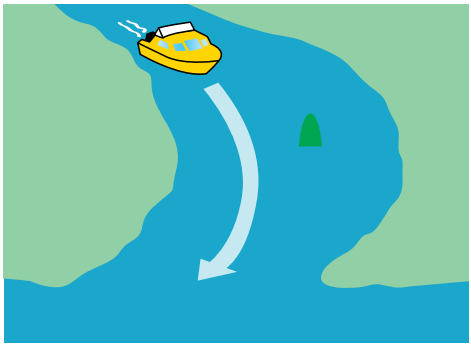
Heading upstream means in a direction away from the sea. Heading downstream means in a direction towards the sea.



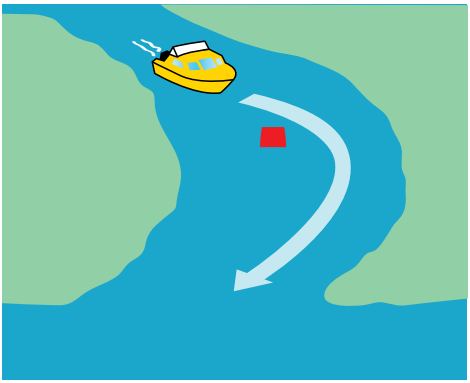
Keep **green** (starboard hand marks) on your **right hand side** (to starboard) when going upstream.



Keep **red** (port hand marks) on your **left hand side** (to port) when going upstream.



Keep **green** (starboard hand marks) on your **left hand side** (to port) when going downstream.



Keep **red** (port hand marks) on your **right hand side** (to starboard) when going downstream.

✓ **GREEN** to **GREEN** when going upstream

✓ **GREEN** to **RED** when seas are ahead

CHANNELS AND RIVERS

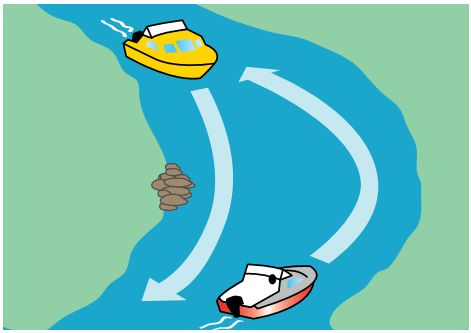
In NSW, the term 'channel' means an area of navigable waters that, whether or not indicated by navigation marks, provides a passage for vessels. This means that the term channel extends to bays and sounds as well as the more traditional marked channels, fairways, passages and rivers. Generally speaking, best practice is to keep to starboard (right hand side) in all waterways. However, in narrow channels a vessel **must** keep to starboard.

When driving a boat on rivers and estuaries, extreme caution should be exercised because not all shallow areas and navigation hazards may be marked and shallow areas may shift.

Be careful at bends. Keep a good lookout for boats coming the opposite way. Do not cut corners.

In channels or narrow stretches of water all regulations for avoiding collision apply. Remember:

- Keep to the starboard side (right-hand side) of the channel
- Do not get in the way of larger vessels operating in the channel and watch for unexpected alterations of course as they try to follow the deepest water route
- Do not anchor or fish in channels where you may obstruct other vessels.

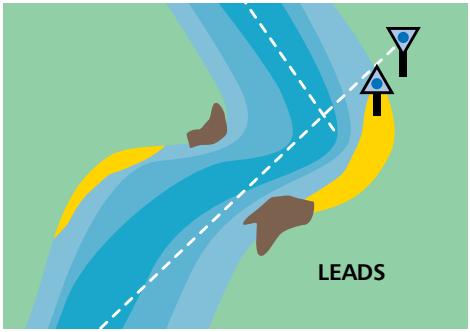


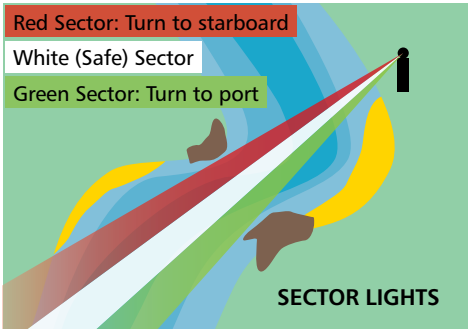
LEADS AND SECTOR LIGHTS

Leads are often used to guide vessels into a port or through sections of a waterway. By moving your vessel to a position so that both leads are lined up, the course should be a safe one.

At night, major leads are lit. Move your vessel to ensure that the lights are vertically above each other. All leads are shown on maps and charts, so it is essential to consult your chart for relevant leads and other navigation aids before entering unfamiliar waters.

The leads at major ports are usually highly visible blue triangular or vertical lights mounted on bright orange or red triangular boards.





Sector lights vary from port to port and a chart should be referred to before using them. Where sector lights mark the entrance to a port, be aware that the white sector is the shipping channel. Do not impede the passage of seagoing ships. See page 78 for more information on large vessels.

CARDINAL MARKS

Cardinal marks are used to indicate that deeper water lies in a compass direction away from a danger such as a reef, shallow areas, etc. They are painted in combinations of yellow and black as shown.

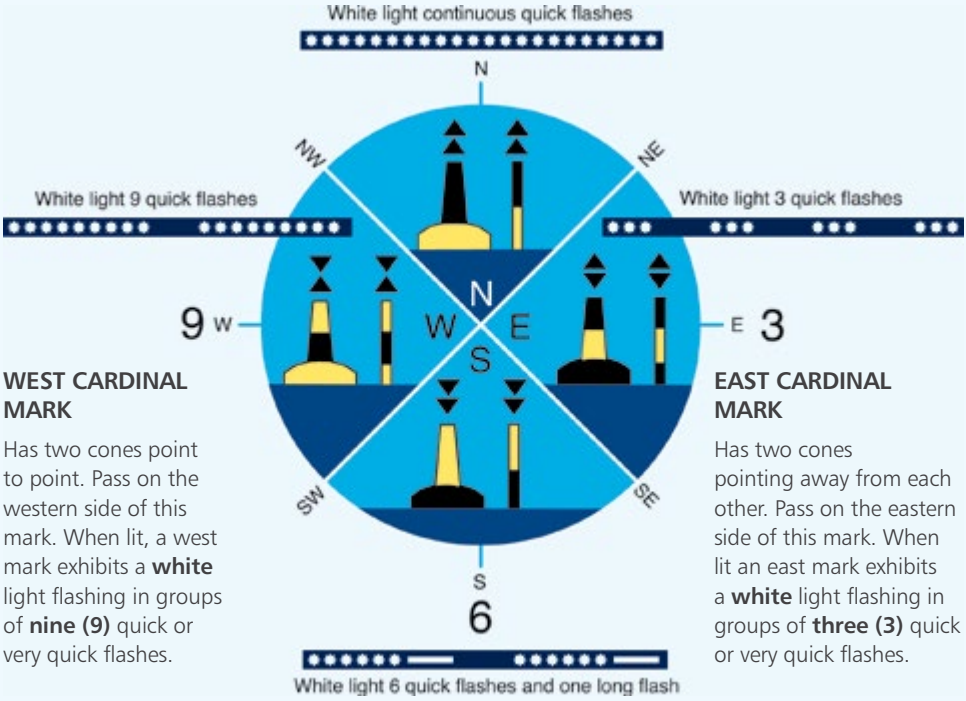
REMEMBER

Think of a clock face when remembering the lights on cardinal marks.

Three flashes = East.
Six flashes and one long flash = South.
Nine flashes = West.
Continuous flashes = North.

NORTH CARDINAL MARK

Has two cones pointing up. Pass on the northern side of this mark.
When lit, a north marker exhibits a **continuous** (very) quick **flashing white** light.



WEST CARDINAL MARK

Has two cones point to point. Pass on the western side of this mark. When lit, a west mark exhibits a **white** light flashing in groups of **nine (9)** quick or very quick flashes.

EAST CARDINAL MARK

Has two cones pointing away from each other. Pass on the eastern side of this mark. When lit an east mark exhibits a **white** light flashing in groups of **three (3)** quick or very quick flashes.

SOUTH CARDINAL MARK

Has two cones both pointing down. Pass on the southern side of this mark. When lit a south mark exhibits a **white** light flashing in groups of **six (6)** quick or very quick flashes followed by a long flash

SPEED SIGNS

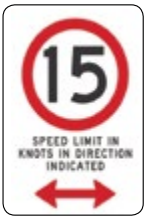
In some areas, speed restriction signs are used for safety reasons in NSW. These usually show four or eight knots, but can also show six, 10 and 15 knots. Penalties apply for travelling in excess of the speed restriction.

4 knots

About 7 km/h or a fast walking speed

6 knots

About 11 km/h or a jogging speed



15 knots

About 28 km/h or a fast running speed. Used in the Sydney Harbour Transit Zone. See page 76 for additional details.

WASH

The operator of a vessel must not cause wash that damages or impacts unreasonably on:

- Any dredge or floating plant
- Any construction or other works in progress
- Any bank, shore or waterside structure
- Any other vessel, including a vessel that is moored.

'Wash' is the wave effect created by a vessel moving through the water. 'No Wash' and 'Reduce Wash' signs are placed in some areas where the wash from a vessel is likely to cause damage to the foreshore or vessels, or injury or annoyance to people.

Be aware that vessel wash can travel for hundreds of metres, and you can be held legally responsible for damage caused by wash from your vessel.

Travel at a speed which creates minimal wash when you see this sign and when near moored or anchored vessels. Look behind occasionally to see if your boat is creating wash that affects other boats or the shore. Adjust your speed if necessary.

Regardless of signs, you should not navigate your vessel in such a way as to produce wash that damages other vessels or impacts unreasonably. This is an offence.

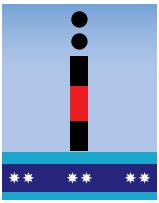
IMPORTANT NOTE

On the spot fines are issued for creating excessive wash.

Travelling at the speed shown on a speed restriction sign does not guarantee you are not creating excessive wash.

OTHER BUOYS AND SIGNS

Isolated danger



Indicates specific dangers with generally safe waters all around (eg a wreck). You can pass them on any side but do not pass too close. If lit, it shows a white light flashing in groups of two.

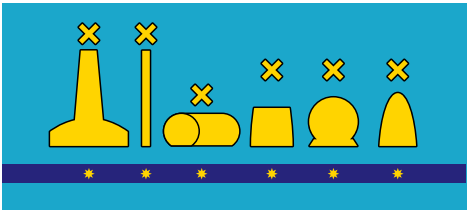
Special marks

Indicates special features or areas such as:

- Tide poles
- Spoil grounds
- Underwater pipes.

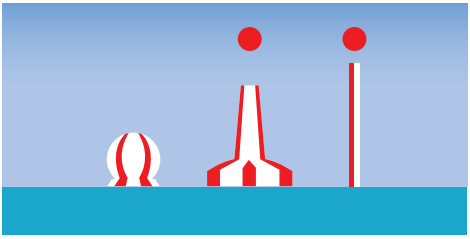
They can be utilised as lateral marks by using can or conical shaped buoys. If so they must be passed as lateral marks: can (port hand) or conical (starboard hand). See page 57 for more information.

These marks, if lit, show a yellow light at night which may flash in any rhythm.



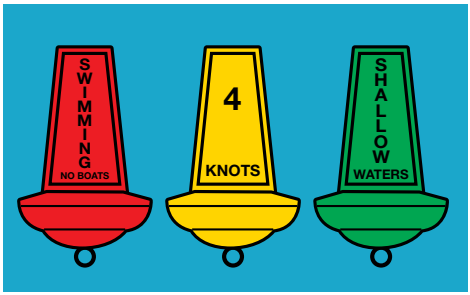
Safe water marks

These are not common in NSW. They may be used to mark the division of large shipping channels. They may show a white flashing light at night. Where the mark is used to identify a turning point or centre line it should be kept on your left hand (port) side.



Aquamark minibuoys

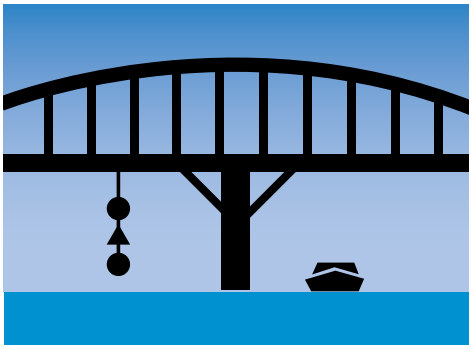
Used in some areas as alternatives to conventional buoyage. They often have advisory messages on them and penalties may apply for breaching the requirement displayed.

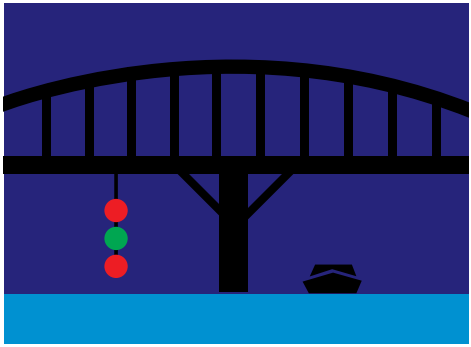


Channel blocked/closed

These signals mean vessels should not navigate in that part of the channel.

- Bridge span blocked
- Channel is blocked
- Port closed.





Submarine cables

Submarine cables carry electrical power or telecommunication signals under the water. Anchoring is prohibited within 200 metres of a submarine cable. If your anchor becomes snagged in this area, it should not be retrieved. Cut the anchor line as close as you can to the anchor.

Overhead power lines

As clearance height can vary according to water levels, it is most important that masters know the heights of their masts and understand the height level given on any sign.

Most of the existing signs on the water give the clearance of the power lines as the clearance above Mean High Water Springs or the average of very high tides. It is important to know that this clearance height may be reduced during king tides or floods.

A new crossings signage system is progressively being introduced on NSW waterways. The new signage advises the maximum vessel height which can be navigated under an overhead crossing. It is important to note that clearances may be reduced during floods.

Roads and Maritime offers a free sticker which you can use to help remember the height of your vessel above the water line. You are encouraged to place the sticker close to the steering position of your vessel.

Extra caution is required during the changeover period from the old to the new system and when launching/retrieving vessels with a mast on shore. Always keep a lookout for overhead power lines.

Bridges

Bridge heights on maps are measured at the Mean High Water mark, so you should allow for higher than average tides at certain times of the year. Also consider your vessel may require more room when unloaded.

Understanding the system of navigation buoys, poles and lights is an essential element of safe boating.

NIGHT SAFETY

BE BRIGHT – BE SAFE AT NIGHT

When night falls it is a completely different world on the water and so vessels that operate from sunset to sunrise, whether at anchor or underway, must carry and exhibit the correct lights.

IMPORTANT NOTE

Boating at Night

Go slow, be seen, keep a lookout and be bright.

GO SLOW

When fog, glare, smoke or darkness restricts your visibility, you must slow down to a safe speed. A safe speed is one at which you can stop and avoid a collision, considering the circumstances and conditions at the time.

You wouldn't drive fast on a dark road without headlights, the same applies on dark waterways. Be bright!

Remember, the faster you go, the faster you approach hazards and the less time you have to react. Hitting a hazard at speed can have a greater impact on you, your passengers and your boat.

Check all your navigation lights are working before heading out on the water, switch them on and slow down to a safe speed when night falls.

BE SEEN

You may be able to see others but can they see you? At night, every type of craft on the water needs lights in order to be seen. Whether you are paddling, rowing, sailing or motoring, everyone needs to be able to recognise where you are and what you are doing.

Make sure you have the correct lights for your craft and that they work properly. Use them as soon as the sun goes down or when visibility is poor. Your lights should be mounted in a position that gives you optimum night vision and allow others to see you from every direction.

You must carry a working waterproof floating torch. It may help others see you if you shine your torch on your sails or superstructure.

Make sure you don't adversely affect your night vision or the vision of other boat skippers.

Vessels at anchor displaying all round white lights. Photo courtesy of City of Sydney.

NAVIGATION LIGHTS CHECKLIST

Check your lights before heading out. When boating at night or in times of restricted visibility:

- Check switches are on
- Check navigation lights are on and working
- Physically check each light is on
- Turn off cabin lights as they may reduce your ability to see
- If the vessel has a flybridge and weather permits, it is generally preferable to drive from there as you will have a better all round view
- If you anchor at night, show an all round white light clearly visible through an arc of 360 degrees, where it can best be seen.

KEEP A LOOKOUT

Navigating at night requires special care, it can be like looking into a black hole. Look and listen at all times, as a number of hazards such as logs, moored boats or sandbanks are unlit.

Navigation lights may not be as bright as other lights and background lights may hide something that is closer. If it is a large ship, the lights might be high and you may not realise that you are looking at the sides of a black hull.

If you have the slightest doubt, stop, ensure you are lit and have a good look around you.

KNOW YOUR WATERWAY

Navigation markers can aid you in safe passage of a waterway. These aids to navigation can indicate where prominent hazards are, but should be coupled with reference to a map or chart and use of local knowledge of the area, particularly in the dark.

DIFFERENT LIGHTS

All round white light: A white light showing an unbroken light over an arc of the horizon of 360 degrees.

Masthead light: A white light placed over the fore and aft centreline of a vessel, showing an unbroken light over an arc of the horizon of 225 degrees and fixed to show from anywhere ahead, to just behind the beams of the vessel.

Sidelights: A green light on the starboard (right) side, and a red light on the port (left) side of a vessel. Each shows an unbroken light over an arc of the horizon of 112.5 degrees, and is fixed to show from ahead to just behind the beam of the vessel on its respective side.

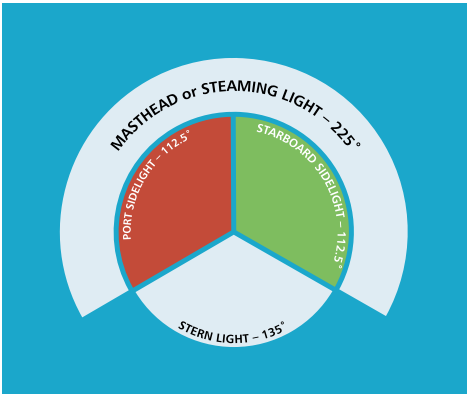
On a vessel of less than 20 metres in length, the sidelights may be combined in one light unit, carried on the fore and aft centreline of the vessel.

Sternlight: A white light placed near the stern, showing an unbroken light over an arc of the horizon of 135 degrees, fixed to show from behind the vessel.

REMEMBER

Look out at night

- Is that a vessel(s)?
- How big is it?
- What direction is it travelling in?
- How fast is it moving?
- How far away is it?
- Does it have priority?
- What is our relative position?



RANGE OF VISIBILITY

Vessels under 12 metres

- Masthead light – 2 nautical miles (nm)
- Sidelight – 1nm
- Stern light – 2nm
- All round lights – 2nm.

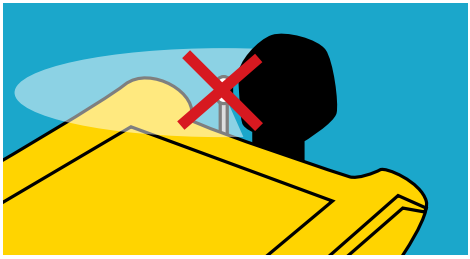
Vessels 12 metres to 20 metres

- Masthead light – 3nm
- Sidelight and stern light – 2nm
- All round lights – 2nm.

PLACEMENT OF LIGHTS

Incorrectly installed navigation lights

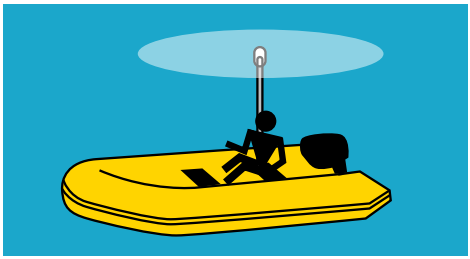
Navigation lights should be installed correctly so they show the appropriate arc of light and are not obscured by the vessel's superstructure as shown in the diagram below, or interfered with by deck lights. This reduces the vessel's visibility and is dangerous.



The diagram above shows incorrectly installed sidelights. Don't install them so they point only forward or straight up. They need to point out across the water as described and illustrated on the opposite page.

Masthead

The masthead and/or all round white light must be fitted (if practical) on the centreline (bow to stern) of the vessel.



POWER VESSELS UNDERWAY

Power vessels under seven metres and less than seven knots

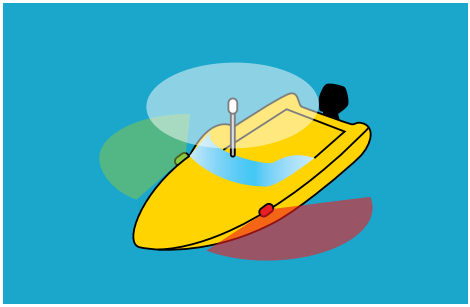
Powered vessels of less than seven metres in length, capable of a maximum speed of seven knots or less, shall exhibit a white light visible all round and if possible, separate and/or combined sidelights.

All other power vessels under 12 metres

Shall exhibit one of the following:

- Separate or combined sidelights; a masthead light and a stern light
- Separate or combined sidelights and an all round white light.

The masthead or white all round light shall be carried at least one metre above the sidelights.

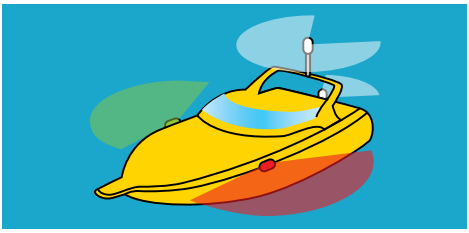


Power vessels 12 metres to 20 metres

Shall exhibit one of the following:

- A masthead light, separate sidelights and stern light
- A masthead light, combined sidelights and stern light.

The masthead light shall be carried at least 2.5 metres above the gunwale. Combined sidelights shall be carried at least one metre below the masthead light.



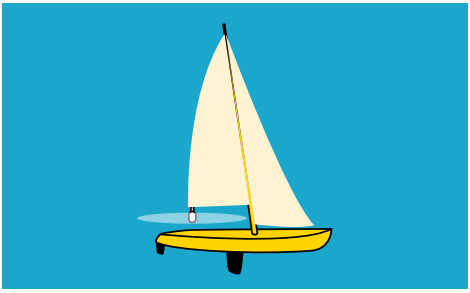
SAILING VESSELS UNDERWAY

Sailing vessels while underway (being motor driven) under power shall exhibit navigation lights applicable to power driven vessels.

Sailing vessels under seven metres

Sailing vessels of less than seven metres in length, or vessels being rowed, should if practicable exhibit the lights required for sailing vessels over seven metres.

If not they should have ready use of a torch or lantern showing a white light which shall be exhibited in sufficient time to prevent collision.



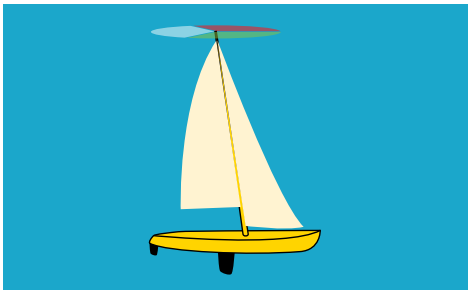
IMPORTANT NOTE

The use of tricoloured lights alone in areas affected by backlighting is not recommended eg Sydney Harbour. In these cases it is recommended to use deck level navigation lights to make your vessel as visible as possible.

Sailing vessels seven metres to 20 metres

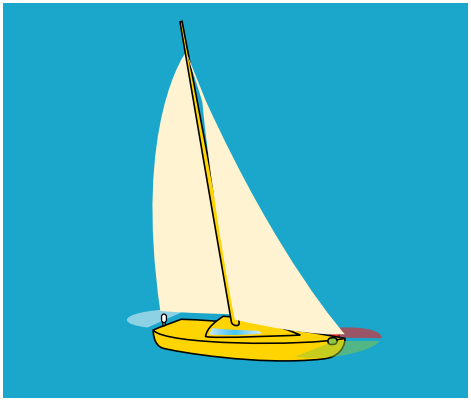
Shall exhibit one of the following:

- A combined lantern, that is at or near the top of the mast and incorporates sidelights and stern light
- Separate sidelights and stern light.



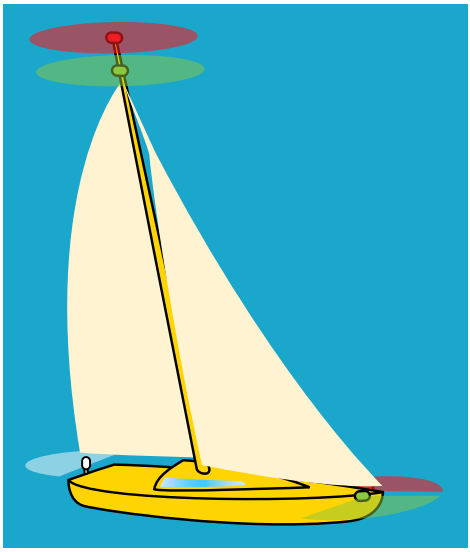
Sailing vessels over 20 metres

Must exhibit sidelights and stern light and may carry the optional red and green all round lights. However, these vessels may not carry a combined lantern.



Optional lights for sailing vessels

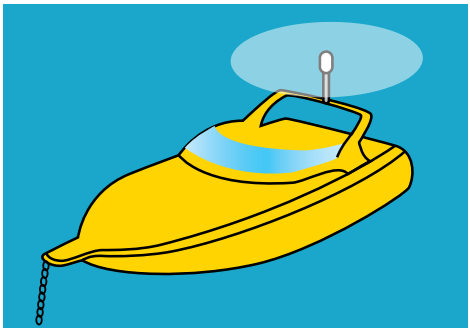
A sailing vessel of any length which is fitted with sidelights and a stern light (but not a combined lantern) may, in addition, carry two all round lights in a vertical line at or near the top of the mast. The upper light shall be red and the lower green.



Power and sailing vessels at anchor

Vessels less than 50 metres in length at anchor shall exhibit an all round white light, placed where it may be well seen.

Anchor lights must always be shown from sunset to sunrise. If you are at anchor in a busy area, then show additional lights such as deck lights or cabin lights to ensure you are seen and keep a good watch.



ROWING/PADDLE VESSELS

Such craft must have a torch or lantern ready to display in time to prevent a collision. Craft that are more than four metres long should exhibit two all-round lights, either continuous or a combination of continuous and flashing white lights, positioned at either end, in accordance with the Code of Conduct for Rowing.

IMPORTANT NOTE

There are many other combinations of lights used on vessels. The lights shown relate to the activity the vessel is engaged in, ie fishing, dredging, not under command.

A simple rule of thumb for a small power boat is to stay clear of any vessels exhibiting additional lights.

SPECIAL AREAS

OPEN WATERS

Handling a vessel at sea

The way a boat handles at sea will depend on:

- Its hull design and strength
- The amount of power used to propel it
- Wave direction
- The way the boat is steered
- The distribution of weight on board.

Bomboras

When boating along the coastline, particularly when close to a shoreline, be aware of bomboras. Bomboras are shallow areas such as those created by rocks or reefs that cause waves to break.

It is advisable to check maps and charts, talk to experienced locals and be aware of the existence of bomboras. The danger posed by these formations can be higher in good weather, as a bombora may not be identifiable because it may not always have breaking waves.

Boaters need to be cautious anywhere bomboras may exist.

Head seas

Generally, the best way to tackle bigger waves is to take them bow on or up to about 30 degrees off each bow.

Too much power will result in the boat leaping over the crests and crashing down into troughs. This slamming action is not good for either the boat or the people on board.

Too little power may mean that the waves break onto or over the vessel.

Control the speed and direction steered to achieve the most comfortable and safest ride.

Beam seas

The danger from travelling beam on to waves is that rolling is increased. The amount of rolling can be reduced by varying the angle to the seas.

The bow is the strongest part for taking on waves and is typically designed to take the initial impact of chop and waves. Vessel design however is extremely varied and it is essential you know the limits of your boat's capability.

Watch out for waves that are larger than others and consider changing course or speed to ride over or with it.

Following seas

Travelling with a following sea has the greatest potential for disaster, with broaching sideways and swamping/capsize a real possibility. Steering power is reduced by following seas and judicial use of the throttle controls is critical.

As in crossing a bar (see page 72), you should attempt to maintain a position on the back of waves, using throttle to keep ahead of waves breaking behind the boat.

Remember when conditions worsen

- Ensure all persons are wearing lifejackets
- Ensure the boat is as watertight as possible
- Use throttle control and steering to reduce the impact of waves
- The bow of a boat is the strongest part for taking on waves
- If caught in rough weather, report your situation to rescue authorities
- Secure all moveable items in the boat so that they do not become missiles
- Ensure all people are holding on firmly
- Have an EPIRB ready for use in case of capsize
- Stay with the capsized boat unless you are very close to shore.

Handling a vessel in rough weather/ hazards

Like other hazards on the water, rough weather can generally be avoided by obtaining a weather forecast prior to setting out.

A sudden unpredicted squall, however, can catch even the most careful boater, so you should always prepare and plan for the worst and keep a good lookout for tell-tale clouds and white cap waves.

IMPORTANT NOTE

If you doubt your chances of safely running back to harbour you may prefer to ride out the initial onslaught by keeping your bow into the wind and waves.

If you are close enough, run for the shore, a safe harbour or the lee of an island, where the wind cannot generate large waves.

Sudden squalls usually only last for a short period and sometimes precede a change in wind direction, usually blowing at much stronger speeds than the wind that will follow.

The main thing is to keep a speed sufficient to allow you to steer the vessel, but no faster. Without power to maintain steerage, a vessel will drift side on or beam on to the sea and be vulnerable to capsize.

A sea anchor or a strong bucket tied to the bows will help to keep you pointing into the waves should your engine fail.

IMPORTANT NOTE

Always wear your lifejacket at times of heightened risk.

SEAPLANES

When on the water, seaplanes are just like any other vessel. They are subject to all the restrictions and privileges of other boats and must conduct their operations accordingly.

Don't be alarmed if a small seaplane alights or takes off in the waterways near you. Seaplane pilots are specially trained and qualified to operate upon the water. Like other boat operators, they hold marine boating licences to operate a vessel at speeds in excess of 10 knots.

Avoid making sudden changes of direction which might confuse the pilot or obstruct the seaplane's path.

Check the conditions before you cross ... this skipper made it, just!

BAR CROSSINGS

Shallow sand bars which can form at the point where rivers, creeks, lakes or harbours meet the sea are locations for experienced vessel drivers only. Any channel through such bars can change frequently. Even in apparently calm conditions vessels can be swamped, damaged or wrecked on bars and lives have been lost.

Avoid crossing a bar on a run-out tide as this is when dangerous waves are most likely to occur.

Knowledge and experience

If in doubt, don't go out.
Do not attempt to cross any bar without experience and local knowledge. You should:

- Spend considerable time watching the bar conditions in all combinations of weather and tide
- Cross the bar with other experienced skippers before trying it yourself
- Obtain and read a copy of the bar crossing brochure from Roads and Maritime.

Preparation and planning

Prior to crossing any bar it is recommended that the following checks should be made.

- Know the times of the tide and obtain an up to-date weather forecast, especially expected wind and sea conditions
- Observe the bar conditions, either in person or via the online network of web cameras, and be prepared to cancel or delay the crossing
- If unfamiliar with the bar, obtain advice from experienced locals, eg from the local Marine Rescue NSW unit
- Check the vessel, especially steering and throttle controls, watertight hatches and drains. The vessel must be seaworthy, suitable for the conditions and able to take some impact from waves
- Ensure that all loose items can be stowed away in lockers or tied down to prevent movement
- Check that all watertight hatches can be closed and sealed properly, drain holes are free and bilge pumps work.

On the water prior to crossing

- Secure all loose gear and equipment
- Brief your passengers/crew about the dangers
- Make sure all people onboard have their Level 100+ lifejacket on
- Check all watertight hatches are closed and secured but not locked
- Assess the bar conditions, have they changed since your last inspection?
- When crossing coastal bars, you should not lose your nerve in the white water. Once committed, keep going
- Trying to turn around in the middle of a bar entrance can be disastrous. Try to take waves as close to head on as possible.

Going out

The outgoing vessel must meet the incoming wave energy. Do not hit waves at high speed as an airborne vessel is out of control and can cause damage and injury. Do not allow waves to break onto your vessel.

As a guide:

- Idle towards the breaking waves watching for any lulls
- If a flat spot occurs speed up and run through it
- If the waves keep rolling in, motor to the break zone
- Gently accelerate over the first part of broken water
- Apply more power and run to the next wave, heading for the lowest part (the saddle) if possible because this is the last part to break
- Back off the power just before meeting the next swell
- Pass slowly through the wave and accelerate again to the next wave
- Repeat the process until through the break zone.

Coming in

Be aware the conditions may have changed.

If dangerous, consider alternatives:

- Wait for conditions to abate
- Wait for change of tide
- Seek alternate safe harbour.

The vessel should travel at the same speed as the waves. The aim is to travel in on the back of a swell, staying ahead of waves breaking behind the vessel.

You should:

- Approach the break zone and try to pick the spot with the least activity
- Keep any leads in transit as breakers may obscure your vision of the entrance
- Choose a set of waves suitable for your entry
- Position the vessel on the back of a swell and maintain speed, ensuring that:
  - You do not overtake the wave and run down its face
  - You stay ahead of any wave behind you
  - When the wave ahead of you has broken, accelerate through the white water
  - Beware of steep pressure waves bouncing back off the entrance or shore
  - Adjust speed to counter any pressure waves or any outgoing current.

Roads and Maritime has a number of initiatives on bar crossings including the brochure *Bars 'n' Boats – A Safety Guide*, a list of coastal bars and a bar crossing safety checklist sticker.

Roads and Maritime also has a network of web cameras to assist in trip preparation. Check the Roads and Maritime website for up-to-date information and live vision of 19 locations along the NSW coast and in the alpine area.

INLAND WATERWAYS

Boating on inland waterways such as rivers, creeks and dams demands special care. Many of these areas present issues not encountered in coastal waters, including submerged trees and other snags.

Inland waterways are often murky and constantly changing; if you don't have a depth finder play it safe and reduce speed.

Familiarise yourself with the area using maps and wherever you can, talk to local operators. They can often provide valuable knowledge such as how the current runs after rain and water depth following drought.

Keep a good lookout for objects ahead or above you, such as overhead powerlines and low level bridges.

Strong currents in major rivers and creeks can flow at fast rates and affect the manoeuvrability of vessels. Never underestimate the power of even a moderate current, which can exert a strong force that may trap vessels such as canoes against rocks. Extra caution is required following heavy rain or flooding.

Be careful in dams subject to water releases and stay well clear of spillways. These can be extremely dangerous due to turbulence as the water flows through spillway gates. Boats can easily become caught in the turbulence and trapped.

Also remember that during release periods the foreshore can become soft, trapping vehicles during launch and retrieval.

Rivers and dams may look peaceful, but low water temperature and remote locations could prove risky should trouble occur.

Remember not to overload your vessel.

Wind and waves

The surface of the water in shallow dams and storage areas can become extremely rough in windy conditions. Waves are generally short and steep, and can be as high as those encountered in coastal areas.

Submerged trees and other snags can pose danger on inland waterways.

Always get a wind/weather report before boating and once out on the water, keep a constant lookout for signs of:

- Changing weather
- White caps/disturbance on the water
- Cloud development.

If the conditions deteriorate, put on your lifejacket and head for shore. Remember it is better to be on the shore a long way from home, than a long way from shore in such conditions.

Communication

If you are going to go boating in remote locations, have a good reporting plan in place. Always tell someone where you will be launching from and going, how many people are with you and when you intend to return.

Phone or radio coverage is not always possible, making assistance difficult if problems occur.

ALPINE WATERS

Alpine waters refers to:

- Lake Burrinjuck
- Lake Eucumbene
- Lake Jindabyne
- Khancoban Pondage
- Swampy Plains River
- Mannus Lake
- Googong Reservoir
- Blowering Reservoir
- Pejar Dam
- Yass River
- Lake Oberon
- All navigable waters within the boundaries of Kosciuszko National Park.

Alpine waters present their own unique boating challenges. As with other inland waters, many hazards are not marked and as water levels fluctuate, more hazards may develop just under the surface.

The most common vessel operated in these areas is the small open runabout which is reasonably inexpensive to buy, easy to tow and used as a fishing platform. The majority of these vessels, however, are designed for calm water conditions only.

Wearing a lifejacket is compulsory in most situations on alpine waters. For full details refer to pages 22-23.

Alpine weather

Alpine lakes are often subject to very cold and windy weather. Many of these lakes commonly experience snow in winter. The higher altitude means weather often changes quickly, so proper trip preparation and continuous monitoring of the weather when you are out are essential. Watch for any warnings and be prepared to change your plans if necessary.

When boating in alpine waters check the weather with the Bureau of Meteorology's graphical forecasts **bom.gov.au/australia/meteye/** and zoom into your location. You can also use **m.bom.gov.au** on your mobile device and type in the nearest location.

Cold water

Winter brings a greater risk of hypothermia to boaters exposed to the elements. Capsizing in cold water can also be life-threatening. 'Cold shock' can incapacitate almost instantly. So plan and prepare to avoid cold shock and hypothermia.

- Minimise your capsize risk
- Check the weather. If in doubt, don't go out
- Wear warm and wet weather gear
- Wear a lifejacket
- In the water, don't swim unless extremely close to the shore. Remain with your craft in the 'HELP' or 'Huddle' position
- Remember, alcohol increases the body's heat loss.

See page 94 for more information.

SYDNEY HARBOUR

Sydney Harbour is a unique waterway that is used extensively by a diverse range of recreational and commercial boats including large ships, ferries, charter boats, cruisers, yachts, runabouts, sailing skiffs, dinghies, sailboards, rowing shells, kayaks and dragon boats.

The harbour is an extremely busy waterway that requires you to be aware of your responsibilities and to take care when boating, especially in busy navigational channels, and make allowances for commercial activity.

There is a need to consider paddlers, rowers and sailors as well as accommodating the needs of commercial operators and those wishing to cruise, ski and fish on the Harbour.

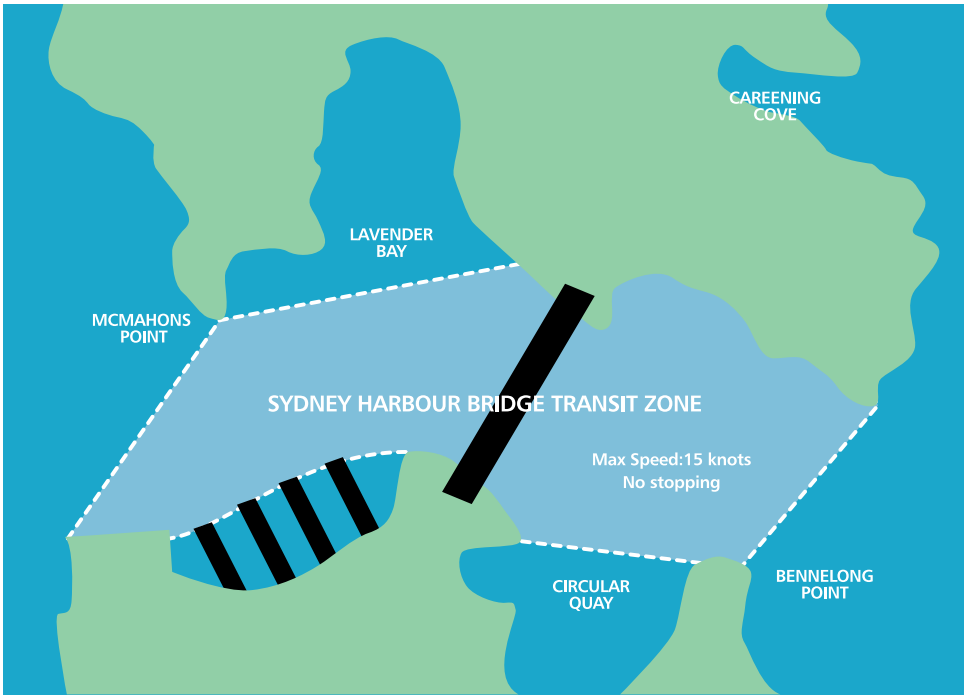
The number of vessels on the Harbour is increasing each year, providing a greater challenge in managing the potential for additional conflict and incidents to ensure safety on the waterway.

There is a continuing need for an understanding and commitment to water safety by all people using the harbour. The different types of boating may not always be compatible and can lead to potential conflicts eg people sailing in organised events and commercial vessels operating to timetables.

Sydney Harbour Bridge Transit Zone

Roads and Maritime has established the Sydney Harbour Bridge Transit Zone. The transit zone has a 15 knot maximum speed limit in the vicinity of the Harbour Bridge, between a line drawn between Bennelong Point and Kirribilli Point to Millers Point and Blues Point, but does not include Walsh Bay, Sydney Cove or Lavender Bay north of a line between Blues Point and the southern extremity of Milsons Point ferry wharf.

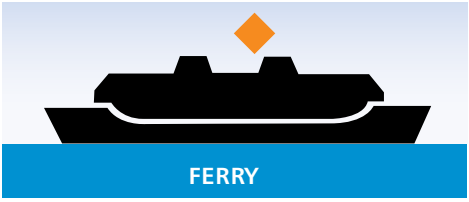
Within this zone, anchoring or drifting are prohibited other than in an emergency. This means that vessels may only travel through this area to reach an area alongside or outside of the transit zone.



Priority over sail

Some ferries on Sydney Harbour display an orange diamond shape. The shape is called the priority over sail signal. This shape removes the usual 'power gives way to sail' rule - meaning a sailing vessel is required to keep out of the way of any ferry displaying an orange diamond. The only exception is if the ferry is overtaking the sailing vessel.

For general safety and courtesy, skippers of sailing vessels should stay at least 200 metres from the bow, and at least 30 metres from the sides or stern of a ferry displaying the priority over sail signal.

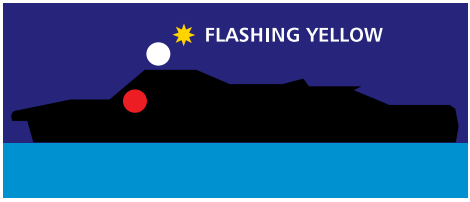


IMPORTANT NOTE

The use of a PWC is prohibited in Sydney Harbour, including all tributaries such as Parramatta River.

High speed ferries (on Sydney Harbour)

These craft carry the normal lights for a power driven vessel underway and, in addition, they exhibit an all-round flashing yellow light when they are travelling at speed.



Sydney Harbour Control

Channel 16/13 (24 hours). Details of large vessel movements, navigation warnings and meteorological forecasts are broadcast on VHF Channel 13 from approximately 1.05am, every second hour. Unless otherwise directed, sailing vessels and motor vessels are not to impede the passage of commercial shipping/naval vessels inside the shipping channels. See pages 78-79 for more information.

BIG SHIPS AND SMALL BOATS

Large vessels are restricted to particular channels and cannot deviate from their set course. These vessels are restricted in their ability to alter their course due to their size and need a large area to turn and stop. Their stern swings out wide when negotiating a turn and they lose steerage if they travel too slowly.

The main safety tips for small boats around shipping and ferry channels are:

- Recreational boats, both power and sail, should keep well clear of large vessels and ferries
- Do not cross ahead of large vessels or ferries unless well clear. Even when hundreds of metres away, your boat may disappear from the ship master's view from the bridge
- Remember, large vessels tend to travel much faster than they appear to be. Give yourself plenty of room
- Do not cross close astern of a large vessel or ferry
- Always keep to the starboard side of a channel
- Do not cross a channel if you are going to impede a vessel which has to use the channel
- Roads and Maritime provides more information regarding big ships and small boats on its website, including map sections within the local boating map showing the shipping channels. Visit **rms.nsw.gov.au/maritime**.

Active radar reflectors (ARR)

Active radio reflectors emit a signal to nearby radar receivers. The signal is amplified and returned to the transmitting vessel.

This makes vessels more visible on radar receivers from greater distances and may reduce the chance of being involved in an incident. It may also assist rescue operations in the event of an incident.

ARR need to be mounted high enough on a vessel to be effective (eg up the mast) and they require a power source. Consequently they may not be suitable for some smaller vessels.

While ARR are not mandatory on NSW navigable waters, they may be a good inclusion to improve your visibility to other vessel operators.

Large vessels are restricted in their ability to alter course and cannot stop quickly. Always keep well clear of them.

Recreational boat users beware

- Always keep a proper lookout for big ships and steer clear of them
- Make your intentions clear to an approaching vessel well in advance. For the master of a large ship who is unclear of your intentions, you should indicate that you are getting out of the way of a large vessel at least one kilometre in advance of that vessel
- Do not anchor in a navigation channel
- Ensure you can be seen clearly at all times. Dull aluminium tinnies can be difficult to see, especially in overcast and poor conditions. Wear bright clothing and be seen
- After sunset and in restricted visibility, ensure you have the correct navigation lights fitted and they are in proper working order. Your lights must be bright and must be visible for a distance of kilometres. Lights not only tell the other vessel what sort of vessel you have, but also what you are doing and where you are going. Make sure that if someone 'interprets' your lights, they are getting the right message.

Do not risk crossing ahead of large vessels unless well clear.

GO EASY ON THE DRINK

When afloat, your coordination, judgement, vision, balance and reaction time can decline up to three times faster after consuming alcohol. The boating environment with the waves, motion, vibration, engine noise, weather, wind and spray multiply the effects of alcohol. Driving under the influence of alcohol or drugs is an offence.

Everyone aboard needs to take care. 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.

Operators of vessels that are underway may be subject to random breath testing and subject to heavy penalties if found to be over the limit. The 'operator' of a vessel includes anyone steering or exercising control over its course or direction and includes the observer in a vessel which is towing people, as well as anyone being towed.

See page 107 for further information about drug and alcohol offences and random breath/ drug testing.

WEATHER

Always check the weather before and during boating. If it looks dicey, don't go out. If it starts to turn bad, head straight for shelter. A marine radio helps you keep in touch with weather updates. Learn to understand and read weather patterns, the wind, waves and the limits of your craft.

GOING OFFSHORE

A good skipper will always treat the ocean with respect, so it's essential to plan and prepare when going offshore. Check the weather forecast and your safety gear.

Plan for any change of conditions by anticipating wind, waves, tides and safe havens.

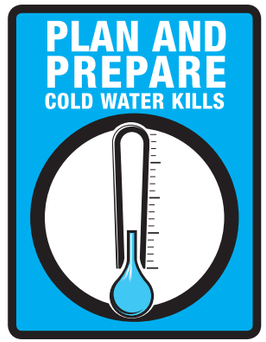
You must have a marine radio and a 406 MHz EPIRB distress beacon when more than two (2) miles offshore. And, always let someone know where you're going and when you plan to return.

BE PROP AWARE

Boat propellers pose a risk that is easily ignored because they are under the water, 'out of sight and out of mind.' But a strike from a spinning propeller can cause serious injury or even death.

- Ensure the prop area is all clear before starting the engine
- Keep all arms and legs inside the boat
- Keep a proper lookout, especially when near swimmers, observe 'distance off' rules and stay out of designated swimming areas
- Wear a kill-switch lanyard when boating alone.

HYPOTHERMIA



Boating in cooler weather increases the risk of developing hypothermia from wind-chill, capsize, and damp and wet clothes.

Hypothermia is the effect of heat loss from the body. Immersion in cold water causes the body to lose heat up to 25 times faster than normal and the shock of sudden immersion in cold water can be a serious threat to survivors of accidents.

- Plan and prepare to avoid hypothermia. Minimise the risk of capsize or swamping, keep an eye on the weather and if in doubt, don't go out
- Wear warm thermal clothing, including a beanie and add wet weather gear over your warm clothes to provide wind proofing. Foul weather gear or waders may help keep you warm but are extremely difficult to swim in. So, if you wear this sort of gear in a boat – put on a lifejacket
- Wear a lifejacket at all times of heightened risk
- In the water, don't swim. Remain with your craft in the "huddle" position
- If hypothermia is suspected, try to reduce any further heat loss and commence rewarming slowly.

NAVIGATION LIGHTS

When night falls, it is a completely different world on the water. Vessels that operate from sunset to sunrise, whether at anchor or underway, must carry and exhibit the correct lights. When boating at night – go slow, be seen, keep a lookout and be bright. Make sure you have the right lights for your craft, they are working properly and mounted in a position that gives you optimum night vision and allows others to see you from every direction.

Carry a working waterproof torch. It may help others see you if you shine your torch on your sails or superstructure. Make sure you don't affect your night vision, or the vision of other boat skippers.

If you anchor at night, show an all-round white light where it can best be seen.

Navigating at night requires special care – look and listen at all times, as a number of hazards are unlit such as logs, moored boats or sandbanks.

If you have the slightest doubt, stop, ensure you are lit and have a good look around you.

For more information, visit **www.maritime.nsw.gov.au** or call the info line **13 12 56.**
Maritime is a division of Roads and Maritime Services.

**YOU'RE THE SKIPPER
YOU'RE RESPONSIBLE!**

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MAR0303/UC 02/12

NSW Transport Maritime

NSW Transport Maritime

SAFE AND RESPONSIBLE BOATING

The skipper of every boat is responsible for the safety of their vessel and the people on board.

While that responsibility presents some challenges, a seaworthy and well-prepared vessel in good hands can provide an immense amount of enjoyment for you, your friends and your family.

Preparation and awareness are two of the most important elements of safe and responsible boating.

As skipper, take time to ensure the boat is ready and also spend time to consider the safety issues highlighted in this brochure.

More information on these and other boating safety issues is available at **www.maritime.nsw.gov.au**

LIFEJACKET – WEAR IT

Lifejackets save lives. But a lifejacket will not save your life if you are not wearing it.

You must carry a lifejacket for every person on board. But don't just have lifejackets on board, make sure you and your passengers wear them.

New rules apply in NSW and you must wear a lifejacket in situations including if you are:

- Under 12 years of age
- In a small vessel up to 4.8m long when boating alone, at night, on open (ocean) waters and on alpine waters
- On a PWC
- Being towed
- When wearing waders on alpine waters
- Instructed to by the skipper.

For more information, visit **www.lifejacketwearit.com.au** or call the info line **13 12 56.**

GO EASY ON THE DRINK

The blood alcohol limit on the water is the same as on land, 0.05, but that's where the similarities end. Drinking on the water isn't the same as drinking on land. Wind, waves and the sun can increase the effects of alcohol on your body. You are more likely to get drunk quicker and get disorientated, increasing the chance of a boating accident or drowning.

Be aware that random breath testing applies to the skipper of any vessel while underway.

KEEP A PROPER LOOKOUT

It may seem obvious, but you must keep an eye on what's going on around you. The skipper must be in a good lookout position at all times to watch and listen carefully, especially in bad weather, restricted visibility or darkness.

- Don't forget to look all around – even behind you
- Take special care in areas where higher speed vessels operate
- Keep watch for smaller vessels that can be difficult to see, especially kayaks and dinghies
- Watch for swimmers, floating debris and whitewater that may indicate submerged reefs and rocks
- Even when you have an observer while towing a person on skis or tubes, the skipper is always responsible for keeping a proper lookout
- Keep safe, keep to the right, especially when entering a narrow passage or on a sharp bend.

CARBON MONOXIDE

Carbon monoxide is a colourless and odourless gas produced when carbon-based fuel burns. Exposure to this gas can cause death or serious injury.

Carbon monoxide is normally at the back of the boat when engines and generators are running. If you have a headache, feel nauseous, dizzy or drowsy, move to fresh air.

To keep these gas levels under control and prevent poisoning, regular boat and engine maintenance and proper operation are important.

SPEEDING

Speeding on the water is the same as speeding on the road. It can kill. A skipper is responsible for taking a number of things into account.

CONDITIONS

Conditions on the water can change in the blink of an eye. The wind might pick up, wave size might increase and the current may change. The skipper is responsible for making sure a boat travels at a safe speed. If in doubt, slow down to suit the conditions.

VISIBILITY

You must slow down in heavy rain, thick fog, dense mist and intense glare when you're on the water. If you are travelling at night you are responsible for displaying navigation lights. Not all hazards are lit, so special caution is needed at night.

OTHER VESSELS

You must not speed close to other vessels. Slow down and take care in busy waterways and when you're near moored or anchored vessels and smaller craft. Extra caution is needed around working vessels or large boats that find it hard to manoeuvre.

NAVIGATION HAZARDS

Waterways are filled with hazards. Keep an eye on your speed in shallow or unfamiliar waters. Not all hazards are marked or lit, signs and buoys can be damaged, and lights can be out of action. You can report damage to nav markers to the info line **13 12 56.**

YOUR VESSEL

All boats are different. The size of your hull, engine and propeller type can affect your manoeuvrability. You are responsible for knowing your vessel's limitations. How quickly can you stop and turn?

CHILDREN

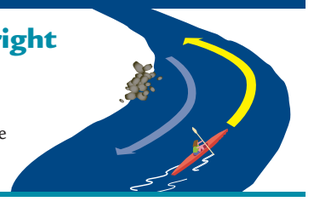
Children need to be carefully watched. Be especially careful not to allow children to be on the bow or to sit with legs dangling over the side while under power.

Paddle Smart

When Paddling You MUST

Keep safe, stay right

- Where possible paddle outside the channel
- Don't paddle in the centre of the channel or river

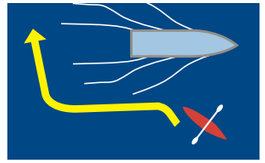


Keep a proper lookout

- Use your eyes and ears to keep a good lookout
- Take care when entering or crossing channels

Keep clear of larger vessels

- Cross behind, not in front
- Remember powerboat wash can capsize small craft



Wear a lifejacket

- When more than 100m from shore or on open (ocean) or alpine waters

ALL REGULATIONS FOR AVOIDING COLLISIONS APPLY.
SHOW REQUIRED LIGHTS AT NIGHT.

NSW Maritime

Info line **13 12 56**
www.maritime.nsw.gov.au

WAT0879_7/11

Sydney Harbour with its connected bays and tributaries is one of the world's premier waterways, providing unmatched opportunities for all forms of boating, from powerboats and yachts to canoes and kayaks.

It is also one of the world's busiest harbours, with canoes and kayaks sharing the water with large commercial ships and ferries.

An understanding of the safe boating rules that apply to all vessels, as well as the specific rules for canoes and kayaks, will help paddlers to enjoy their sport in safety.

Lifejacket wear requirements

Lifejackets must be worn when paddling more than 100 metres from the nearest shore on enclosed waters, and at all times on open waters. It is strongly recommended that you wear an approved lifejacket at all times when enjoying Sydney Harbour.

Navigation lights

Between sunset and sunrise a torch is a minimum requirement, but it is strongly recommended that the craft has an all-round white light visible in every direction.

General safety and traffic flow

Conflict between canoes and kayaks and larger craft can occur in confined waterways which are often busy with powerboat traffic, as is the case around Sydney Cove, Walsh Bay and Darling Harbour. When using these areas, paddlers need to be alert and keep a good lookout at all times, as the areas listed are all very busy with commercial traffic.

To alleviate potential conflict when paddling in these areas, it is recommended that you stay on the northern shore of Sydney Harbour. This will reduce the possibility of further conflict with larger vessels, while also raising general awareness of paddlers operating along the northern shore.

The map of Sydney Harbour in this brochure shows orange shaded areas which are prohibited to paddlers. The yellow and pink shaded areas are commercial and high traffic shipping channels, where paddlers must operate with extreme caution. The blue shaded areas should be entered only for the purpose of crossing from one side of the shipping channel to the other. When crossing these channels, paddle as nearly as practicable at right angles to the general direction of the traffic flow.

It is important to be clearly visible while on the water. Suggested precautions are to:

- Dress brightly
- Paddle in tight formation
- Keep a proper lookout
- Paddle during daylight hours or adhere to the night lighting requirements for canoes and kayaks
- Stay close to the shore line
- Keep to the starboard (right-hand) side of the channel.

Conduct a safety check before heading out:

- Check the latest weather and wave report, and plan your trip accordingly
- Check your equipment is in working order
- Advise friends or family of your time of departure, return and proposed route
- Carry a mobile phone in a waterproof pouch
- Carry sufficient drinking water and sun protection
- Dress appropriately for the conditions
- Use a paddle or leg leash in windy conditions
- Find out as much information as possible about the area you are going to paddle.

To learn more about the boating rules and lifejacket requirements, and for links to paddling organisations, visit **www.maritime.nsw.gov.au** **www.boatforlife.com.au** and **www.paddleNSW.org.au**

SAFETY PARTNER paddle nsw

PADDLE SAFETY ON SYDNEY HARBOUR

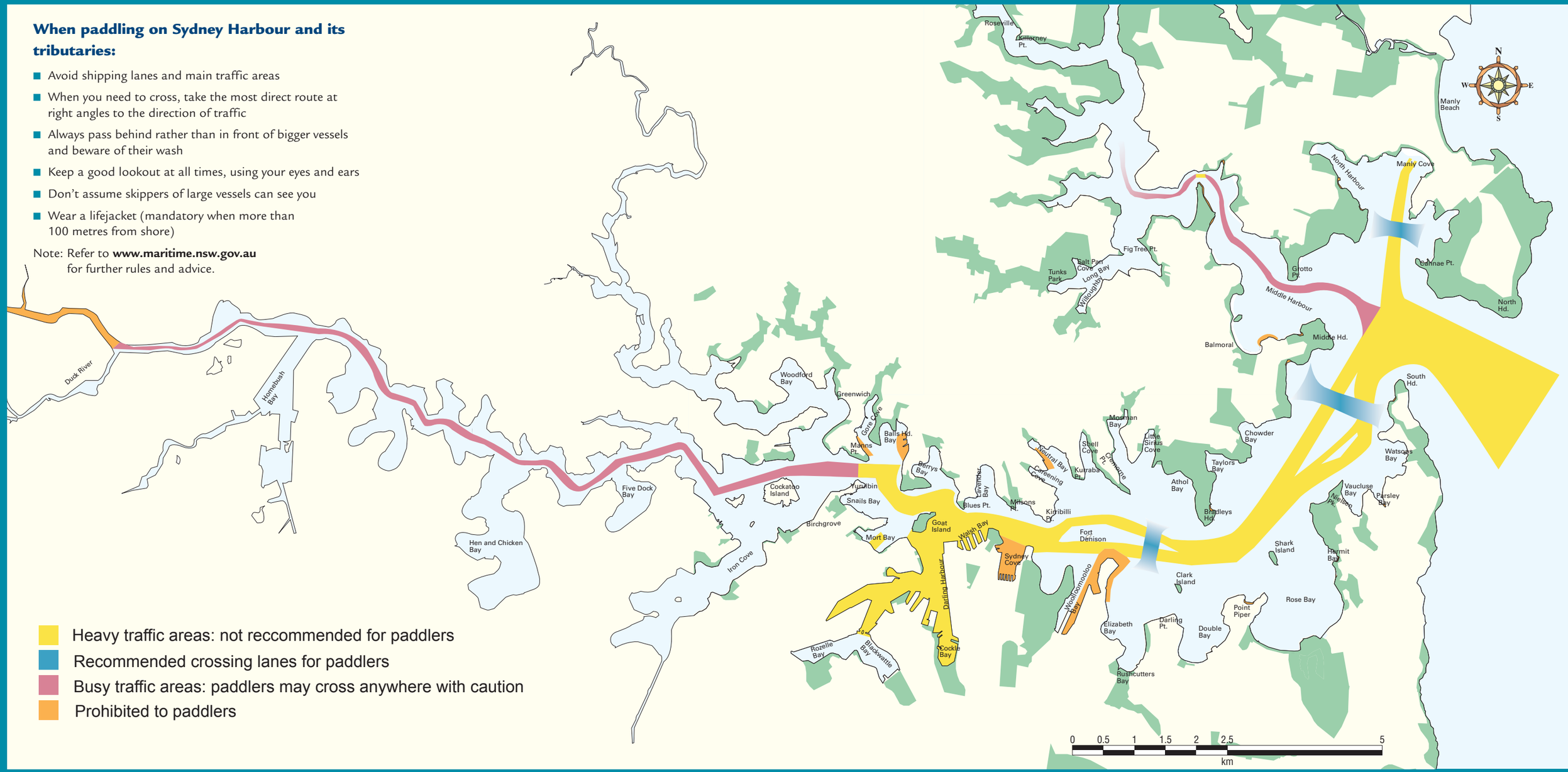
NSW Maritime

PADDLE SAFETY ON SYDNEY HARBOUR

When paddling on Sydney Harbour and its tributaries:

- Avoid shipping lanes and main traffic areas
- When you need to cross, take the most direct route at right angles to the direction of traffic
- Always pass behind rather than in front of bigger vessels and beware of their wash
- Keep a good lookout at all times, using your eyes and ears
- Don't assume skippers of large vessels can see you
- Wear a lifejacket (mandatory when more than 100 metres from shore)

Note: Refer to **www.maritime.nsw.gov.au** for further rules and advice.



Heavy traffic areas: not reccommended for paddlers

Recommended crossing lanes for paddlers

Busy traffic areas: paddlers may cross anywhere with caution

Prohibited to paddlers

NSW MARITIME

0 9 JAN 2008

Mr Murray Clarke
22 Murray Street
RUSSELL LEA NSW 2046

W01/00528
CEC07/868

Dear Mr Clarke

I refer to your correspondence of 24 October 2007 regarding the conditions of approval for the dry boat store in Rozelle Bay.

The issue of Development Application conditions for the dry boat storage facility is a matter for the Minister for Planning as the consent authority.

In relation to rowing coach vessels, when the 4 knot speed limit is introduced in Rozelle and Blackwattle Bays, I have approved NSW Rowing Association's request for an exemption from the 4 knot speed limit while rowing supervision is being conducted. At all other times, the 4 knot speed limit must be observed. An aquatic licence for the purpose of rowing training will not be required.

If you require any further information please do not hesitate to contact NSW Maritime's General Manager Recreational Boating, Mr Brett Moore on 9563 8660.

Yours sincerely

Chris Oxenbould AO
Chief Executive

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