

7. Buoys, marks, beacons, signals & signs

Buoys and marks are like marine traffic signals, and they have particular meanings. They warn of dangers, direct you to deep water and keep you on the correct side of the channel. This chapter covers the IALA (International Association of Lighthouse Authorities) buoyage system 'A', which combines visual aids during the day and light signals at night.

The chapter also outlines the signals used on vessels to communicate to each other and shore, their activity such as fishing, and status such as at anchor or aground. These signs and signals include daymarks, navigation lights, and sound and light signals, as well as a range of radio emergency calls.

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Flags to watch for

Surf-lifesaving patrol zone flag



The red and yellow flag is a familiar sight along Australian beaches, designating areas that are supervised or patrolled by surf-lifesavers. Because of the likely higher numbers of people in these waters, all vessels, including PWC and sailing craft, should avoid approaching within 200 m of shore within the flagged zone. You should also take care when operating craft adjacent to the flagged areas.

Marine signal flags are recognised throughout the world.



International flag A indicates 'Diver below'; keep well clear. In South Australia this means you must not exceed a speed of 4 knots within 50 m of a vessel or buoy displaying this flag.



International flag B indicates dangerous cargo - keep well clear.



International flag H indicates there is a pilot on board directing the vessel into or out of port.

Buoyage and navigation marks

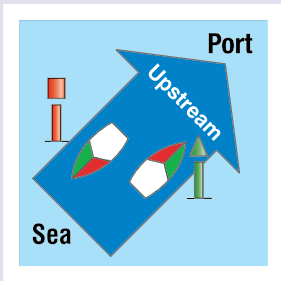
Direction of buoyage

On **entering** a port or harbour, or travelling upstream in a river or channel, you should pass the port (red) mark on your port (left) side and the starboard (green) mark on your starboard (right) side.

On **leaving** a port or harbour, or travelling downstream in a river or channel, you should pass the port (red) mark on your starboard (right) side and the starboard (green) mark on your port (left) side.

A simple rhyme that references navigation lights on your vessel and may help you remember is: *“Green to green when going upstream; green to red when seas are ahead.”*

The buoyage system



The IALA (International Association of Lighthouse Authorities) buoyage system ‘A’ is used for marine aids to navigation in South Australian waters.

The system uses marks that may be buoys, piles or beacons. They are distinguished by their specific colour and shape and, usually, a topmark. At night, they can be recognised by the different colours and patterns of their flashing lights. The shape of a mark can also be used to distinguish its type in poor visibility.

A marker may consist of one or more of the characteristics described in this section. For

example, a marker may be colour coded, but without a topmark due to damage.

It’s an offence to interfere with a navigation aid in any way, including mooring to them.

The following table shows the types of light rhythm used in the IALA ‘A’ system. Use these lights to identify your position and necessary course when boating at night.

IALA ‘A’ light rhythms		
Rhythm	Description	Navigation chart abbr.
Flash	Duration of light shorter than duration of darkness	Fl
Occulting	Duration of light longer than duration of darkness	Oc
Isophase	Equal duration of light and darkness	Iso
Quick flash	Flash rate of 60 or 50 a minute	Q
Very quick flash	Flash rate of 120 or 100 a minute	VQ
Long flash	A flash of not less than 2 seconds	LFI
Group flash	A group of two or more flashes	Fl(2) or VQ(9)

Note: when the mark’s light is not white, the colour is indicated in your chart abbreviation by either: Y (for yellow); R (red); or G (green). For example, a yellow light that flashes four times every ten seconds would be shown as Fl(4)Y10s.

The IALA buoyage system ‘A’ consists of five types of marks.

- Lateral
- Cardinal
- Isolated danger
- Safe water
- Special

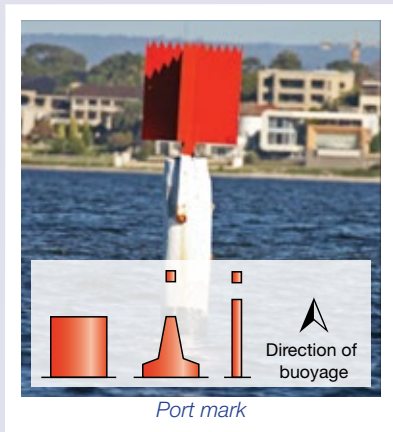
Lateral marks

Lateral marks indicate the port (left) and starboard (right) sides of a channel when travelling in the direction of buoyage, that is, upstream in a river or channel or into a port or harbour.

When lateral marks are numbered, odd numbers are on the starboard side and even numbers on the port side when travelling in the direction of buoyage. They are numbered from seaward heading into the harbour.

Port marks

On the port side of a vessel when entering a harbour or travelling upstream in a river or channel.



- Colour - red.
- Shape (buoys) - cylindrical (can), pillar or spar.
- Topmark (if any) - single red cylinder (can).
- Lights (when fitted) - red. May have any consistent rhythm listed but not composite group flashing (eg 2 then 1).

Examples of light rhythms on port lateral marks are:

- | | | |
|-----------------|------------------------|--|
| Q.R | Continuous quick flash | |
| Fl.R | Single flash | |
| L Fl.R | Long flash | |
| Fl (2) R | Group flash | |

(Refer IALA 'A' light rhythm table; 'R' means 'red')

Starboard marks

On the starboard side of a vessel when travelling towards buoyage.



- Colour - green (in exceptional cases, black).
- Shape (buoys) - conical (cone), pillar or spar.
- Topmark (if any) - single green cone pointing up.
- Lights (when fitted) - green. May have any consistent rhythm listed but not composite group flashing (eg. 2 then 1).

Examples of light rhythms on starboard lateral marks are:

- | | | |
|-----------------|------------------------|--|
| Q.G | Continuous quick flash | |
| Fl.G | Single flash | |
| L Fl.G | Long flash | |
| Fl (2) G | Group flash | |

(Refer IALA 'A' light rhythm table; 'G' means 'green')

Cardinal marks

Cardinal marks indicate the best navigable water and north, south, east or west as the safe side on which to pass danger (such as rocks, wrecks and shoals). A compass will help direct you to the safe side on which to pass these marks.

A cardinal mark is normally made up of a pillar or spar-shaped buoy coloured in black and yellow horizontal bands, and a black double cone topmark.

Both the topmark and the position of the black horizontal band or bands on the buoy or post have four different arrangements that indicate the side on which you should pass the mark;

these two indicators will always match, with the points of the topmark cones pointing towards the black band/s on the pole, pillar, or spar.

When lit, cardinal marks have a white light that either has a quick flash (about 1 per second) or very quick flash (about 2 per second). Think of a clock face when remembering the lights on cardinal marks. A light flashing three times indicates east, six flashes plus one long flash is south, nine flashes is west, and continuous flashing indicates north. The additional long flash for south and the continuous flashes for north help to avoid confusion if you lose your count.

The characteristics of cardinal marks are described in the following diagram.

- Pass on western side of mark.
- Horizontal black band - centre of buoy.
- Topmark - pointing inwards.
- 9 o'clock on clockface.
- Light - white.
- 9 quick or very quick flashes.

Q(9)15s



VQ(9)10s



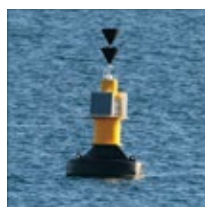
West cardinal mark

- Pass on southern side of mark.
- Horizontal black band - bottom of buoy.
- Topmark - pointing down.
- 6 o'clock on clockface.
- Light - white. 6 quick or very quick flashes and 1 long flash.

Q(6)+LFl.15s



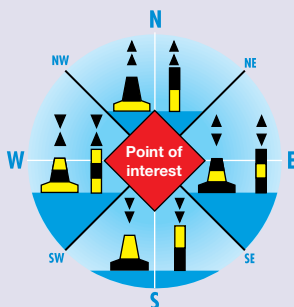
VQ(6)+LFl.10s



South cardinal mark



North cardinal mark

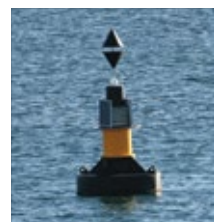


- Pass on northern side of mark.
- Horizontal black band - top of buoy
- Topmark - pointing up 12 o'clock on clockface.
- Light - white. Continuous quick or very quick flashes.

Q



VQ



East cardinal mark

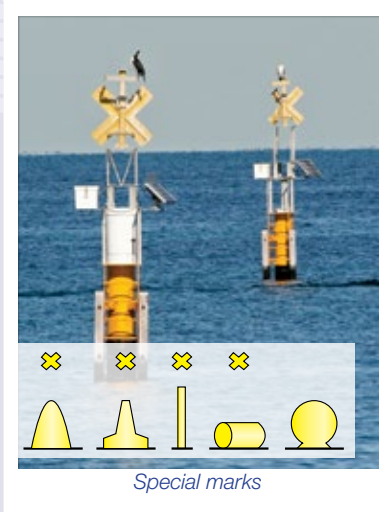
- Pass on eastern side of mark.
- Horizontal black band - top and bottom of buoy.
- Topmark - pointing outwards.
- 3 o'clock on clockface.
- Light - white.
- 3 quick or very quick flashes.

VQ(3)5s **Q(3)10s**



Special marks

As the name suggests, special marks indicate a special area or feature, for example, 'no-boating' zones or speed restricted areas such as the fish farms at Port Lincoln. You may be able to identify what is marked by checking on an up-to-date navigation chart.



- Colour - yellow.
- Shape (buoys) - optional.
- Topmark (if fitted) - single yellow 'X'.
- Light (if fitted) - yellow. May use any rhythm not used for white lights, for example, a single yellow flash - FI(Y), or four yellow flashes - FI(4) Y4s.

Isolated danger marks

FL(Y)

FI(4) Y



Port

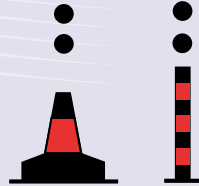


Starboard

If these shapes are used they will indicate the side on which the buoys should be passed

Isolated danger marks identify a danger that has navigable water all around it. For example, the ballast ground in the North Arm of the Port Adelaide River has an isolated danger mark. As the marks are not always positioned centrally over the danger, do not pass too close.

- Colour - red and black horizontal stripes.
- Shape (buoys) - pillar or spar.



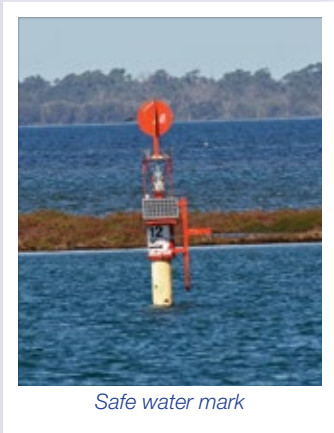
- Topmark - two black spheres positioned vertically.
- Light (if lit) - white. Flashes in groups of two - FI(2); the association of two flashes and two spheres may be a memory jogger.

FI(2)



Don't pass too close to a danger mark

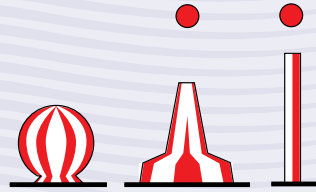
Safe water marks



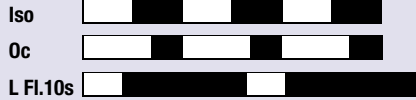
Safe water mark

Safe water marks indicate navigable water all around. They can be used as a mid-channel, landfall or centre line buoy, for example the centre line safe water mark at Murray Bridge.

Be aware that large commercial vessels may pass close by these marks.



- Colour - red and white vertical stripes.
- Shape (buoys) - spherical, pillar or spar.
- Topmark (if fitted) - red sphere.
- Light - white. May use isophase (Iso) or occulting (Oc) rhythms, or a single long flash (LFI).



Arrows indicate the correct navigation past the buoys, marks and beacons shown.

Other buoys and marks

Lead marks

Lead marks define the correct course in waters containing navigational hazards and are often used to mark approaches to navigational channels.

Lead marks are made up of two separate triangular marks: one placed in the foreground and one further back and higher on the shore. The rear lead is often inverted (upside-down). Leads may also be lit at night. By lining up the apex (point) of each triangle - or at night lining up the lights on each lead - you can find the centre of the channel. You will need to adjust your course slightly to starboard so that you then steer the correct course on the starboard side of the channel.

'Port closed' or 'channel blocked' mark

This signal may be placed on shore, on a floating buoy, or on a vessel blocking the channel and is used to indicate where a regular waterway is no longer passable, whether temporarily or permanently.



By day shows:

- Three black shapes (ball, cone pointing up, ball) in a vertical line.

By night shows:

- Three round lights (red, green, red) in a vertical line and visible all-round.

Zone signage

Yellow buoys are used in South Australian waters to indicate controls in restricted areas, often for slower speeds.



Signals on vessels

Daymarks

Daymarks are signals used during the day on a vessel to indicate its activity. They are used in all weather conditions; however, when visibility is restricted the appropriate lights should also be shown.

The common daymarks for the various vessel types and operations follow.

Note: for all the following daymarks and equivalent night navigation lights, each separate part (cone, ball or lights) must be set up to be clearly distinguishable, and are always displayed in a vertical line



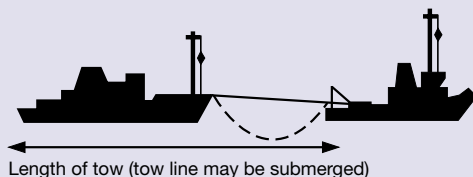
Vessels under power with sails set show:

- One black cone, point down; forward, where best seen; this is so that other vessels can know you're operating as a motor boat and apply give way rules correctly.



Power-driven vessels towing:

- If length of tow is more than 200m, the towing vessel and the vessel being towed shall both display one black diamond, where best seen.



Vessels at anchor show:

- One black ball, forward, where best seen.

Required for vessels over 7m in length at all times.

Vessels less than 7m in length are not required to exhibit the daymark shape when at anchor unless you are in or near a channel or channel approach, or in usual anchorage. (i.e. they are not required if you are well away from regular boating areas).

Note: vessels are not permitted to anchor in a channel unless in an emergency.

Vessels aground show:

- Three black balls.

Not required for vessels less than 12 m long.

This signal does not mean distress or in need of help, but you should navigate with caution.

Vessels restricted in ability to manoeuvre show:

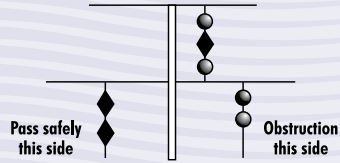
- Black ball, black diamond, black ball.

When at anchor, vessel also shows another, separate black ball.

This signal does not indicate distress or a need for help, but you should navigate with caution.

Vessels engaged in underwater operations or dredging show:

- As for 'Vessels restricted in ability to manoeuvre', plus:
 - Where one side is obstructed, two black balls on that side.
 - On the side where vessels may pass, two black diamonds.



Black balls on both sides indicate that the passage or channel is blocked, and vessels should wait for instructions before proceeding.

Diving operations

A vessel with one or more divers operating from it must display signals indicating this.

The international flag 'A' (refer to image below) is the signal that 'I have a diver below - keep well clear at slow speed'. Other vessels must navigate to avoid injuring the diver or interfering with the vessel, float or buoy. In South Australia, the speed limit is four knots within 50 m of a vessel or buoy displaying a divers flag (flag A).



During the day:

- Vessels 10 m or more in length must display a divers flag, either as a flag or rigid replica.
- Vessels less than 10 m long must display divers flag as a rigid replica, at least 750 mm by 600 mm, either from the vessel or floating buoy.
- A diver operating independently of a vessel must ensure that a rigid replica of a divers flag (at least 300 mm by 200 mm) is displayed from a buoy or float moored within 30 m of the diver or is attached to a line and towed by the diver (a diver must not operate independently of a vessel in a dredged shipping channel within a harbour).

Vessels constrained by their draught to operating in a narrow channel, i.e. unable to change course easily show:

- One cylinder, where best seen.





Vessels not under command show:

- Two black balls.

Not required for vessels less than 12 m long. This signal does not mean distress or in need of help, but indicates an inability to manoeuvre.



Fishing vessels underway or at anchor (when trawls, nets or other gear are in the water) show:

- Two black cones, points inwards.

The following table shows minimum distances of visibility on a clear, dark night.

Light	Minimum visibility for length of vessel (nautical miles)		
	Less than 12m	12-50m	50m and over
Masthead light	2	5*	6
Sidelight	1	2	3
Sternlight and or towing light	2	2	3
Allround light (white, red, yellow or green)	2	2	3

Navigation lights

If navigation lights are fitted to your vessel the navigation lights must be fitted in accordance with the *Prevention of Collisions at Sea Regulations* or the *River Murray Traffic Regulations*.

Vessel lights must be displayed from sunset to sunrise and in restricted visibility during daylight. To meet legal requirements the lights must be visible through both a minimum arc of visibility (measured in degrees of a circle) and for a minimum distance.

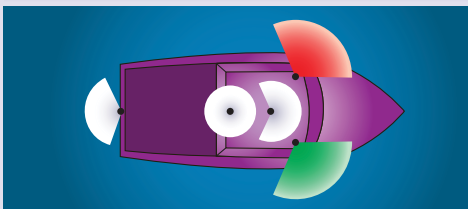
The following table shows the angle of visibility for each light.

Light	Angle of visibility (degrees)
Masthead light	225
Sidelight	112.5
Sternlight and/or towing light	135
All-round light (white, red, yellow or green)	360

* Where the length of a vessel is 12-20 m, and the height is at least 2.5 m above the gunwale, the minimum masthead light visibility is three nautical miles.

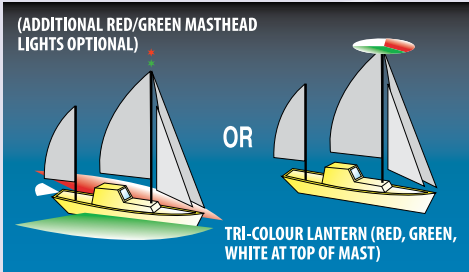
The masthead and/or all-round white light must be fitted on the boat's centre line (bow to stern), if possible.

This section describes the required navigation lights, with diagrams showing which lights are visible from various angles to help with on-water recognition. This is important so you know when to give way and when others should give way to you.



Sailboats and row boats

Sailing vessels underway show:

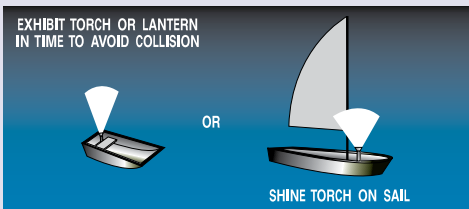


- Sidelights and sternlight.
- If vessel is less than 20 m long, one tricolour lantern (green, red, white) at or near the top of the mast.
- Option addition – two all-round lights in a vertical line (red at top; green below) at or near the top of the mast.

When using its engine, a sailing vessel is considered a power-driven vessel and must show the appropriate shapes by day and lights by night. A tricolour lantern must not be used by a vessel operating under power.

Sailing vessels underway (not using power) less than 7 m long, or boats under oars show:

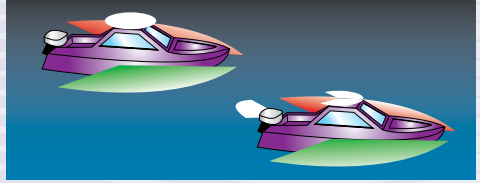
- If practicable, any of the combinations for 'Sailing vessels underway'.
- An electric torch or lighted lantern with white light and used in time to prevent a collision.



Power-driven vessels

Vessels under 12 m long underway show:

- Sidelights, masthead light and sternlight.
- Sidelights and all round white light.



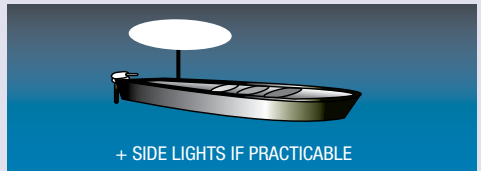
Note: if vessel is less than 12 m long, sidelights may be a combined lantern on the fore and aft centreline.

Configuration

- The centre of the masthead light or all-round white light must be carried at least 1 m high than the centre of each sidelight.
- The centre of each of the sidelights in a combined lantern must be at least 1 m below the centre of the masthead light.

Vessels under 7 m long and with a maximum speed less than 7 knots show, while underway:

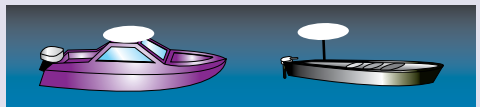
- All-round white light.
- If practicable, sidelights.



Recreational vessels at anchor show:

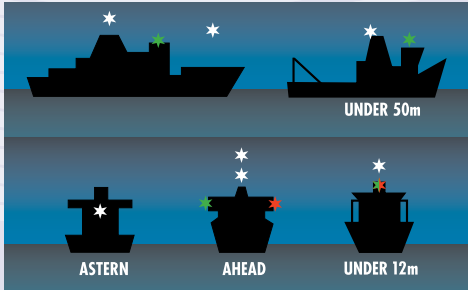
- All-round white light.

If drifting (underway but not making way), the vessel must display sidelights, masthead light and sternlight.



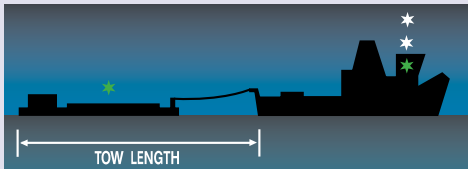
Larger power-driven vessels

Vessels less than 50 m long show while under way:



- Sidelights, masthead light and sternlight.
- Optional addition - second masthead light abaft and higher than the first.

Vessels towing another vessel show, in addition to standard navigation side and sternlights:



- Yellow towing light above sternlight; plus:
- If tow length less than 200 m - two masthead lights.
- If tow length more than 200 m - three masthead lights.
- Towed vessel shows - sidelights and sternlight.

Vessels at anchor show:



- If less than 50 m long, optional addition - second (lower) light at stern.

- If more than 50 m long – two all-round lights, the forward one higher than the aft.
- If more than 100 m long – as for vessels more than 50 m long, plus decks must be illuminated.

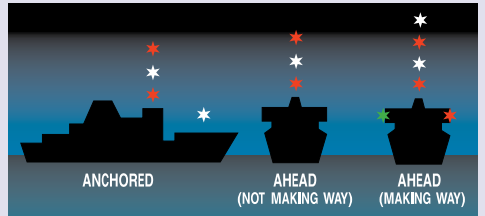
Vessels aground show:



- Anchor lights.
- Two all-round red lights.
- All-round red lights not required for vessels less than 12 m long.

This signal does not mean distress or in need of help, but you should navigate with caution.

Vessels restricted in ability to manoeuvre show:

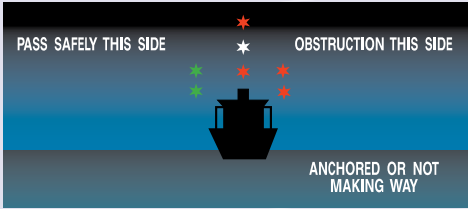


For example vessels engaged in: flying aircraft, underwater operations such as diving and cable laying, replenishment at sea, servicing navigation marks, or towing - where manoeuvre is restricted by the tow.

- When underway but not making way - three all-round lights in a vertical line (top and bottom red and middle white).
- When underway and making way - as above, plus masthead lights, sidelights and sternlight.
- When at anchor - three all-round lights in a vertical line (as when not moving) and anchor lights.

This signal does not mean distress or in need of help, but you should navigate with caution.

Vessels engaged in underwater operations or dredging show:

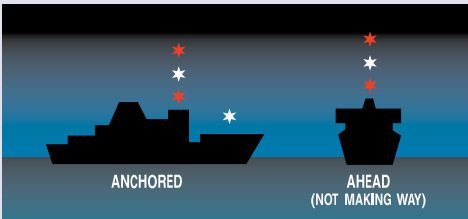


- As for 'Vessels restricted in ability to manoeuvre', plus:
 - Two all-round red lights on the side of the obstruction.
 - Two all-round green lights on the side that vessels may pass.

Vessels engaged in diving operations show:

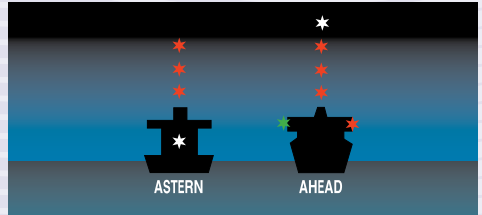


- Illuminated divers flag (or for vessels less than 10 m long, a replica as previously described).



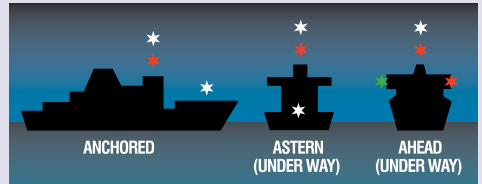
- The signal for stationary 'Vessels restricted in ability to manoeuvre' — three all-round lights in a vertical line (top and bottom red and middle white).

Vessels constrained by their draught show:



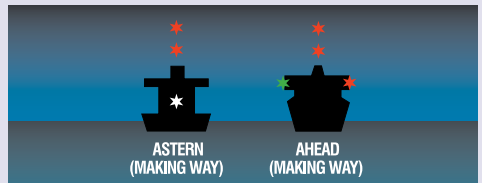
- Sidelights, masthead light and sternlight.
- Three all-round red lights in a vertical line below the masthead light.

Pilot vessel on duty shows:



- Two all-round lights, the top white and bottom red, plus:
 - When at anchor, anchor light or lights.
 - When underway, sidelights and sternlight as well as the white and red all-round lights.

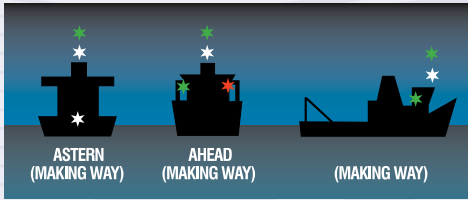
Vessels not under command show:



- Two all-round red lights, plus when underway:
 - sidelights and sternlight.

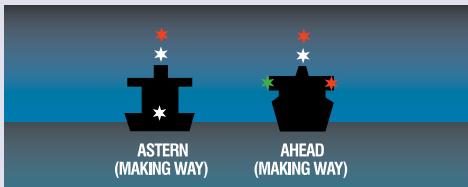
Not required for vessels less than 12 m long. This signal does not mean distress or in need of help, but you are required to keep clear.

Commercial fishing vessels trawling show:



- Two all-round lights, the top green and bottom white, plus, when underway:
 - Sidelights and sternlight.
 - For vessels less than 50 m long, optional addition—rear masthead light.

Fishing vessels (other than trawling) show:



- Two all-round lights, the top red and bottom white, plus, when underway:
 - Sidelights and sternlight.
 - If outlying gear extends more than 150 m horizontally from vessel—one all-round white light in direction of gear.

Vessels working in cables (for example River Murray ferries) show:



- All-round red light at each end.
- All-round green light above the red light at the forward end to indicate the vessel's direction.

Vessels operating near a vehicular ferry must keep clear and proceed with caution. A four-knot speed limit applies within 100 m either side of the ferry crossing.

Radio distress, urgency and safety signals

This section covers the three types of radio priority signals at sea: distress, urgency and safety.

Types of marine radios and where to get training on their use are discussed in [chapter 4, Safety equipment, Standards and features](#).

The specific meanings and uses of each signal are outlined below. Understandably, there are strict rules governing their use.

Distress signal

- Given priority over all other calls.
- Only to be used when in grave and imminent danger.
- Immediate assistance is requested.
- Should only be sent on the authority of the person in charge of the vessel.
- Identified by the word 'MAYDAY', spoken three times.

Urgency signal

- Given priority over other calls, except distress calls.
- An urgent message about the safety of the vessel or a person.
- Should only be sent on the authority of the person in charge of the vessel.
- Signal and message are normally sent on the distress frequency.
- Transmission of the message is transferred to a working frequency or channel if it:
 - Is long.
 - Concerns an urgent medical case.
 - Needs to be frequently repeated.
- Identified by the words 'PAN PAN', spoken three times.

Safety signal

- Used for important navigational or weather warnings.
- Other ship stations' radio operators must not interfere with the message.
- Signal and call to all stations are normally made on the distress frequency.
- Transmission of the message is on a working frequency or channel.
- Identified by the word 'SÉCURITÉ', pronounced 'SAY-CURE-E-TAY' and spoken three times.

How to make the calls

The calling and distress frequencies are:

- VHF marine radio – channel 16.
- MF/HF radio – 4125, 6215 or 8291 kHz.
- 27MHz radio – channel 88 (27.88MHz).
- When making a call, take the following actions:
 - Identify yourself by radio call sign and/or vessel name.
 - Keep messages brief and clear.
 - Avoid non-essential remarks.
 - Avoid offensive language.
- When signalling distress, give brief details of:
 - Your position.
 - The nature of the distress.
 - Type of vessel.
 - Number of people on board.

- Use the phonetic alphabet and figure code if reception is poor or the message is unclear.
- Always end an exchange of transmissions with the word 'out'.
- Repeat the process as often as necessary; boats will respond once the message is given if they can help.
- If unsuccessful, try any available frequency.
- Stop transmitting if requested by a coast station.
- When the call is complete, return to the relevant emergency frequency for your type of marine radio as above.
- Report in when the emergency is resolved or assistance is given.

If you hear what appears to be an unanswered distress call, offer whatever assistance possible, even if only to try to relay the message on.

It is an offence to use a transmitter to cause serious alarm or affront (i.e. 'hoax' calls etc), or to harass someone.

For non-distress messages, switch to a working channel once you have made contact.

Phonetic alphabet for Marine Radio

RESPECTING OUR WATERS

MM 104 04/13

A ALPHA	N NOVEMBER
B BRAVO	O OSCAR
C CHARLIE	P PAPA
D DELTA	Q QUEBEC
E ECHO	R ROMEO
F FOXTROT	S SIERRA
G GOLF	T TANGO
H HOTEL	U UNIFORM
I INDIA	V VICTOR
J JULIETT	W WHISKEY
K KILO	X X-RAY
L LIMA	Y YANKEE
M MIKE	Z ZULU

DISTRESS

MAYDAY three times

If your vessel is threatened by grave and imminent danger and you are requesting immediate assistance.

URGENCY

PAN-PAN three times

If you have a very urgent message concerning the safety of your vessel or the safety of a person on board.

SAFETY (SECURITE)

SAY-CURE-E-TAY three times




To broadcast an important navigational warning to other stations. It may include a weather warning.

Sound and light signals





Sound and light signals are an established way of communicating at sea, so it's important to get to know them. This section provides an overview of the most common signals.

In signalling, a ship's 'whistle' or other sounding device is used to make short (about 1 second) or long (4-6 second) blasts to indicate actions to other vessels. 'Whistle' signals can also be supplemented at night by lights (for example, one short whistle blast would mean the same as one short flash of light).



The type of signal used depends on the length of your vessel.





- 100 m or more - use whistle, bell and gong.  
- 12 m to less than 100 m - use whistle and bell. 
- Less than 12 m - use any effective sound.

Manoeuvring and warning signals

- I am altering my course to starboard - one short blast. 
- I am altering my course to port - two short blasts. 
- I am operating astern propulsion (in reverse) - three short blasts. 
- To another vessel, when their intentions are unclear, or you doubt they're taking enough action to avoid a collision - at least five short and rapid blasts. 

Warning signals - vessels in narrow channels




- I intend to overtake on your starboard, please alter your course to permit me to pass - two long and one short blast. 
- I intend to overtake on your port, please alter your course to permit me to pass - two long and two short blasts. 

- Agreement by the vessel being overtaken - one long, one short, one long and one short blast. 
- A vessel in doubt about the intentions or safety of the overtaking vessel's manoeuvre - five short and rapid blasts. 
- A vessel nearing a blind bend in a channel - one long blast. 
- Response from vessel on the other side of bend - one long blast. 

Restricted visibility signals

All vessels operating in limited visibility should operate at a safe speed and be prepared to stop or alter course. If you hear another vessel's warning signal forward of the beam, stop or reduce speed to a minimum until the other vessel has moved away from your course.

The following signals are used in restricted visibility both during the day and at night.

- Power underway and making way - one long blast every two minutes. 
- Power underway, and not making way - two long blasts about two seconds apart at least every two minutes. 
- A vessel that is of any of these conditions:
 - Not under command.
 - Restricted in her ability to manoeuvre.
 - Constrained by her draught.
 - A sailing ship (not under power).
 - Fishing.
 - Towing or pushing - one long and then two short blasts at least every two minutes. 

- Vessel towed (if manned) immediately after the signal from the vessel conducting the tow - one long and three short blasts at least every two minutes.



- Pilot vessel on duty - may also sound four short blasts in addition to applicable signals as above.



- Vessels at anchor:

- Vessels less than 100 m long - one short, one long and one short blast, plus ring bell rapidly for five seconds every minute.



- Vessels 100 m or longer - one short, one long and one short blast, plus ring bell for five seconds every minute from the bow and then immediately hit gong for five seconds every minute from the aft.



- To warn approaching vessels of your position - one short, one long and one short blast.



- Vessels aground:

- As for 'Vessels at anchor', but preceded and followed by three separate and distinct bell strokes and if over 100m three gong.



- Vessels less than 12 m long, if unable to make the appropriate signals, must make another effective sound signal at least every two minutes.

Chapter 7. Self-check questions

1) When leaving a harbour, or travelling downstream in a river or channel, on which side should you keep a red (port) channel marker?

- On the port (left) side of the vessel.
- On the starboard (right) side of the vessel.
- Whichever side is convenient.

2) When entering a harbour, or travelling upstream in a river or channel, on which side should you keep a green (starboard) channel marker?

- On the starboard (right) side of the vessel.
- On the port (left) side of the vessel.
- Whichever side is convenient.

3) If you see this flag in the water or on a vessel, what does it indicate?



- Dangerous cargo on board; keep clear.
- Diver below; slow to four knots within 50 m.
- Restricted area; authorised vessels only permitted.

4) If a vessel approaches at night displaying this combination of lights, what type of vessel is it?

- A vessel powered by an engine.
- A dredge.
- A sailing vessel.



5) If you see a vessel displaying day marks that show it to be a dredge, on what side of the vessel is it safe to pass?

- On the port (left) side of the vessel.
- On the starboard (right) side of the vessel.
- On the side displaying two black diamonds.
- On the side displaying two black balls.

6) Of the following, when is a "MAYDAY" radio signal most appropriate?

- When your boat is on fire and sinking.
- When you have lost power and are drifting.
- When you notice unmarked rocks or a wreck submerged just below the water's surface.

