



أبوظبي البحريّة  
ABU DHABI MARITIME

# YOUR GUIDE FOR SAFE BOATING

Second Edition 2020



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# Introduction

**Knowing the basics of boating safety will give you peace of mind and let you make the most of your time on the water. Whether you are a sailor, fisherman diver or water sports enthusiast there are some basic rules and information set out in this Guide that you need to be aware of before setting out.**

If you, your family or friends are new to boating then you should thoroughly familiarise yourselves with the following pages. Treat this Guide as a piece of safety equipment and keep it on board your boat, refer to it and apply what you have learned. If you are an experienced sailor, use this Guide as a refresher for even safer boating.

**In the event of discrepancies between this Guide and the Regulations, then the regulatory text takes precedence.**



# Common sense tips for maximising your personal safety

Recreational boating is supposed to be fun, so why do many people die every year in boating accidents? That's not even counting the cases involving serious personal injury.

Tragically, almost all boating deaths and injuries are preventable. Most boating accidents are the result of a series of smaller things going wrong. A simple matter of wearing your lifejacket at the proper time could save your life.

- Use common sense when you are out on the water.
- Going on an extended boat trip? Coastal sailing away from major traffic routes? Operating a boat, including personal watercraft, is not the same as driving a car. Be prepared. Before you go boating, there is a minimum that you need to know.
- Your boat should be operated in a safe manner and should have all the required equipment on board in good working order. The same applies if you loan your boat to someone else.
- Always travel at a safe speed, maintain a constant lookout and use every available means to determine if there is a risk of a collision or grounding.
- Reckless and inattentive operation of a recreational boat is prohibited, namely, one who lacks attention and alert, or does not observe the safety of others is not allowed to operate a recreational boat.

## Safety of Individuals Onboard

- Provide all guests with a safety briefing before heading out. Guests should be told where the safety equipment is kept and how to use it.
- Ensure that the number of persons aboard does not make the vessel unsafe.
- Keep the vessel clear of any area set aside for the purpose of a specific water sport or recreational activity in which they are not participating.
- When the boat is in congested areas bear in mind its handling limitations and keep an eye on the presence of other vessels in the vicinity.
- No person should jump or dive from a boat that is underway.
- No person should extend any part of their body over the bow, side or stern of a boat that is underway.

These are just a few things to consider before setting out in your boat that can help avoid possible risks and danger on the water.



### General Tips When Sailing in Your Boat:

- Keep a constant lookout for close or surrounding things and keep away from the commercial vessels nearby.
- Keep a safe distance between the sailing vessels and your boat and sail in a clear area where captains of large vessels can see you. You should be at least one nautical mile away from them.
- Do not anchor in the navigational waterway or channel.
- Be aware that boats made of aluminium are difficult to be seen during the day, especially in foggy, cloudy and poor vision weather.
- Always wear clothing that can be seen after sunset and during poor vision.
- Ensure that all the correct navigational lights are on.
- Ensure that the navigational lights are in good working order to help inform others of your boat type, length and direction.
- Always ensure that anyone who can see the navigational lights of your boat recognises this previous information.

# Marine Vessels Licensing

## Unified Marine Permit Center (UMPC)

The Unified Marine Permit Center (UMPC) was established to facilitate the registration and licensing of marine vessels, especially leisure and fishing vessels, in the Emirate of Abu Dhabi with the use of a unified centre.

The rationale of the UMPC is to improve and coordinate data exchange by establishing unified database through which all marine vessels are registered and given a unified number.

The Unified Maritime Permit Center is made up of five government entities which work under one roof to provide the following maritime services:

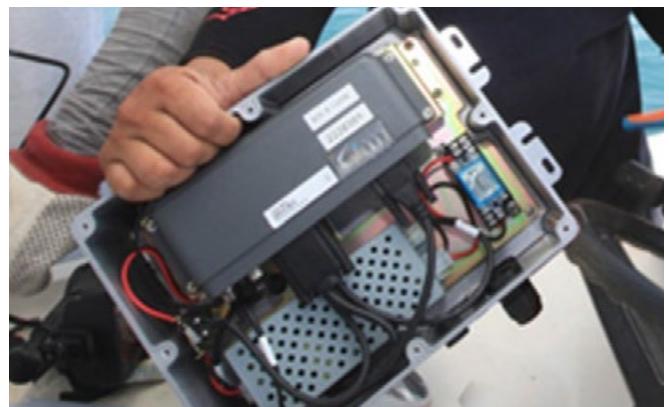
- Issuance of leisure or fishing licenses for UAE nationals and expatriates
- Issuance of commercial fishing licenses
- Issuance of leisure fishing licenses
- Issuance and replacement of digital marks
- Conducting technical inspection for marine vessels
- Installation of the maritime security and safety device on vessels

### Licensing Requirements for Marine Vessels and Required Documents

For more information, please visit  
Federal Transport Authority Land-Marine  
[www.fta.gov.ae](http://www.fta.gov.ae)

### Maritime Safety & Security Device

The maritime security and safety device is considered one of the most modern methods that facilitate quick access to the site of reported emergency calls in the sea received via the emergency number (996).



Categories exempted from the installation of a maritime security and safety device:

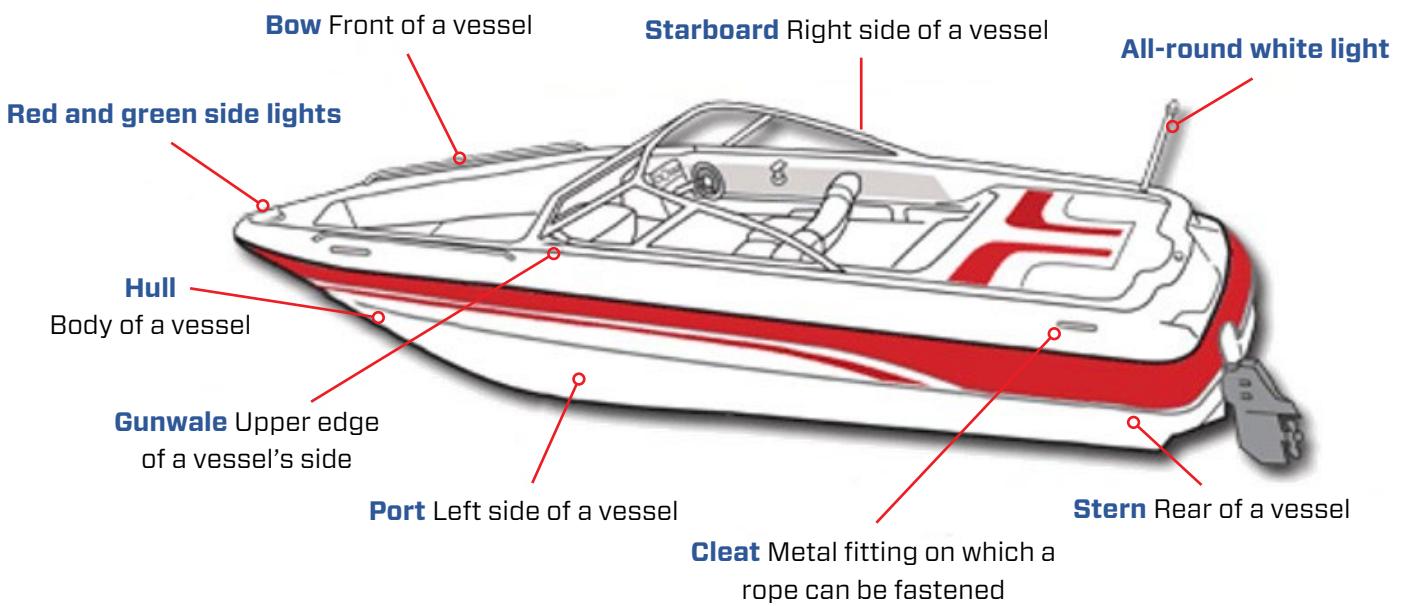
- Maritime means, length less (12) feet.
- Maritime means, operating with a manual engine (without key)

For more information on the Maritime Safety & Security Device, please visit the website of the Critical Infrastructure and Coastal Protection Authority (CICPA); [www.cicpa.ae](http://www.cicpa.ae)

# Know Your Boat

Boats come in many styles and shapes, but the names of the different parts remain consistent. Every boat operator should know the following terms and definitions:

## Vessel Parts From Side View



**Stern** Rear of a vessel

**Hull** Body of a vessel

**Beam** Maximum width of a vessel

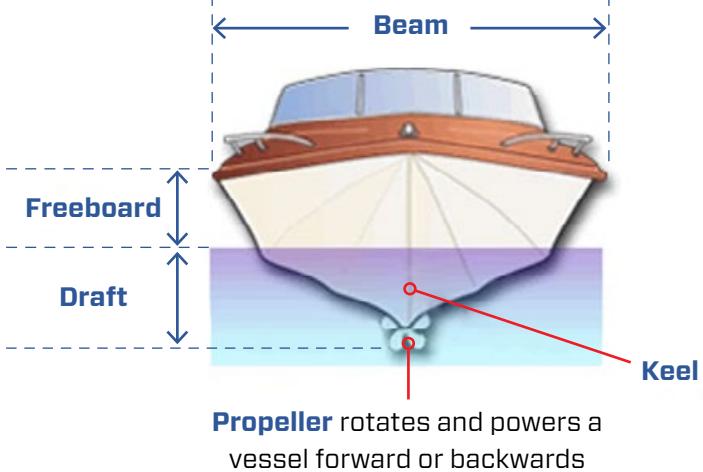
**Starboard** Right side of a vessel

**Gunwale** Upper edge of vessel's side (generally pronounced gunnel)

**Navigation Lights** Include all-round white light and red and green sidelights

**Port** Left side of a vessel

## Vessel Parts From Front View



**Freeboard** Distance from water to lowest point of the boat where water could come on board.

**Draft** Depth of water needed to float a vessel.

**Propeller** Rotates and powers a boat forward or backward.

**Keel** Main centre line (backbone) of a vessel or the extension of hull that increases stability in the water

**Cleat** Metal fitting on which a rope can be fastened

# Pre-Departure Checklists

Recreational boating should be fun, safe and hassle-free. No matter if you own, rent or are borrowing a pleasure craft, make sure that it is in good working order and properly equipped before heading out on the water.

## Inspect your boat

- Inspect your pleasure craft's hull and check for cracks or other damage.
- If you are operating a power-driven pleasure craft check its electrical, fuel, propulsion and cooling systems.
- Make sure the throttle is operating smoothly and is not sticking or binding.
- Make sure the steering is working properly.
- Check the oil and fuel levels.
- Check all hoses and lines for leaks or cracks and replace if necessary. Make sure all clamps and belts are secure and in good shape.
- Inspect, clean and replace spark plugs if necessary.
- Check and change oil and water filters if necessary.
- Check the battery's charge and its fluid levels.
- Be certain the drainage plug is in place.
- Verify the load on your boat is well distributed.

## Make sure your boat has what it needs for a safe trip

- Are there enough flotation devices of appropriate size for everyone on board?
- Is all of the required equipment in good working order?
- Do you have ample reserves of fuel for the trip or will you need to refuel? A good rule of thumb for fuel is: one-third for the trip out, one-third for the return and one-third as reserve.
- Do you have maps and charts?

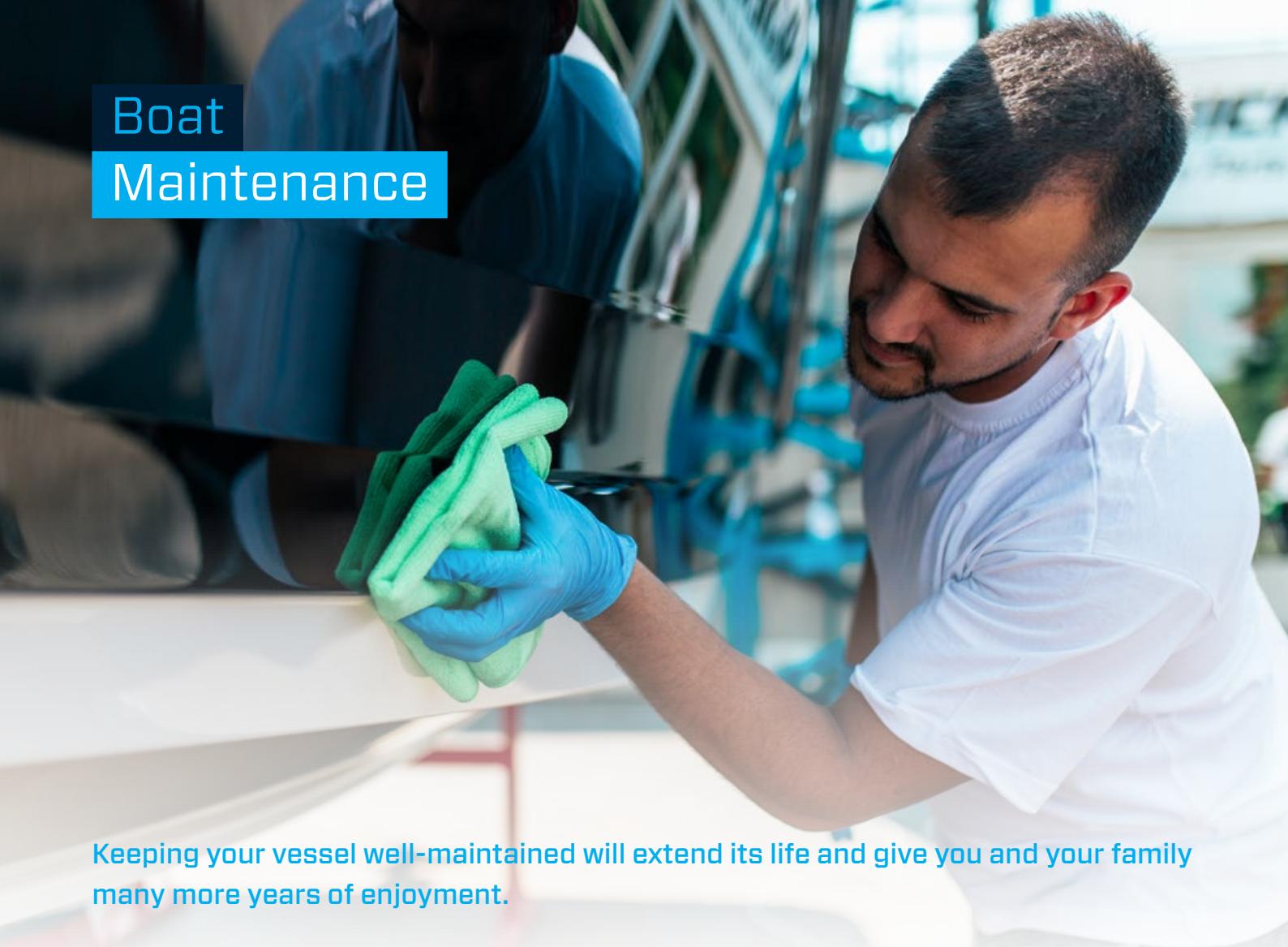
## Take a minute to consider your safety preparedness

- Do you have a first aid kit, basic tools and spare parts?
- Have you checked the weather forecast?
- Are there any local hazards or boating restrictions?
- Did you tell somebody that you are sailing and when do you expect to return?

## Prior to Sailing

- Inform government agencies responsible for Maritime Safety about your intention.
- Check weather forecast on [www.admaritime.ae](http://www.admaritime.ae)
- Test the transponder supplied by the concerned authority.

# Boat Maintenance



Keeping your vessel well-maintained will extend its life and give you and your family many more years of enjoyment.

## Hull Maintenance

- Examine the interior and exterior of the hull when it is out of the water.
- Check for oxidation, a common problem on aluminium hulls that appears as white powder spots. Use fine sandpaper on oxidised areas until spots are replaced by bright shiny metal.
- To protect the environment, use only environmentally safe, non-phosphate detergents to remove oil and algae from fibreglass hulls. Avoid abrasive materials, which can remove the shiny top layer (gel coat). Patch holes immediately with a fibreglass patching compound.
- Always close the holes in the hull made of fibreglass and use materials made especially for this purpose.
- Check through-hull fittings to make sure they are not cracked or leaking.

- Remove all puddles from the interior before and after every outing.
- Store vessels in a dry area out of the sun. If you must store the vessel for a long period of time, place the trailer on blocks to preserve the tyres. Keep the vessel covered, leaving an opening to circulate air. Hang canoes upside down.
- Leave small ventilation vents in the boat and turn its cover upside down.
- Clean all lines (ropes). Dirt and sand cause deterioration. Keep lines out of the sun when not in use, and replace weakened or fraying lines.
- Clean sails with a soft brush. Examine them for small tears or open seams that can be repaired by taping or sewing.
- Refer to the owner's manual for guidance on hull maintenance.

## Engine Maintenance

**Keeping your boat well-maintained is very important so always schedule regular maintenance for the engines:**

- Keep your engine clean and tuned properly. Refer to your owner's manual for a maintenance schedule.
- Check the oil and fluid levels before every outing. Change the oil according to the owner's manual. As the engine ages, increase the frequency of oil changes. Clean oil extends engine life.
- Tighten battery connections. Clean battery terminals by disconnecting the terminals and removing corrosion with a wire brush. If the battery is weak when you start the engine, recharge it.
- Inspect the engine for anything that shows signs of wear or requires tightening, such as hoses, belts, and bolts. Make sure everything is fitted properly, including the engine cover.
- Never use automotive electrical parts. Use marine parts only. Use of automotive parts rather than sealed marine parts (such as alternators, starters, fuel pumps, and other electrical parts) could cause a spark that could ignite a fire.



# Fuelling

Raw fuel is extremely harmful to the marine environment and its vapours create a fire hazard.

Follow these procedures step-by-step, when refuelling.

- Moor your boat securely to prevent spillage.
- Shut off all engines.
- Send guests ashore.
- Extinguish all open flames.
- Do not smoke while refuelling.
- Turn off electrical switches, power supplies and avoid using electrical devices such as portable radios.
- Prepare the fire and environmental risk equipment
- Close all windows, portholes, hatches and cabin doors.
- Remove portable tanks from the vessel before refuelling.
- Ground the nozzle against the filler pipe.
- Know the capacity of the fuel tank and do not overfill it — you have a duty to prevent leakage or spillage of fuel into the hull or water.
- Wipe up spillage and properly dispose of the cloth or towel used.
- Operate the engine compartment blower for at least four minutes immediately before starting the gasoline engine.
- Check for vapours from the engine compartment before starting up the engine.



# Safety Equipment

Make sure that you have adequate safety equipment onboard your boat before setting out to sea... IT CAN SAVE YOUR LIFE!

## Lifejackets

PFD Type 1 is a recognised lifejacket. A PFD Type 1 will provide a high level of buoyancy and keep the wearer in a safe floating position.

They are made in high visibility colours with retro-reflective patches and there should be one for everyone onboard the vessel.



## Extinguishers

There are different types of fire extinguisher, each suited to particular type of fire. A dry powder extinguisher is a good general purpose type which will work well on most fires. It needs to be shaken occasionally to prevent the powder compacting.

Fire extinguishers should be kept outside the engine space in places where they can be reached from the open deck or cockpit.

Ensure all on board know where the extinguishers are stowed and how to use them.

It is important to protect fire extinguishers from salt spray and the elements.

Have them serviced regularly.

Under no circumstances should water be used on fuel or electric fires.



## Distress Flares



### Orange smoke flares

Which can be seen for up to 4 km (10 km by aircraft) should be used in daylight to pinpoint your position



### Red Handheld Distress Flares

Which have a visibility range of 10 km, are designed for use at night but can also be seen during the day.



### Parachute Distress Rocket

Are designed to fire a single red star to a height of approximately 300 m. The star burns while falling for at least 40 seconds and can be seen from the greatest distance due to its intensity and elevation from sea level.

### Using Distress Flares

- Always delay using flares until you can see an aircraft, or until people on shore or in other boats are in visual range.
- Keep flares away from fuel and combustibles.
- As the contents of flares attract moisture, make sure you store them in an accessible but dry place.
- Be prepared – ensure everyone on board your vessel knows where the flares are stored and how to use them.
- Ensure that you carefully follow the activation instructions of all flares

# Boat Handling



Always remember that you are legally responsible if you use a recreational boat in a way that causes damages to individuals or properties.

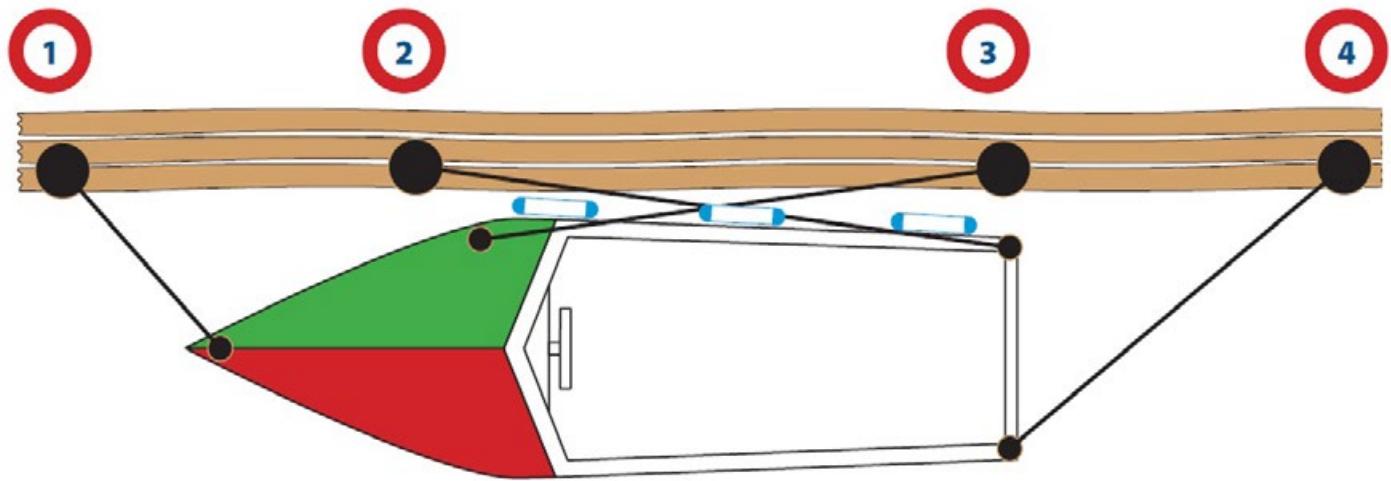
You must understand the operation of your boat before you head out on the water. Always read the instruction manual and become familiar with starting and running your boat.

## Starting Out

- With all motors, make sure the engine is in neutral before starting. Some models can be started in gear.
- With outboards, make sure the hand pump (fuel bulb) is pumped up hard and there are no fuel leaks.
- Before pulling the manual start cord, ensure nobody is sitting where your elbow may strike them.
- Allow the motor to warm up and run smoothly without choke before applying power.
- If you have an electric start, make sure you understand how to use the warm up lever, and ensure the engine is properly warmed before leaving the trailer or berth.
- If the motor is fitted with a cut out cord designed to be attached to your wrist, use it.

## Setting Off

- Start your engine, allowing it to warm up before you set off. Untie any mooring ropes from the jetty or wharf, leaving them tied to the boat, coiled and ready for future use.
- Make sure all ropes are inside the boat and not trailing in the water where they can be caught in the propeller.
- Check that the area is clear of traffic before moving away, taking note of any speed limits or 'no wash' signs that may be in the area.
- Be careful not to create excessive wash when passing people fishing, bathing and moored boats to avoid rocking them about.
- Keep to the right side of the channel - see the section on Navigational Marks for more information.



## Slowing Down and Stopping

- Boats don't have brakes, so give yourself plenty of time to stop.
- First ease off the throttle and move into neutral, using short bursts in reverse gear to slow down and come to a final halt.
- Remember, some crafts are more difficult to handle when in reverse. You may need an occasional forward boost to gain better control.

## Steering

- When steering a boat with a wheel, get to know the feel of the wheel and the rudder position before you set off.
- Using a tiller is simple, though different to a wheel, providing you remember that pushing to the right will make the boat head left and vice versa.
- Be patient and plan ahead – the boat will take a few seconds to respond.

## Tying Up

**To keep your boat secure you need to tie up with rope to both the bow and stern.**

- Many jetties have bollards or rings to tie up to – choose ones a short distance beyond the bow or/ stern of your boat.
- Run your ropes about 45 degrees from your boat, loop them back onto the boat and tie securely, but not too tightly.
- Be aware of the rise and fall of the tide.
- Make sure you know how to use your ropes properly. Keep them coiled, free of knots and ready for use.

## Mooring

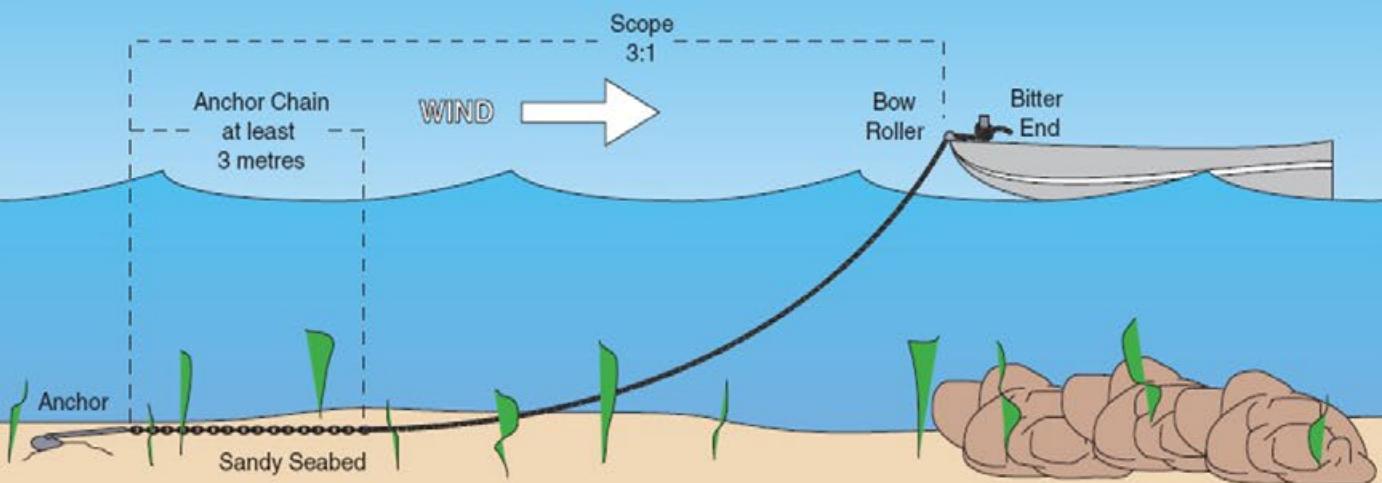
**Slow down almost to a stop**

- Carry out all your manoeuvres as slowly as possible
- Move your boat very slowly, pointing the bow towards the mooring buoy.
- Then use reverse to stop the boat just before the bow hits the buoy.
- Put the engine into neutral.

# Steps to Anchor and Retrieve Your Anchor

Follow these steps to anchor your boat:

- Select an area to anchor with plenty of room. Ideally, it should be a well-protected area with adequate water depth and a sandy or muddy bottom.
- Head slowly into the wind or current to a position upwind or up current of where you actually want to end up.
- When you are at that position, stop the boat and slowly lower the anchor over the bow to the bottom.
- **Never anchor from the stern as this can cause the boat to swamp.** The square stern may be hit by waves, and water will splash into the boat. The motor's weight will add to this problem.
- Slowly back the boat away downwind or down current. Let out about 3 to 5 times as much anchor line as the depth of the water, depending on the wind strength and wave size. Tie off the line around a bow cleat, and pull on the anchor line to make sure the anchor is set.
- After anchoring, take visual sightings of onshore objects or buoys in the water to help you know where your boat is positioned. While at anchor, recheck these sightings frequently to make sure the anchor is not dragging.
- Periodically check connecting knots on your anchor line. When possible, use splices instead of knots. Knots weaken a line more than splices.



The length of the anchor line is dependant on the depth of the water and the prevailing conditions

## Follow these steps to retrieve your anchor.

- Move the boat directly over the anchor while pulling in the line. Pulling the anchor straight up should break it free.
- If the anchor is stuck, turn your boat in a large circle while keeping the anchor line pulled tight.
- When the anchor breaks loose, stop the boat and retrieve the anchor. Never drag the anchor behind the boat.
- Be aware that the boat will swing downwind or down current from the anchor. Allow 'swing room' for any change in wind or current.



# Sea Conditions

## 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 sailor so you should always prepare and plan for the worst and keep a good lookout for tell tale clouds and white cap 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.

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. The main criteria are 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 (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.



## Wind and Waves

General tips for windy weather and high tide:

- The surface of the water can become extremely rough in windy conditions.
- **Always** get a weather report before going out boating.
- **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 a long way from home but on the shore than along way from shore in such conditions.

## Remember When Conditions Worsen:

- Ensure the boat is as watertight as possible
- Ensure all persons are wearing lifejackets
- 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
- Stay with a capsized boat unless you are very close to shore.

# Handle a Boat 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
- The way it is steered. But wave height and direction is perhaps the most critical.

### Break Water:

Water breaks in shallow areas due to rocks or a coral reef located directly under water and always appears during tides. Use a marine chart to locate those shallow areas and inform the nearby boats if you are passing near one of them. Always watch for those shallow areas as they become more risky in fine weather because there is no break water.

## Handling the Boat

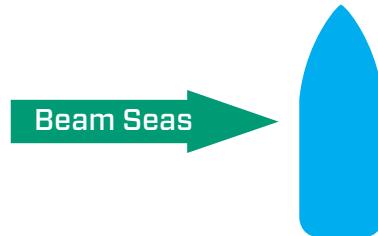
### Head Seas



Generally, the best way to tackle bigger waves is to take them bow on or 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 onto waves is that rolling is increased. The amount of rolling can be reduced by varying the angle to the seas. Watch out for any wave that is 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 or capsizing a real possibility. Steering power is reduced by following seas and constant use of the throttle controls is critical. Attempt to maintain a position on the back of waves, using throttle to keep ahead of waves breaking behind the boat.

# Big Ships and Small Boats

## Remember That Big Ships:

- Are restricted to particular channels and cannot deviate from their set course
- Are restricted in their ability to alter their course due to their size and need a large area to turn.
- Their stern swings out wide when negotiating a turn
- They lose their ability to steer if they travel too slowly.



## The Main Safety Tips For Small Boats Around Big Ships Are:

- Keep well clear
- Do not cross ahead of big ships unless well clear. Even when hundreds of metres away, your boat may disappear from the ship master's view from the bridge.
- Do not cross close astern of a big ship.
- Always keep to the starboard side of a channel.
- Do not cross a channel if you are going to impede a big ship that can only navigate in that channel.
- Maintain a proper lookout at all times.
- Make clear their intentions to an approaching big ship at least one mile in advance of that vessel.
- Do not anchor in the navigation channel.
- Ensure that at all times you can be seen clearly - dull aluminium boats 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 that they are in proper working order as they tell other vessels what sort of vessel you are, what you are doing and where you are going.
- Make sure that if someone 'interprets' your lights that they are getting the right message.

# Collision Prevention Regulations

There are international rules for preventing collisions at sea for ships of all types and sizes. And in this part we will limit ourselves to the rules that are related to leisure boats and what the leisure boat skipper must do to be aware of them.

## 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.

## Visibility

Reduce speed in rain, fog, mist, smoke or glare.

At night, special caution is required because many potential hazards may not be lit or may not be easily seen.

Background shore lighting may confuse you.

## Lookout

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. 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. The master is responsible at all times for keeping a lookout for dangers.

## Manoeuvrability

Wind, waves and currents may adversely affect the manoeuvrability of a 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 the speed limit. For example, if your boat is in a restricted speed zone, it is likely that you are exceeding the speed limit, so slow down.

## 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 depths 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.

# Collisions

## Avoidance

All masters must be aware of the International Regulations for Preventing Collisions at Sea. A summary of these rules is given in this section.

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.

### 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 (i.e. crossing)
- Vessels displaying the special lights and signals shown in this chapter
- Large vessels restricted in their ability to manoeuvre.
- Any vessel being overtaken and
- 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.

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.

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. Always keep a safe distance off 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.

#### Power Driven and Sailing Vessels



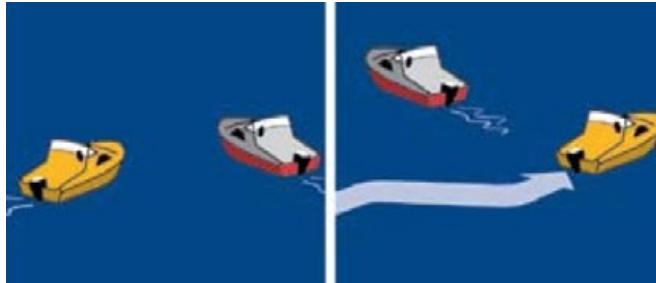
A power driven vessel must give way to a sailing vessel unless the sailing vessel is in the process of overtaking it.

#### 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.

### Power Driven Vessels Crossing



In crossing situations, give way to the right.

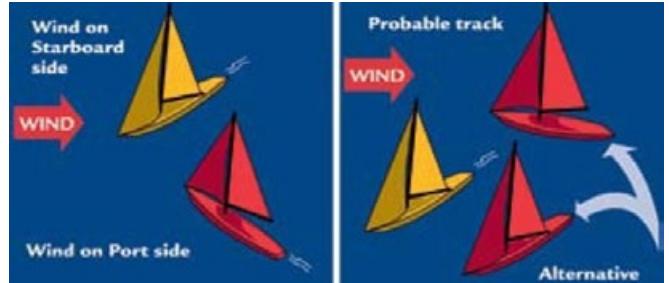
### Vessels Overtaking



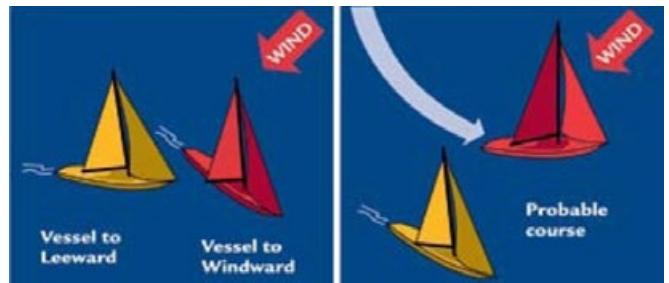
Any vessel (including a sailing boat) which is overtaking another vessel must keep well clear of the vessel being overtaken.

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.



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.

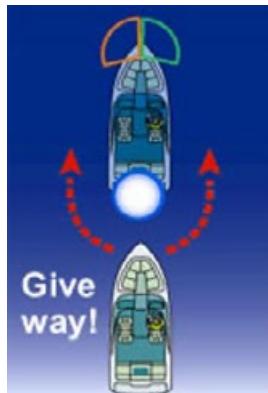
**Note:** If a collision appears inevitable, the skipper of each vessel keeps well clear.

## Power-Driven Vessel Encountering Other Vessels at Night



When you see a white and a green light, you are the stand-on vessel. You should remain alert, however, in case the other vessel operator does not see you or does not know navigational rules.

When you see a red, a green, and a white light, you are approaching another power-driven vessel head-on and both vessels must give way.



When you see only a white light, you are overtaking another vessel or it is anchored. It is the stand-on vessel, whether underway or anchored. You may go around it on either side.

When you see a red and a green light but no white light, you are approaching a sailing vessel head-on and you must give way.



When you see a red and a white light, you must give way to the other vessel! Slow down and allow the vessel to pass, or you may turn to the right and pass behind the other vessel.



When you see **only a green light or only a red light**, you may be approaching a sailing vessel and you must give way. A sailing vessel is always the stand-on vessel except when it is overtaking or in a narrow channel.

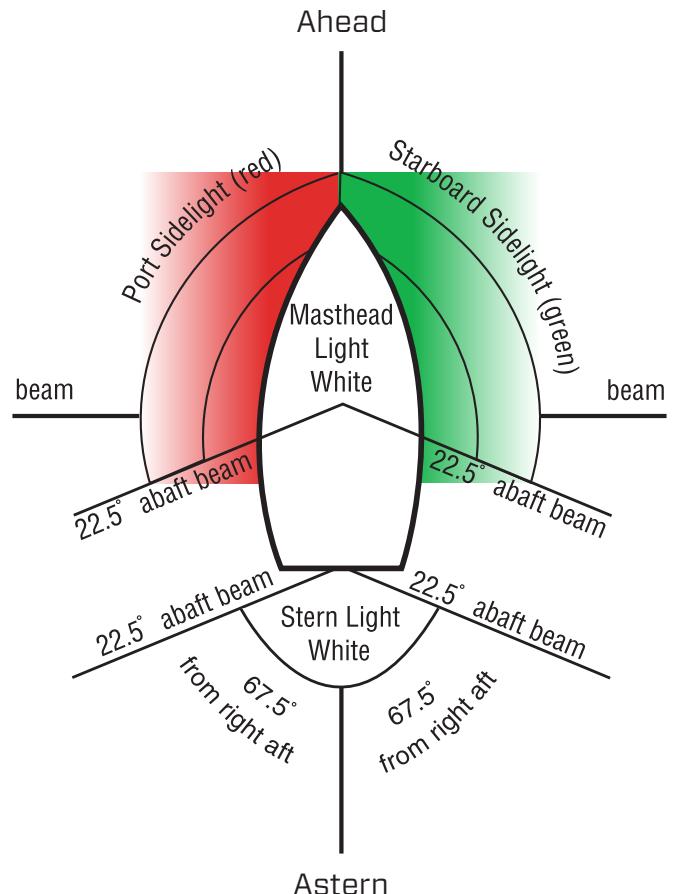
# Navigation Lights for Small Crafts



At night all boats are identified by the pattern of lights they display. This pattern of lights also helps you to know which way a boat is heading.

**All boats must comply with the regulations concerning lighting.**

- Check that the lights fitted to your boat are showing through the correct arc.
- Lights must be switched on from sunset to sunrise and in rain and fog. These are the lighting requirements for all vessels underway:



## Types of Navigation 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 beams of the vessel. 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.

### Stern light:

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.

## Range of Visibility

### Vessels 12 metres to 20 metres

Masthead light – 3 miles

Sidelight and stern light – 2 miles

All round lights – 2 miles

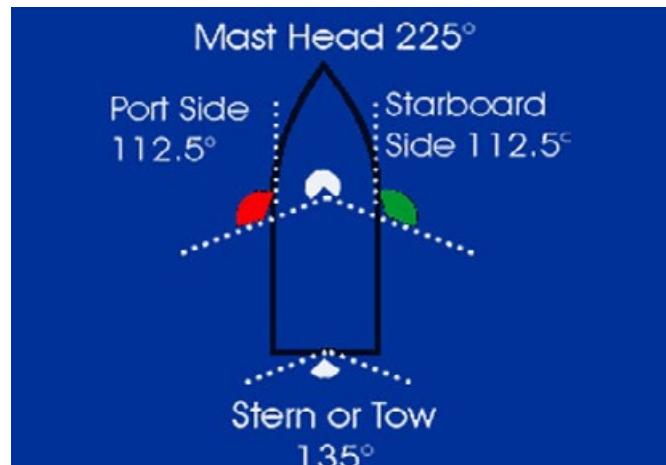
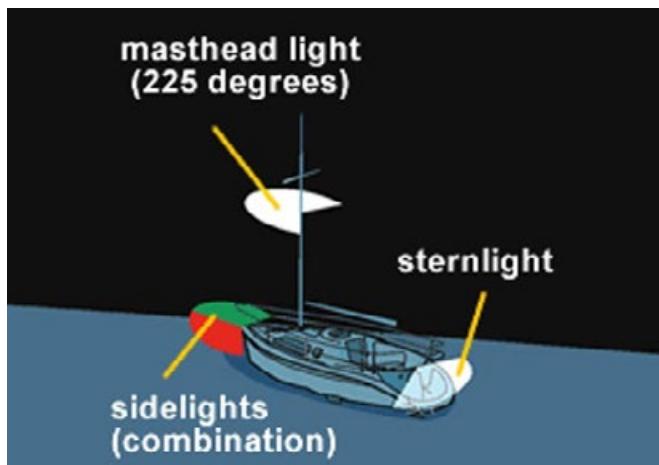
### Vessels under 12 metres

Masthead light – 2 miles

Sidelight – 1 mile

Stern light – 2 miles

All round lights – 2 miles

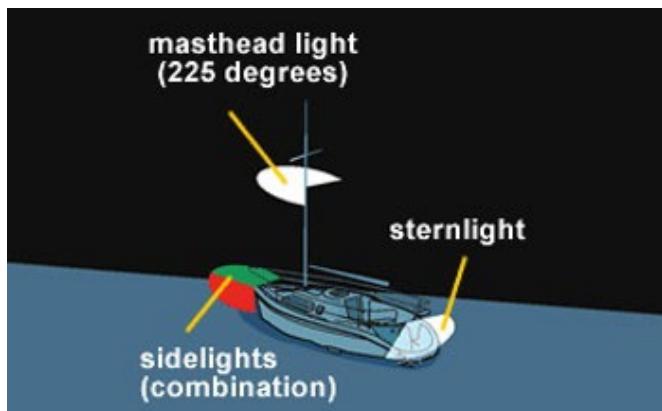


## Placement of Lights

Navigation lights should be positioned so they are not obscured by the vessel's superstructure or interfered with by deck lights.

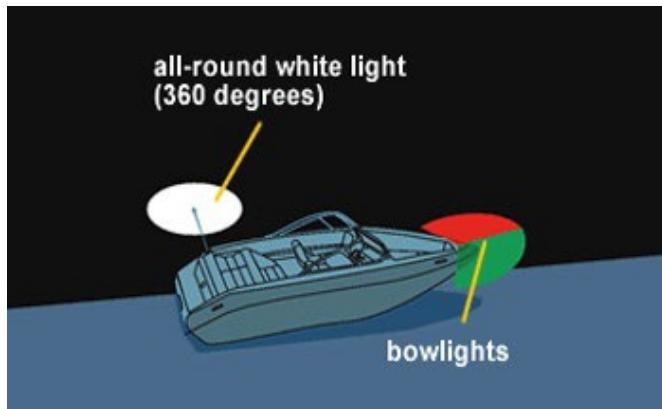
### Powerboats over 12 metres in length

This includes a sailing boat if it is operating its engine. Display red and green sidelights, a white stern light and a white masthead light.



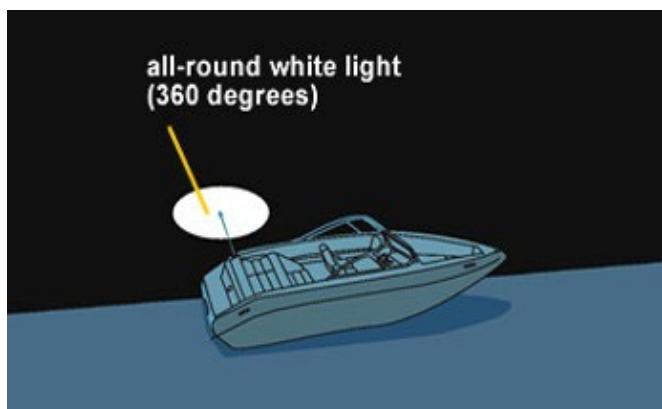
### Powerboats less than 12 metres in length

May combine their stern and masthead lights to one all round white light.



### Powerboats less than 7 metres in length and not capable of speeds over 7 knots

Need only display an all round white light.



## Dinghies

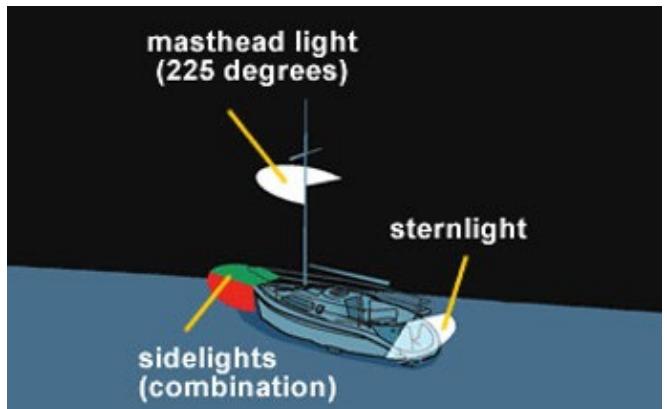
Sail boats should have sidelights and stern lights. All lights can be gathered in one to be fixed on top of the main mast in the boats with length less than 20m as per the illustrative figure.

All non-powered boats under 7 metres in length, such as a rowing dinghy, canoe, kayak or sailboat must show a white light or torch to indicate its presence.



## Sailing boats motoring or motor-sailing

Considered to be powerboats and must display sidelights, a stern light and a masthead light.



# Sound Signals



Special sound signals exist for 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).

- **5 short blasts:**

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

## Restricted Visibility

### Prolonged blast

At intervals of not more than two minutes is the signal used by power-driven vessels when underway.

### Prolonged blast

At intervals of not more than two minutes is the signal used by power driven vessels stopped and making no way through the water

## Warning

### On blast warning signal

It is used, for example, in ships coming from blind curve.

### Five short blasts or more warning signal

It is used in emergencies, to indicate that you misinterpreted the actions taken, or to inform that you did not respond properly to the action taken by the ship or the other boat.

# Distance Off (Vessels Other Than PWC)

## Passing Distance

When travelling at a speed of 10 knots or more you must keep well away from people and objects in the water. There are minimum distances you must keep from obstacles. If you cannot keep these distances you must slow down to under 10 knots.

**The closer you get, the slower you must go.**

### It is recommended to keep:



**30 metres** from any person or anything in the water when you are travelling at 10 knots or more



**60 metres** from a person in the water, if you are towing a water skier or aqua planer

**100 metres** from a dredge or work barge, if you are travelling faster than 4 knots.

There are also special requirements if you are using aerial equipment, such as when Para-gliding and kite-surfing. Before using this type of equipment you should contact your local authority.

## Mooring Areas

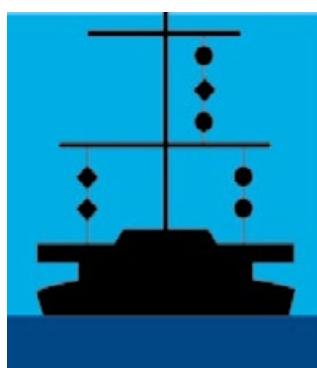
Many of Abu Dhabi waterways have dedicated mooring areas for boats which should keep minimum use of lights at night. Boat operators should be aware of the mooring areas and marine charts for more details.

When passing nearby or through the mooring areas, consider the following rules:

- Slow down and avoid forming waves and splashes due to high speed.
- Keep a lookout to see if there are persons swimming, small boats or floating ropes.
- Keep a distance of no less than 30 m from the mooring ships and keep speed at 10 knots.

## Dredges

Slow down to less than 4 knots when passing within 100m of a dredge and must take proper action to avoid collision.



Safe side to pass  
(Diamonds)



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

## Diving Activities

The diver's flag is recommended to be shown when people are engaged in diving activities from a vessel. It must be no less than 750 mm x 600 mm in size and flown in a vertical position above the superstructure.



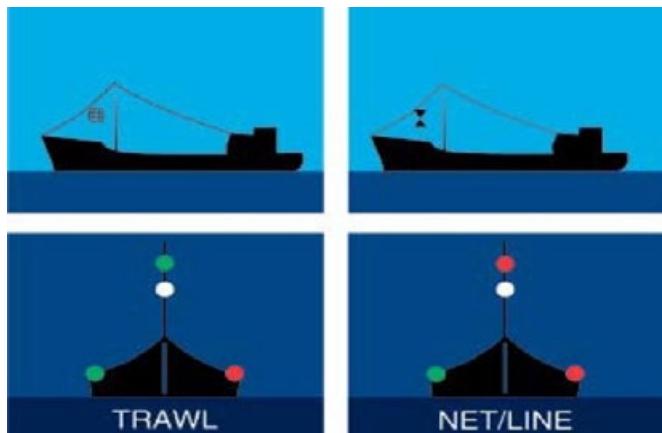
It is recommended that this flag be shown when diving/snorkelling from shore. As divers may not always be in close proximity, it is important that as soon as you see a dive flag you slow down, keep well clear and keep a good lookout. If you are within speaking distance of the dive master get their instructions as to a safe direction to travel to avoid any possible encounters. If there is no dive master about then it's your responsibility to keep a good lookout, at all times, for any divers above and below the surface and then determine a safe distance. If you see a snorkeller in the water, remember to remain a distance of at least 30 metres from them in the water (60 metres if you are towing a water skier or aqua planer).

When you see a diver's flag slow down, keep well clear and keep a lookout.

## Commercial Fishing Boats

Commercial fishing boats 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.



## Narrow channels

**When navigating in a narrow channel or fairway always consider the following:**

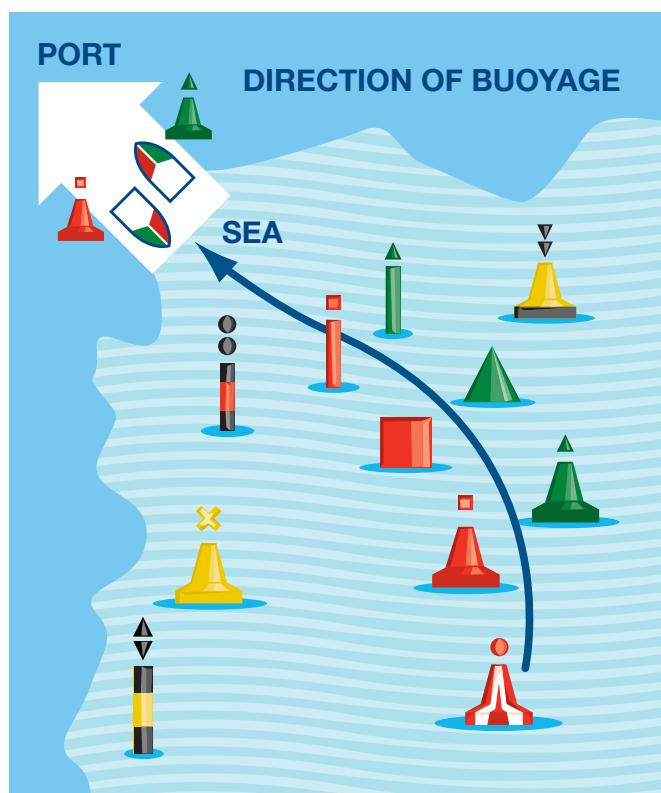
- Keep as far to the right-hand side as is safe and practicable
- A vessel of less than 20 metres in length or a sailing vessel shall not impede the passage of a vessel which can safely navigate only within a narrow channel or fairway
- When engaged in fishing you must not impede the passage of any other vessel navigating within a narrow channel or fairway
- Take extra care when approaching the bend of a narrow channel, always keep to a safe speed and maintain a proper lookout
- Do not anchor in a narrow channel.

# Navigation Markers

A system of buoys, poles and lights is used to assist safe navigation.

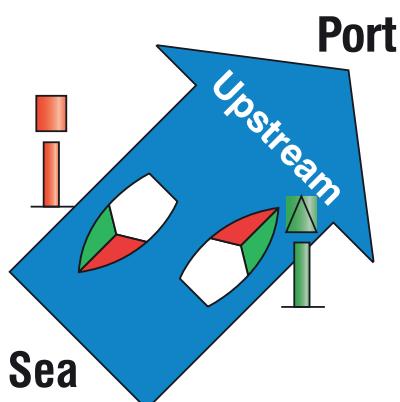
Each type of mark has a unique combination of colour, shape, top mark and light.

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



## Direction of Travel

When leaving port the port hand mark (red) should be passed on the vessel's starboard (right) side. When entering port the port hand mark (red) should be on the port (left) side.



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



This system is in place in most marine areas in the world, but some other parts of the world track reverse this system so that the buoy with a red specialise right side of a buoy and green specialise left side.

In the United Arab Emirates and the Arab Gulf, they are using the normal rules in force in most regions of the world's navy.

## Individual Side Markers

The side markers are mostly used separately and not in pairs, so choose the safe side to travel. The safe side is determined according to the direction of travel as follows:



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



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



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

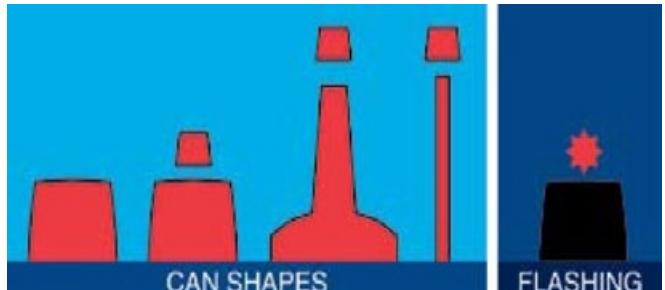


Keep green (starboard hand marks) on your left hand side (to port) when going downstream

## Lateral Marks

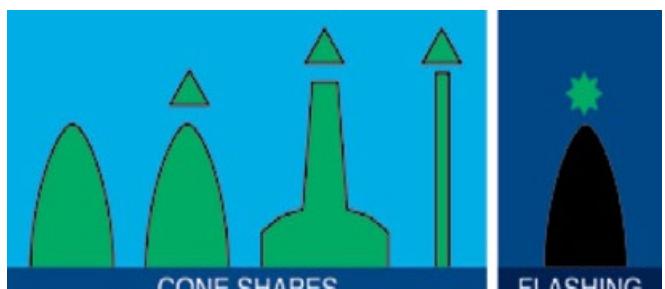
Port and starboard marks are referred to as lateral marks.

### Port Hand Markers



These are red and have a can shaped top mark or buoy. If lit, a port hand mark shows a flashing red light.

### Starboard Hand Markers



Are green and have a cone shaped buoy or top mark. If lit, a starboard hand mark shows a flashing green light.

## Other Buoys

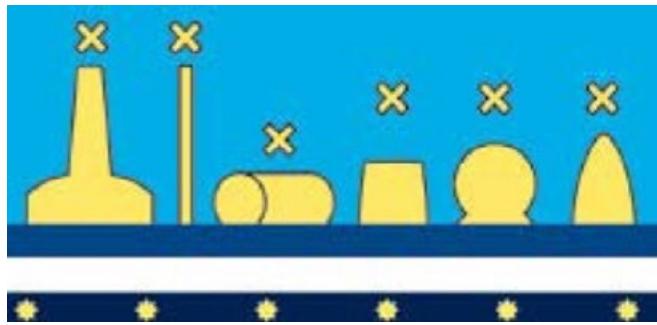
### Isolated Danger

It indicates specific dangers with generally safe waters all around (e.g. 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

These are used to indicate a special area or feature, the nature of which may be found by consulting a chart or sailing directions.

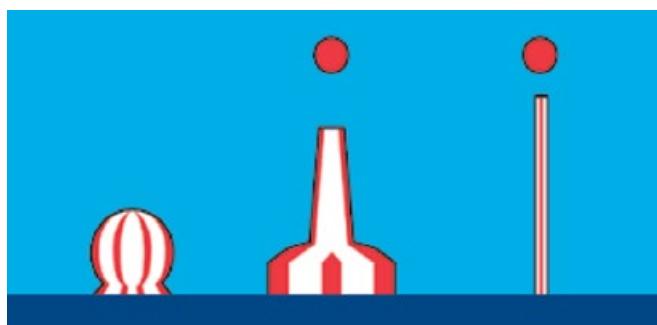


They Indicate special features or areas such as:

- Fish farms
- Military exercises
- Spoil grounds or
- Underwater pipes

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

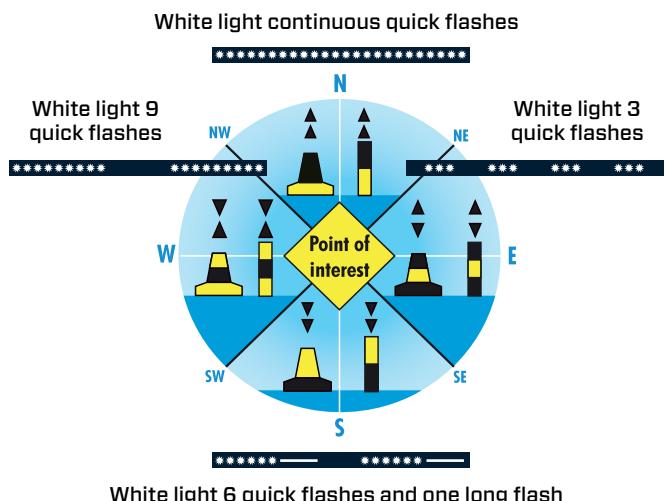
## Safe Water Marks



These are used to indicate that there is navigable water all around the mark. These marks can be used as a centre line, mid-channel or landfall buoy. The beginning of deep water channel coming into Abu Dhabi is a good example

## 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.



### 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.

### 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 flashes followed by a long flash.

### 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.

### 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.

# Emergency Situations

Most serious emergencies occur unexpectedly and very quickly. Being prepared may save your life.

## Capsize

A capsizement is a common boating accident that results in many fatalities. Almost always, a capsizement is totally unexpected and happens in a few seconds. There is no possibility of grabbing anything other than what is immediately to hand. Countless persons have died within the few hours following a capsizement before help reached them. Men on a fishing trip are the most likely casualty.

### Being prepared means:

- Realizing that a capsizement can happen to anyone, no matter how experienced they are, or how safe their boat is.
- Having lifejackets accessible means within reach, not put away in the cabin or under the seats. Better still, wear them.
- Knowing whether your boat will sink? Will float with just the bow above water? Or will float level? Almost certainly.
- Equipment such as flares or a locator beacon will be able to be retrieved from a boat that is floating level, even if it is upside down. Many accidents have shown that equipment cannot be retrieved if the boat floats bow up, even for experienced swimmers or divers.
- Understanding that hypothermia can set in very quickly resulting in rapid loss of strength.
- Ensuring you have the means to tell someone you are in trouble once you are swimming



beside a capsized boat. Unless sealed in a plastic bag, a VHF Radio will not work after immersion, although some handheld VHF radios are waterproof. Cell phones may provide the communication needed to save lives but only if sealed in a plastic bag. They should be kept in a person's pocket and there is no loss of signal strength if cell phones or VHF radios are used while still in the bag.

- Knowing that red hand flares are the best visual distress signal and can be used by day or night. They work well in spite of immersion. Orange smoke is a daytime signal. Every boat should carry a powerful waterproof torch.
- Having equipment that is not able to be retrieved or will not work is pointless. If your boat floats bow up, or sinks.
- Ensuring safety equipment will be available will almost certainly turn a capsizement from a fatal accident to an inconvenience.

## Sinking

If your boat starts taking in water, the first thing to do is ensure everyone on board is wearing his or her lifejacket.

Try to locate the cause of the leak and reduce the flow of water by pushing something into the hole. Make a distress call and head towards shallower water.

Bail the water out as best you can. Should the boat submerge or turn over, **stay with the boat**; you have a much greater chance of being found.

## Person Overboard

The four basic things to remember when a person goes overboard are:

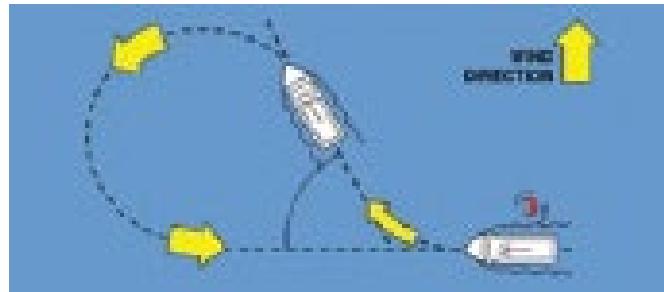
- **SHOUT** very clearly **MAN OVERBOARD** so that everyone on board is aware of the emergency.
- **THROW** a life buoy, throwing line, cushion or anything else to hand which will help the person in the water to float, and mark the position.
- **WATCH** the person in the water carefully, have someone on the boat point continuously at the person. Record the position on GPS if you have one.
- **STOP** immediately to keep the distance between the person in the water and the boat to a minimum. Remember that when you turn, the stern (back) of the boat swings and therefore the propeller swings when you alter course. To avoid serious injury, turn the **stern** (back) of the boat away from the person in the water.



Agree on, and practice, your people overboard drill with all those on your boat, so that everyone is aware of what to do in an emergency situation. Person overboard is in a distress situation. Do not hesitate to call **mayday** on your VHF radio if you are unable to rescue the person in the water immediately.

## Recovery of Person Overboard

Ensuring you are clear of the person in the water, approach the person from downwind (into the wind).



Stop the engine when you are near the person, so you can throw a line or they can swim to you.

In small open boats and those with a low freeboard, boarding should be over the boat's bow (front) or stern (back).

If your boat doesn't have a boarding ladder, use a rope to make a loop over the side for the person in the water to put their foot in to.

## Exposure to the sun

Ultraviolet radiation is strongest between 11 am and 3 pm Daylight Saving Time and is present all year.

The boater is particularly susceptible, as reflected radiation from The water gives an additional radiation effect.

Preventative measures are important and clothing provides the best Protection. Cover exposed areas with a hat that covers the face, ears and neck and wear a long-sleeved shirt. Apply a sunscreen to exposed areas with a maximum sun protector factor - SPF 30+ or above - water-resistant, broad spectrum sunscreen and a solar lip screen. Apply the sunscreen 20 minutes before going out and reapply every two (2) hours.

## Hypothermia

When in the water hypothermia leads to unconsciousness and will cause a victim to submerge and drown.

Wearing a life jacket will prevent submersion, and in some cases provide protection against hypothermia.

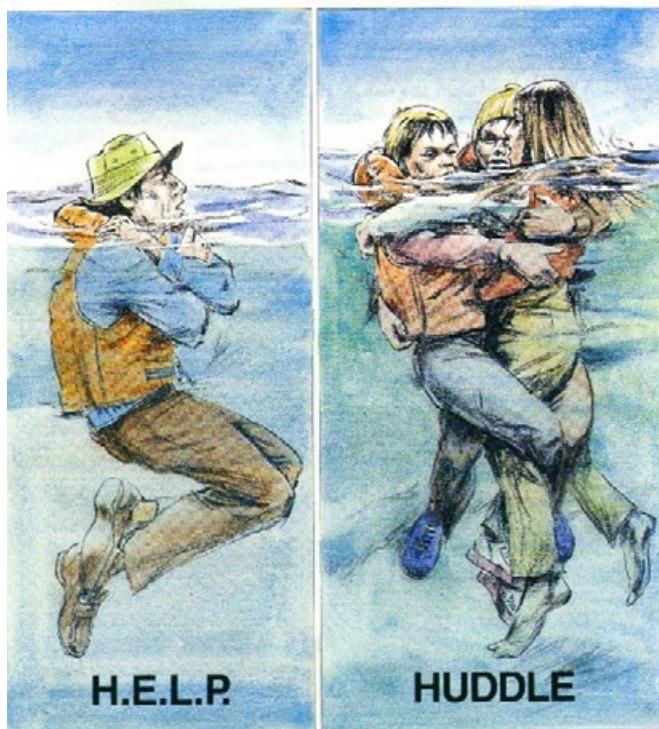
Wearing a life jacket allows a person to conserve energy.

Although treading water or swimming will make you feel warmer, it is a false sensation. Energy spent on moving rather than maintaining warmth will cool the body's core.

Air is warmer than water. Heat loss is greater in water than in air of the same temperature.

If you are in the water with floating objects e.g. upturned boat, then raise as much of your torso out of the water as possible.

Get in to a 'huddle' position with all those from the boat to conserve body heat and for support.



## Running Aground

A vessel is grounded (runs aground) when it gets stuck on the bottom. Never assume that water is deep enough just because you are away from the shore. Also, don't presume that all shallow hazards will be marked by a danger buoy.

If you run aground while travelling at a high speed, the impact not only can cause damage to your boat but also can cause injury to you and your passengers.

**Knowing your environment is the best way to prevent running aground.**

- Become familiar with the locations of shallow water and submerged objects before you go out. Be aware that the location of shallow hazards will change as the water level rises and falls.
- Learn to read a chart to determine your position and the water depth.
- If you run aground, make sure no one is injured and then check for leaks.

**If the impact did not cause a leak, follow these steps to try to get loose.**

- Don't put the boat in reverse. Instead, stop the engine and lift the out drive.
- Shift the weight to the area farthest away from the point of impact.
- Try to shove off from the rock, bottom, or reef with a paddle or boathook.
- If you run aground and you are unable to float the boat again, wait for high tide that will help the boat to float.
- Check to make sure your boat is not taking on water.

If you can't get loose, summon help using your visual distress signals. Call for assistance using your VHF marine radio.

# Fire Prevention

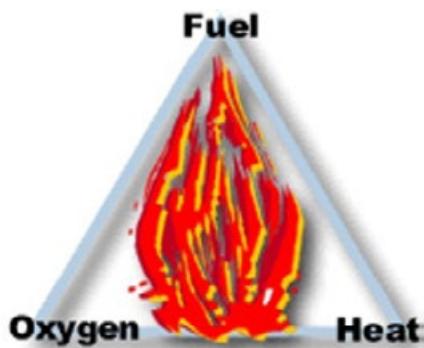
## Fire Fighting

### Remove one of the following:

**Fuel:** Turn off the gas or petrol supply, or remove combustible material.

**Heat:** By applying cold water.

**Oxygen:** Smother the fire with CO<sub>2</sub>, dry powder, or foam or cover with a fire blanket. When using an extinguisher, aim at the base of the fire while keeping low.



To prevent a fire emergency, don't mix the three ingredients that cause a fire to erupt: fuel, oxygen, and heat.

### How to properly use a fire extinguisher (Remember P.A.S.S.)

**P:** Pull pin.

**A:** Aim at base of fire.

**S:** Squeeze handle.

**S:** Sweep side to side.



## Prevention of Fires

**NEVER** smoke while refuelling!

- Ventilate the boat thoroughly after refuelling. Petrol and LPG vapours are heavier than air and will accumulate in the lowest areas where they may be ignited by a spark.
- Remove all rags and materials which have inflammable products on them, such as oily or turps-soaked rags.
- Maintain the electrical systems on your boat to prevent shortcuts and sparks.

## Fire Extinguishers

There are different types of fire extinguisher, each suited to a particular type of fire. A dry powder extinguisher is a good general purpose type which will work well on most fires. It needs to be shaken occasionally to prevent the powder compacting.

Fire extinguishers should be kept outside the engine space in places where they can be reached from the open deck or cockpit.

Ensure all on board know where the extinguishers are stowed and how to use them.

It is important to protect fire extinguishers from salt spray and the elements. Have them serviced regularly.

Under no circumstances should water be used on fuel or electric fires.

## Fire Extinguisher Chart

Extinguisher		Type of Fire				
Colour	Type	Solids (Wood, paper, cloth etc.)	Flammable Liquids	Flammable Gases	Electrical Equipment	Cooking Oils & Fats
	Water	✓ Yes	✗ No	✗ No	✗ No	✗ No
	Foam	✓ Yes	✓ Yes	✗ No	✗ No	✓ Yes
	Dry Powder	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✗ No
	Carbon Dioxide (CO <sub>2</sub> )	✗ No	✓ Yes	✗ No	✓ Yes	✓ Yes

# Protect the Environment

## Did You Know?

The Arabian Gulf is an environmentally sensitive area. It is important to protect it. In August 2008 the Gulf became a Special Sea Area under an international convention. The convention prohibits oil or garbage being dumped or thrown into the Gulf.

It's up to all of us to protect and keep the Gulf clean. It is simple to do. Do not throw rubbish of any kind into the waters of the Gulf. Do not discharge any oil or oily water from your boat into the sea.

## Environment Pollutants

If you simply toss your trash into the water, it will be around for years. For example:

- Paper takes 2-4 weeks to decompose. Wax-coated paper, such as a fast food wrapper or cup, takes much longer.
- Tin cans take 100 years to break down.
- Aluminium cans take 200-500 years.
- Plastic six-pack rings or other plastic takes 450 years.
- Glass bottles take more than 500 years.

Small amounts of petroleum products spilled in the water can have a large impact.

- One gallon of petrol can contaminate 750 gallons of drinking water.
- One single quart of oil when spilled can create an oil slick as large as three football fields.



## Simple Tips

- Never dump plastic bags or any other plastic materials into the sea... it is illegal.
- During the trip, keep all your waste like empty bottles and plastic bags in one place and dump them after arrival to the marina.
- Reduce the remaining food as much as possible. You can dump it in the sea if they amount is small depending on distance to the beach.

**SO DON'T THROW IT, STOW IT AND PUT IT IN THE BIN WHEN YOU GET TO SHORE.**

### STOW IT, DON'T THROW IT

These wastes negatively affect the recreational boats, fishing and other marine crafts as ropes and plastic items blocks the bilge system in the boat.

Therefore, it is very important to stow the wastes in the dedicated place onboard. Do not throw cigarettes, fishing lines or other wastes in water. Put them in the waste containers located in the marina/port.

It is strictly prohibited to dump waste in the Gulf water not to affect its special and unique feature

### Recycle:

- Recycle items like metal, glass and plastic cans, newspapers, oils and lead batteries to protect the environment.
- Bring the worn fishing lines to the marina or the recycle workshop.

## Beach Facilities

- As per the international law, reception facilities should be established in ports for wastes from vessels. It should be adequate for the size and type of ships.
- In case of insufficient coastal reception facilities, inform the port authority to take the necessary action.

**Anyone can contribute to environment protection by notifying the concerned manager or the Department of any marine pollution incident.**

## Maintain the bilge system

### How to keep our water clean

You can contribute to preventing oil spill and irresponsible discharges in many ways:

- Never discharge oily bilge in the sea
- Pump the oily bilge near the port berth, in the waste reception facilities or use specialised company to dump it.
- Keep the engine intact to avoid oil or fuel spill to the bilge.
- Remove any leaked fuel surfacing the bilge using absorbing cloth before discharging it.
- Use specialised bilge cleaners made of Atrium as it is less harming to the environment.
- Fix oil filter in the ship to separate the oil from the bilge.
- If you have a cabin in the bottom of the ship, the bilge system should be fixed in it.
- Use fuel absorbing cloth under the engine.

- Replace the fuel absorbing cloth at least once a year or whenever necessary.
- Check fuel pipes to ensure they are intact and replace them with anti-alcohol pipes.
- Ensure that there is no leakage in all the fuel pipes.
- Keep the bilge system clean and dry as much as possible.
- Fix a water pump for the bilge.

It is prohibited to discharge any waste or fuel in the gulf area.

### **Bilge discharge**

- Use fuel absorbing cloth under the engine
- Fix a water pump for the bilge

### **Sewage**

It is prohibited to discharge any sewage in Abu Dhabi waterways.

Treated sewage is the sewage wastes which have been treated using a treatment system onboard the ship. Sewage treatment systems onboard includes:

- Chemical sewage treatment system
- Biological sewage treatment system

Discharging treated sewage within 3 nautical miles from the shore is safer when the ship is operated at 4 knots.

Discharging sewage properly keeps our water clean and healthy. To achieve this, follow the below advice:

- Install a tank or portable toilet onboard the ship
- Install sewage treatment system

Keep the sewage wastes onboard the ship and dump them in the waste reception facilities upon arrival to the port/marina

### **Marinas**

All marine facilities are equipped with waste reception facilities for ship wastes. Operators and owners should be aware that it is prohibited to dump sewage waste in the marine environment, water or other. Discharge it as per the applicable standards and rules in the marine facilities.

# Glossary of Boating Terms

<b>IALA</b>	The International Association of Lighthouse Authorities (IALA for short) is a non-profit organisation founded in 1957 to collect and provide nautical expertise and advice.	<b>Leeward</b>	Downwind side of your vessel.
<b>Inboard</b>	More toward the centre of a vessel.	<b>Leeway</b>	The sideways movement of the boat caused by wind.
<b>Isobar</b>	Line on a weather map joining places of equal air pressure.	<b>Longitude</b>	The distance in degrees east or west of the meridian at Greenwich, England.
<b>Keel</b>	The bottom of a boat's centreline.	<b>Making way</b>	Vessel underway and moving through the water.
<b>King wave</b>	Unusually large wave made when a sea wave and swell peak at the same place.	<b>Midships</b>	Approximately in the location equally distant from the bow and stern.
<b>Knots (speed)</b>	A speed of one nautical mile per hour (about 1.8 kilometres per hour).	<b>Mooring</b>	An arrangement for securing a boat to a mooring buoy or a pier.
<b>Latitude</b>	The distance north or south of the equator measured and expressed in degrees.	<b>Nautical mile</b>	One nautical mile is equal to 1.151 statute mile or 1.852 kilometres.
<b>Leads</b>	Pairs of marks which, when lined up, indicate the centre of a channel.	<b>Neap tides</b>	Tides half way between full and new moons when there is the smallest rise and fall of tide.
<b>Lee</b>	The side sheltered from the wind.	<b>Port side</b>	The left hand side of a boat looking forwards.
<b>Lee shore</b>	The shore onto which the wind blows.	<b>Protected waters</b>	The waters contained in any lake, river or estuary, or by any breakwater, but does not include the waters of Cambridge Gulf or Lake Argyle.

<b>PWC</b>	Personal watercraft (jet ski).	<b>Sea state</b>	The combination of wind, waves and swell.
<b>Quarter</b>	The sides of a boat aft of amidships.	<b>Secure</b>	To make fast, to tie up.
<b>Rudder</b>	The underwater vertical plate that steers sailing craft and shaft driven power boats.	<b>Set</b>	Direction toward which the current is flowing.
<b>Rules of the road</b>	The international collision avoidance rules.	<b>Sidelight</b>	Lights to be shown at night when underway, showing an unbroken light over an arc of 112.5 degrees from right ahead to 22.5 degrees abaft the beam.
<b>Running lights</b>	Lights required to be shown on boats under way between sunset and sunrise.	<b>Sounding</b>	A measurement of the depth of water.
<b>Sailing vessel</b>	A sailing vessel is only classified as a sailing vessel when propelled by sails only. A vessel under sails but propelled by engines is classed as a power-driven vessel.	<b>Spring tides</b>	Tides at new and full moons with the largest rise and fall of tide.
<b>Scope</b>	The ratio of length of anchor cable in use to the vertical distance from the bow to the bottom of the water.	<b>Squall</b>	A sudden, violent wind often accompanied by rain.
<b>Screw</b>	A boat's propeller.	<b>Stand on</b>	To continue on the same course and speed.
<b>Scuppers</b>	Drain holes in the sides above the deck.	<b>Stand-on vessel</b>	The boat that has right-of-way when meeting another boat.
<b>Sea room</b>	A safe distance from the shore or other hazards.	<b>Starboard side</b>	The right side of a boat looking forwards.
		<b>Stem</b>	Where the sides of a boat meet at the bow.

## Glossary of Boating Terms

<b>Stem the tide</b>	Go forward against the current.	<b>Underway</b>	Not at anchor or made fast to the shore or ground; if you are drifting you are underway.
<b>Stern</b>	The back of a boat.	<b>Wake</b>	Trail of water disturbance left by a moving vessel.
<b>Swell waves</b>	The regular longer period waves that are generated by the winds of distant weather systems.	<b>Wash</b>	The water disturbance which causes damage, injury or annoyance to others and which is created as a boat moves through the water.
<b>Telltale</b>	The stream of water from an outboard motor indicating that cooling water is circulating.	<b>Wave height</b>	The vertical distance between the top of the crest and bottom of trough.
<b>Tidal range</b>	The difference in height of water between high and low tides.	<b>Way</b>	Movement of a ship through the water such as headway, sternway or leeway.
<b>Tide</b>	Rise and fall of the sea caused by the gravitational pull of the sun and moon.	<b>Windward</b>	Toward the direction from which the wind is coming.
<b>Tiller</b>	A bar or handle for turning a boat's rudder or an outboard motor.	<b>Yaw</b>	To deviate temporarily off course, as when running with a quartering sea.
<b>Transom</b>	The stern of a square-sterned boat.		
<b>Transit</b>	A transit occurs when a navigator observes two fixed reference points that are in line with the navigator. This creates a position line.		
<b>Trim</b>	Fore and aft balance of a boat.		

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