

CHAPTER 12 EMERGENCY PROCEDURES

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EMERGENCY PROCEDURES

COPING WITH EMERGENCIES

Most emergencies afloat can be avoided by good seamanship. However, they can happen on even the best maintained vessels so you need to be equipped to handle them. Not only do you need to carry safety equipment on board, you must know how to use it.

Reviewing and practising emergency procedures should be part of your boating habits.

ALL OCCUPANTS TO PUT ON LIFEJACKETS



RAISE THE ALARM



- **MARINE RADIO**
27MHz – Ch 88
VHF – Ch 16



- **PHONE**
Call 000



- **FLARES**
Activate when you see a potential rescuer or when you believe it will be seen



- **EPIRB**
Activate your distress beacon

STAY WITH YOUR BOAT



- A vessel is a lot easier to spot than a person
- Anchor your vessel to maintain position if safe to do so

RAISING THE ALARM

If you or your vessel are in danger it is important to raise the alarm. The way you do it is dependent on the emergency, but the call should be made as soon as the nature of the emergency is known.

RADIO

Distress/urgency procedure

- A distress signal is used only where there is grave and imminent danger to a vessel or person.
- An urgency message is used when help may be needed, but the danger is not grave and imminent.
- A safety signal is used when a station wants to pass important information concerning safety such as navigational or weather warnings.

Distress and urgency communications can be made on the following channels:

DISTRESS CHANNELS/FREQUENCIES	
Radio type	Channel/frequencies
VHF	16 (67 alternative)
27MHz	88 (86 alternative)
HF (frequency)	4125, 6215 and 8291kHz

Alarm signal

An alarm signal is used to attract the attention of operators to the incoming message.

It produces a two-toned warbling sound which can be easily distinguished, even in poor reception conditions.

Distress messages prefixed "MAYDAY" repeated three times are to be used only in grave and imminent danger.

Urgency messages prefixed "PAN PAN" repeated three times are to be used when you or your vessel are not in grave and imminent danger.



Distress call format

A distress message has absolute priority over all other transmissions and may only be transmitted on the authority of the master or the person responsible for the safety of your vessel.

Distress call

Distress signal (x3)	MAYDAY, MAYDAY, MAYDAY
Words "this is"	THIS IS
Station calling (x3)	MAPLE MS742, MAPLE MS742, MAPLE MS742

Distress message

Distress signal	MAYDAY
Name/call sign	MAPLE MS742
Position	5 NAUTICAL MILES SOUTH OF FAWKNER BEACON
Nature of distress	SWAMPED AND SINKING. ESTIMATE FURTHER 10 MINUTES AFLOAT
Other information	SEVEN METRE HALF CAB WHITE HULL WITH BLUE AWNING
(If time permits)	THREE PERSONS ON BOARD EPIRB ACTIVATED OVER

If no answer is received, repeat the distress call and message on the other distress frequencies or any other available frequency on which help might be obtained.

Urgency call

When a distress call is not fully justified, the urgency call 'PAN PAN' (spoken three times) should be used to indicate that a very urgent message follows concerning the safety of a vessel or person. The call details should be the same format as for a distress message except with the message beginning: 'PAN PAN, PAN PAN, PAN PAN'.

Safety signal

Safety signals are used when a station wants to pass important information concerning safety such as navigational warnings or weather warnings and are identified by the word: SECURITE (spoken three times as SAY-CURE-E-TAY).

TELEPHONE

Call 000 or Water Police on 1800 135 729.

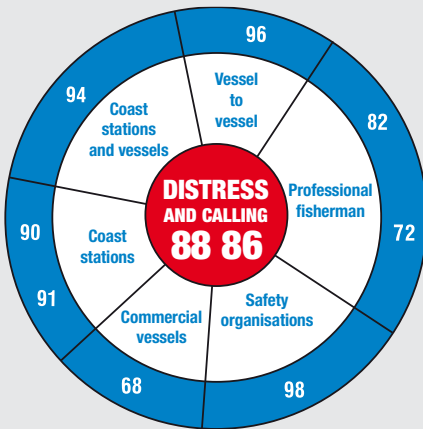
EPIRB (EMERGENCY POSITION INDICATING RADIO BEACON)

Once an EPIRB has been activated, leave it on until instructed by rescue authorities to switch it off. Your EPIRB is the best reference point for rescuers whose aircraft, vessels and vehicles may not be able to remain in the same location as you throughout the emergency.

If you must abandon your vessel, attach the EPIRB to yourself, not the vessel.

While EPIRBs are required by law to be carried when operating more than 2nm from the coast, Transport Safety Victoria recommends operators on other waters also carry EPIRBs.

27MHz marine radio channels



VHF marine radio channels



INTERNATIONALLY RECOGNISED DISTRESS SIGNALS

The following signals are some of those that are internationally recognised and indicate distress and need of assistance. Use of these signals except for the purpose indicated is prohibited.

Description	Signal	Description	Signal
1. Rockets or shells, throwing red stars fired one at a time at short intervals.		7. (a) A rectangle of the internationally accepted colour orange with a black letter V	
2. (a) A signal made by any light or sound signalling method consisting of the group in the morse code – SOS		(b) A rectangle of the internationally accepted colour orange material with a black square and circle.	
(b) A signal sent by radio consisting of the spoken word, "mayday".		8. A dye marker (which releases coloured dye into the water).	
3. A square flag having above or below it a ball or anything resembling a ball.		9. The international code signal of distress indicated by flag symbols NC.	
4. A rocket parachute flare or a hand-held flare showing a red light.		10. EPIRB (emergency position indicating radio beacon).	
5. A smoke signal giving off orange-coloured smoke.		11. Oar with cloth on the end.	
6. Slowly and repeatedly raising and lowering arms outstretched to each side.		12. Continuous sound of fog horn.	

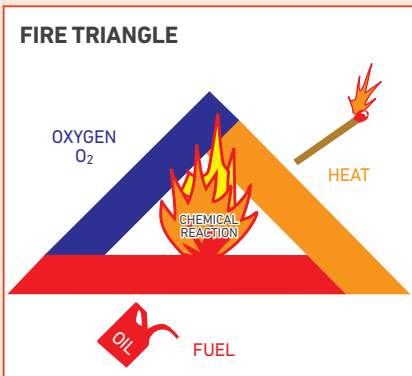
FIRE

THEORY OF FIRE

There are three elements of fire. If these elements are brought together in sufficient quantities then a fire will occur.

The elements are:

- FUEL
- HEAT
- AIR (OXYGEN)



Removal of any of these elements will extinguish fire. The element that is removed depends upon the agent used to extinguish the fire.

- **REMOVAL OF FUEL – STARVING**
- **REMOVAL OF HEAT – COOLING**
- **REMOVAL OF AIR – SMOTHERING**

FIGHTING THE FIRE

- Raise the alarm (to others onboard and to rescue organisations).
- Manoeuvre the vessel to operate with the least wind effect (generally downwind).
- If within an enclosed or confined space, close all the hatches, vents and ports to reduce oxygen.
- If a burning object can be safely moved, get it over the side quickly.
- Shut off fuel lines and gas lines ASAP as flexible fuel lines may collapse and add to the fire.
- Try to extinguish the fire with fire fighting appliances and remember to direct the extinguisher into the heart of the fire not the flames.
- Maintain a watch on the area once the fire has been extinguished and monitor for any re-ignition.
- If you need to abandon the vessel, do not motor alongside another vessel.
- Leave the vessel on the windward side (upwind) to stay clear if the vessel drifts and any fuel spreads in the water.

In an emergency, make sure you are wearing your lifejacket.

HELPING ANOTHER VESSEL ON FIRE

As a master your responsibility lies first with your own vessel and all persons on it. Provide what aid you can reasonably give, according to your knowledge and experience, and your vessel's capabilities.

- Fires on other craft are indicated by large black smoke palls.
- Be extremely cautious as you approach and keep to the windward side of the vessel on fire.
- Remember most fires on small vessels originate from fuel, heating appliances, stoves, leaking gas or cooking fats and oils. Fuel and gas fires spread very quickly. Even a minor spill can create an almost explosive spread of flames.

MAN OVERBOARD

Should anybody fall overboard, do not jump in after them.

If a person falls overboard, initial actions should be:

1. shout “man overboard” to raise the alarm
2. throw a lifebuoy ring, horseshoe or lifejacket to them
3. check your bearings relative to prominent landmarks if available. Mark where the event occurred on a map, GPS or chart plotter. This will assist if a search is required
4. keep them in sight at all times. Ask someone on board to point continuously at the person in the water for the reference of the master and others on board who may be preparing equipment or other head-down activities
5. turn the boat toward the side they fell from (if the person is close to the propeller, put the motor in neutral or switch off the motor to avoid striking them with a turning propeller).

To recover the person overboard position the vessel to bring the person alongside, preferably into wind, then stop engines to avoid striking them with a turning propeller. Help the person into the vessel, preferably over the stern, as a small vessel might capsize or take water if you try taking them in over the side. On yachts with overhanging sterns, they should be pulled in at the lowest point of freeboard. Consider installing a boarding ladder on your vessel.

A person recovered from the water may be hurt, cold or exhausted. If they cannot help themselves, it is difficult to get them back into the vessel. Ropes, a sail or blanket may be passed under them in the water and used to lift and roll them back into the vessel. Keep the victim lying down if at all possible.

Practice your ‘man overboard’ drill often.

ABANDONING VESSEL

If your vessel capsizes and you are unable to right the vessel, abandon the vessel only as a last resort. Stay close to the vessel to improve your chances of being sighted by the rescue vessel. Do not remove your lifejacket, and if you are in the water, stay together in a HUDDLE or HELP position.

Do not try to swim ashore unless it is very close and a suitable landing place exists. Distances can be deceptive. Your vessel is easier to spot in the water than a person alone.

Try to get the EPIRB and distress signals out of the capsized vessel and raise the alarm. Make yourself as visible as you can to both ships and aircraft. Put on more clothes if you are able to. They will help to keep you warm and may delay the onset of hypothermia.

If abandoning your vessel, take the EPIRB and distress signals with you. Switch on the EPIRB and leave it on until emergency services tell you to turn it off.



If you do capsize, stay with your boat until help arrives. Your boat will be more visible than a person in the water.

COLD WATER IMMERSION

COLD SHOCK

Victoria's coastal waters range from about 9.5°C in midwinter to about 22°C in midsummer. Cold shock can kill long before hypothermia. When a person falls into water less than 15°C the first reflex is to gasp and then hyperventilate, during which it is extremely difficult to hold breath. The heartbeat may become very fast and irregular during this time. There is a high danger of drowning if the head is not kept above water. It may take several minutes to regain control of breathing and be able to climb back aboard if this remains possible.

Strength and coordination weaken quickly in cold water, typically in ten to fifteen minutes, so it is important to inflate lifejackets and rafts, and set off EPIRBs quickly for the best chance of survival and rescue. Prepare flares and signals next, so they are easy to access and deploy when help arrives.

Activity such as swimming will increase heat loss. Hypothermia commences when the body core temperature reduces, typically within an hour of immersion.

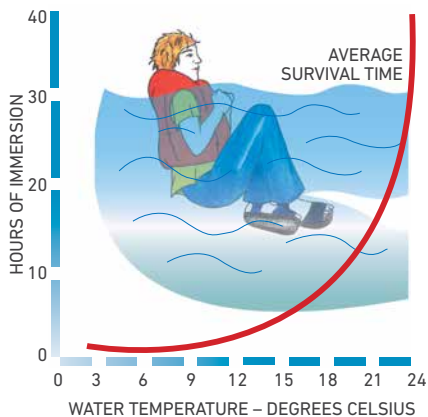
If you fall into cold Victorian waters you will generally have:

- 1 minute to get your breathing under control and keep your head out of the water
- 10-20 minutes of useful movement in which to get out of the water to prepare for rescue
- 1 to 3 hours before you become unconscious due to hypothermia.



HYPOTHERMIA

The term 'hypothermia' means lowering deep-body or core temperature. 'Immersion hypothermia' is an acute type of hypothermia produced when a person is immersed in cold water. The graph shows that an adult of average build could not expect to survive more than three hours of immersion in midwinter.



The time is very short when you consider the time lost before a search and rescue operation is under way.

The heat escape lessening posture (HELP) pictured above, combats hypothermia and can be a lifesaver to people in cold water.

The HUDDLE position can also be used if there is more than one person in the water. To reduce body heat loss, make sure you stay close (huddle together) and remain still.

WARNING: the consumption of alcohol, attempting to swim or movement in the water will cause the body to use up heat rapidly, which will hasten the onset of hypothermia.

When recovering a person from cold water, keep them lying down if at all possible to reduce the load on the heart. Treat the cold person as for hypothermia and watch carefully for breathing difficulties due to intake of water.

Key points for treatment

1. Remove the person from the cold-inducing environment.
2. Protect the person from cold wind.
3. Remove wet clothing if practical.
4. Warm victim with dry blankets, towels or skin-to-skin contact.
5. Warm the area of high heat loss, that is, head and neck, sides of chest, armpits, and groin. Do not warm, rub or massage limbs.
6. Observe the person for deterioration in condition.
7. Manage an unconscious person by placing them in the lateral position, making sure their airway is clear. Continue warming procedures.
8. Do not give the person alcohol.
9. Do not allow the person to walk around.
10. Seek medical assistance.

SEASICKNESS

In many cases, seasickness can be avoided if you sleep aboard the vessel the night before the voyage to let your body get used to the boat's motion. Of course, this may not be possible in small vessels. Otherwise, you can take seasickness tablets as advised by a chemist or a doctor, but be wary as some may make you drowsy.

If you feel seasick, keep busy and stay in the fresh air. Avoid the head down position, as this aggravates illness. Nibble on a dry biscuit, chew barley sugar or dried fruit. Ginger is also considered a good anti-seasickness remedy. Stay out of enclosed areas where fumes from fuel and food odours may temporarily collect.

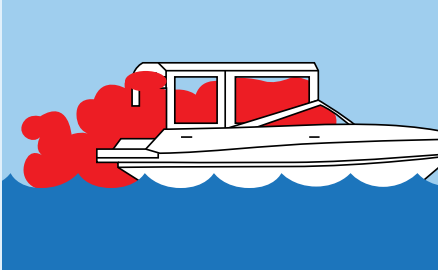
Experienced sailors keep their diet free of rich, fatty foods and alcohol, both before going to sea and while aboard.

CARBON MONOXIDE POISONING

Carbon monoxide is a common part of exhaust gases from engines, generators and stoves using any kind of fuel. It is colourless, odourless and very toxic. It is heavier than air so it accumulates in restricted spaces such as cabins and engine bays, and on low surfaces such as the water beside exhaust ports and under duck boards at the stern of powerboats.

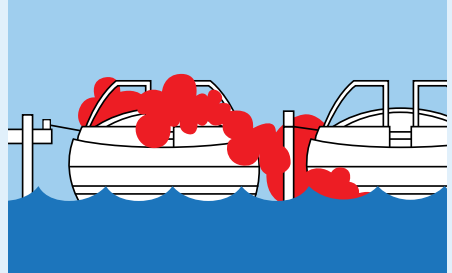
To avoid carbon monoxide poisoning:

- ensure inboard engines exhaust outside the vessel



- make sure canvas enclosures are adequately ventilated
- ensure stoves and fuel heaters are exhausted outside the cabin
- never use a gas range or oven for heating
- keep cabins and engine bays well ventilated
- make sure the engine bay vents are outside the cabin

- be aware of another vessel's exhaust. Carbon monoxide from the boat docked next to you can be just as deadly



- install carbon monoxide alarms in cabins and keep them serviced regularly
- be wary when external exhaust gases are blown by the wind into the cabin or into a sheltered part of the deck for any length of time
- always have your equipment installed and serviced by a competent person

Symptoms

- Dull headache
- Weakness
- Dizziness
- Nausea or vomiting
- Shortness of breath
- Confusion
- Blurred vision
- Loss of consciousness

Carbon monoxide poisoning can be especially dangerous for people who are sleeping or intoxicated.

Treatment

- get the victim into fresh air, being careful not to be exposed yourself
- seek immediate medical attention.

DON'T LET YOUR BOAT GO UP IN SMOKE



BE FIRE SAFE

transportsafety.vic.gov.au/fire-safety

REPORTING INCIDENTS AND ACCIDENTS

Always dial 000 in an emergency. If an incident has occurred but you are not in immediate danger, report it to Victoria Police on 1800 135 729.

Where death, injury or property damage occurs, report the incident details as soon as possible to the police officers present or to the police station nearest to where the accident took place.

Vessel operators involved in an accident must give assistance to other persons

involved, without endangering their own vessel, crew or passengers.

They must give their name, address, identification and registration details to (where applicable) any person injured, his or her representative, to the owner of any property damaged and to the police present at the scene.

Refer to chapter 1 about safety duties for further information about reporting incidents.

Incident reporting forms are available on the Transport Safety Victoria website at **www.transportsafety.vic.gov.au**.



Before you sit your test to get your marine licence, would you like to check your knowledge about the information in this handbook? We have sample test questions available.

Download the questions from the Transport Safety Victoria website **www.transportsafety.vic.gov.au**.

To have a copy mailed to you call **1800 223 022** or email **information@transportsafety.vic.gov.au**.