

Emergency situations

Prepare for emergencies

- Well-prepared boaters seldom have big problems at sea. These are the people who are ready to cope with the unexpected and usually avoid emergencies.
 - Accidents still occur to the most thoughtful of people, and you need to be ready to deal with them.

Assisting others

- It is a legal obligation to offer help if you hear a radio distress call or see distress signals or a burning vessel.
- You are required to keep your radio tuned either to the distress frequency or Sea Rescue's working frequency.
 - This is because you must stay available to assist others.
- The traditions of the sea also say that you should respond to urgency radio calls or to other requests for assistance that fall outside the distress category.
- You are not obliged to offer a tow to other vessels.
 - You can offer to stand by until Sea Rescue turns up.

Sending a distress signal

- Decide as quickly as possible if your emergency needs outside help, then waste no time asking for it.
- The radio is almost always the best means, but a flare or waving arms might be appropriate for a nearby vessel.
- The flashing of a mirror or dedicated heliograph can attract the attention of a vessel or aircraft within visible range.

Distress signals

Radio

- The radio is usually the best means of calling for any kind of help.
- You are able to specify what kind of help and the level of urgency.
- It is also best for signalling distress.
- It has longer range than visual signals.
- Can continue sending as long as there is battery power.
- It lets you state your exact position
- Sea Rescue can also home in on the signal.

Distress signals

EPIRB

- This is the device that will call for help even after a vessel has sunk.
- It can only send a distress message with few other details, but once activated it works with no assistance from you.

Distress signals

Flares

- Red hand-held flares and orange smoke flares are short range – you need to see a potential rescuer before you fire one.
- Parachute rocket flares have a longer range but, ideally, you would use them in conjunction with your radio.
 - Your rescuer might ask you to fire one to give a target to steer towards.

Other distress signals

Other internationally recognised distress signals include:

- A gun or other explosive signal fired at intervals of about a minute;
- Continuous sounding of a fog horn;
- Waving – slowly raising and lowering outstretched arms;
- Smoke and or flames on a vessel;
- A Mayday radio signal;
- The international codes flag N over C;
- A red parachute flare or a red hand-held flare; and
- An orange smoke flare.

Other distress signals

Phone

- A mobile phone is not accepted as a substitute for a radio, but it can be a useful back up.
- If you have to abandon your vessel, leaving the radio behind, you should certainly take your phone with you.

Capsize / sinking

Capsize

- Capsizes have caused more boating deaths than any other type of accident.
- These are among the commonest capsizing factors:
 - gross overloading, or poor distribution of load;
 - broaching when running with a following sea. This is made more likely by the boat not having the bow trimmed up;
 - free surface effect due to water in the boat or shifting load;
 - poor driving technique;
 - caught by breakers on the seaward side of a reef (usually on days of bigger than normal swell); and
 - caught by wind and waves with the occupants on one side pulling pots.

Capsize

Stay with the vessel if possible

- If the boat capsizes, make sure they are all there and make sure they stay with the boat.
 - Most trailable-sized boats have enough flotation to keep afloat if upturned.
- If you can, turn the boat upright and bail it out.
 - If you cannot right the boat and get inside it you should try to get as much of yourselves as possible onto the hull – you will lose less body heat.
- Consider getting the best swimmer to dive and remove lifejackets and safety gear.
 - Keeping the small items in a watertight container will have made this easier.
 - Once you have your safety gear, consider the appropriate means to use to get help.
- Never swim away from a capsized boat.

Sinking

- Most trailer boats have flotation to cope with flooding, and seldom sink.
- Larger boats without flotation usually take some time to sink.
- Having life jackets quickly accessible, safety items and emergency provisions in a watertight drum, and water in a floating container should allow enough time to take these essentials with you.
- Before abandoning the boat, attempt to send a Mayday message.
- Do not remove any clothing – if there is time, it is better to put more on.
- Once in the water activate the EPIRB.
- To keep everybody together, and to conserve body heat, adopt the huddle position.

Grounding

A large, faint watermark logo is centered in the background. It consists of a circular emblem with the words 'SKIPPER'S' at the top and 'TICKET' at the bottom. The slogan 'SAFETY STARTS WITH THE SKIPPER' is written around the perimeter of the circle, with small dots separating the top and bottom phrases.

Grounding

- Grounding is very common, with results ranging from minor scratching to sinking, injuries and environmental damage.
- The speed and type of bottom hit are often all that cause the difference.

Grounding

- If you do run aground, look after your passengers.
 - Coming to a sudden stop can cause injuries.
 - You may need to call for medical assistance.
- Assess the damage.
 - Is the boat leaking?
 - If you are outboard or stern drive powered, raise the leg and check for propeller damage.
- If the boat appears serviceable, check for depth around the boat by probing with a boat hook or even getting over the side.
- Pushing off may be the best option for getting the boat clear, although you may need to wait for the tide to rise.
- If the boat is unseaworthy or hard aground call for assistance.

Prevention

- This is a thoroughly preventable type of emergency.
- Knowing where you should be and where you actually are, and keeping a good lookout are the keys.
- Plan your trips using a chart, and take the chart along. Ensure you will have enough water depth throughout.
- Make sure you can identify all the navigation marks, and bear in mind that not all of them have lights at night.
- Whenever in doubt about your position or the identity of a navigation aid, slow down.

Breakdowns

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Breakdowns

- Well-maintained motors are unlikely to break down, and most breakdowns consist of the motor refusing to start rather than simply stopping.

Breakdowns

Outboard not starting

- Not everything in this list applies to every outboard motor, but it is the basis of a simple troubleshooting routine.
 - Does tank have fuel? Is air vent clear?
 - Is fuel line un-kinked and connected?
 - Is the fuel bulb hard? If not, squeeze continually.
 - Does choke close fully?
 - Check the carburettor air intake.
 - Is the motor cranking fast enough? Check battery connections.
 - Wait five minutes and try again.
 - Battery flat? Start with rope around flywheel.
 - Broken starter cord? Start with rope around flywheel.
 - Change spark plugs.
 - Change fuses.
 - Ensure kill switch is attached.

Breakdowns

- If you are unable to restart the motor, you should, if possible, anchor to hold your position.
- Unless your boat is drifting into danger or has other problems, breakdown is not a reason for making a Pan Pan or Mayday call.
- You should call Sea Rescue for assistance.



Fire

Fire

- Fire prevention is preferable to fire fighting.
- Fires involving LP gas are invariably catastrophic, and petrol fires usually so – essentially, they are explosions rather than fires.
- Besides these, boats are prone to the same types and causes of fires as you get ashore.

Causes of fire

Some causes of fires

- overheated oil on galley stove;
 - overloaded or incorrectly wired electrical system;
 - poor engine room housekeeping – rags in contact with turbocharger or exhaust system;
 - leaking fuel or gas lines; or
 - poor refuelling technique.
- Correct installation, good housekeeping, regular maintenance and good fire prevention technique can prevent most of these.

Engine

- There are boats on the water powered by petrol engines with substandard conversions to marine use.
- They may have inadequate means of preventing stray sparks, have second-rate fuel systems, and be in compartments with poor ventilation.
- When buying a used boat with an inboard or sterndrive motor, have the motor and installation checked by a marine mechanic.
- Fuel vapour is heavier than air, and will not leave a compartment without assistance.
- Consider having power ventilation installed.

ULP

- LPG systems, a prime candidate for fires, must be correctly installed by a qualified person.
- As with petrol, the vapour is heavier than air, so the cylinder must be stowed above deck in a place where vapour spills will run over the side.
- When you have finished cooking with an LPG stove, turn off the gas at the cylinder and let the gas jets keep burning until they go out.
 - Then turn them off.

Placement of Fire Extinguisher

- Locate your extinguishers where they are most accessible – not near the source of a potential fire – and check and maintain them.

Keep engine and bilges clean

- Have the installation and maintenance of all electrical, gas, diesel and petrol equipment carried out by qualified tradesmen.
- Frequently make your own checks for leaks in fuel and gas systems.
- Develop a consistent routine for starting your engine. For inboards and sterndrives this should always include entering the engine room or opening the motor box, checking for leaks and sniffing as low in the bilge as you can reach.
 - The human nose is good at detecting minute concentrations of flammable vapour.

Refuelling

Refuelling is the most likely time for fuel spills.

When refuelling:

- turn off everything that uses electricity, gas or liquid fuel;
- send passengers ashore;
- take portable fuel tanks out of the boat;
- have a fire extinguisher near the refuelling point;
- know how much fuel you need to take and so reduce the chance of overfilling (leave space to allow for expansion of the fuel);
- if your fuel tank is metal, there must be electrical continuity between the mouth of the fuel filler pipe and the tank. The hose nozzle must stay in contact with the filler mouth while the fuel is flowing; and
- check the bilge for spillage and for the smell of fuel. Do not start the engine until all fuel smell has gone.

Fighting a fire

- The most important consideration is human life, the boat is secondary.
 - Raise the alarm and make a head count.
 - Get someone to make a Pan Pan radio call.
 - Get someone to take charge of the safety gear and move the passengers as far as possible from the fire.
 - If the fire is within an enclosed space, close all openings to reduce air supply to the fire.
 - Close off fuel lines and gas lines.
 - Try to put out the fire with extinguishers, fire blanket, water buckets or whatever is appropriate. The best way to deal with burning items may be simply to throw them over the side.
- When the fire is apparently out, still keep an eye on it and on adjoining spaces; fires can restart.
 - Chemical extinguishers do not cool fires – consider using water to cool after the flames are extinguished.



First aid

First aid training

- Knives, fishing gear, venomous sea life, galleys and engine spaces – as well as a range of potential accidents – provide endless opportunities for injury on board.
- It makes a lot of sense to take a first aid course with experts such as St John Ambulance or Red Cross.
- Of course, back up the training by carrying a suitable first aid kit.

Seasickness

Preventive measures

- Check whether your passengers are prone to seasickness.
- If they usually take medication for it, make sure they take it at the recommended time.
- For those prone to seasickness consider the following:
 - Non-medication remedies work for many people. Eating ginger or wearing an acupuncture band are popular.
 - Avoid greasy food and alcohol before and during the trip.
 - Sit in the lowest motion part of the boat, usually near the stern.
 - Stay in the open air.

Seasickness

If seasickness strikes

- Often, people are only prone to seasickness in a stationary boat.
- If a bad bout comes on, try getting under way again.
- Bad seasickness can dehydrate people quickly.
- Encourage a seasick person to continually sip water.

Hypothermia

Hypothermia

- This is the result of major heat loss from the body, causing a lowering of the body's core temperature.
- Immersion in cold water multiplies the rate of heat loss by many times, and being in wet clothes in cold wind can, over time, also cause hypothermia.
- Hypothermia is a life threatening condition, most common in survivors of boat capsizes or sinkings, and it is made worse by physical exertion like swimming or treading water.
- Greatest heat loss is from the head, the armpits and from the crotch.

Hypothermia

Huddle/HELP position – lessening the effect

- If at all possible get out of the water, or at least get out as much of yourself as you can by climbing onto a capsized hull.
- If in the water, wearing a life jacket allows you to protect the heat loss areas.
- The Heat Escape Lessening Position (HELP) puts your legs together and drawn up, your upper arms tight by the sides of your chest, and your head back.
- The Huddle position is adopted by a group of people.
- Clustering close together in a circle, ribs touching, arms around each other, greatly reduces heat loss.

Hypothermia

Treating hypothermia

- Usually the circumstances will suggest the possibility of hypothermia if the victim seems drowsy and is cold to the touch.
- Other signs include:
 - faint, slow pulse;
 - shallow breathing;
 - confusion, with slurred speech; and
 - dilated pupils.

Hypothermia

Treating hypothermia

- Your aim should be to prevent further heat loss, and gradually warm the victim.
 - Move the victim to a sheltered part of the boat.
 - Remove wet clothing and wrap in whatever clothing, blankets etc are available.
 - Dry the hair and put a beanie or similar on the head.
 - Probably the best way to gently warm the victim is to share a sleeping bag and use your body's own heat.
 - Do not rub or massage.
 - Do not give alcohol.
 - Make a radio call to Sea Rescue and ask for further advice while heading for shore at your best speed.