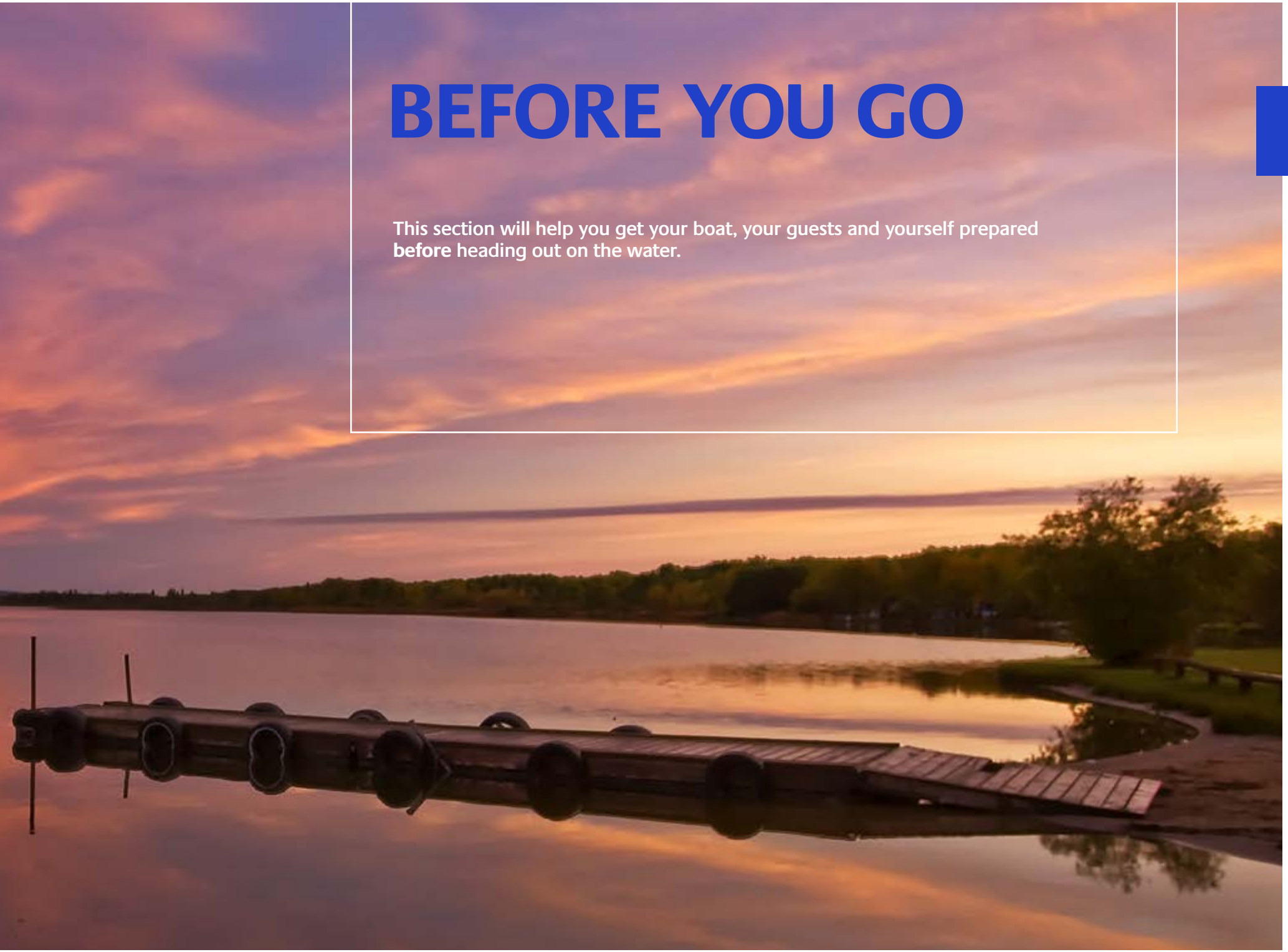
BEFORE YOU GO

This section will help you get your boat, your guests and yourself prepared **before** heading out on the water.



INSPECT YOUR BOAT

Take a few minutes to make sure you are ready to boat safely before you leave. This will reduce risk when you are out on the water. More than half of all calls for help are from boaters in trouble because of motor problems, including running out of fuel!

Operating a boat that you know is not seaworthy is against the law. You must keep your boat, its engine and all equipment in good working order. Whether you own, rent or borrow a boat, use the Pre-Departure Checklist (see REFERENCE CARDS section of this guide) to make sure you are ready before leaving.

Explain safe boating rules to everyone on board before heading out. Tell your guests where you keep the safety equipment and how to use it. Make sure that at least one other person on board knows how to operate the boat in case something happens to you.

MONITOR THE WEATHER

Weather and water conditions play a big role in your safety on the water. Before heading out, make sure you get the latest forecast for your area and that you understand what it means. You should also be aware of local factors (like topography) that may cause weather conditions to differ from the forecast. The best source for this information is people who know the area well.

Summer thunderstorms can strike quickly and without warning, so keep your eye on the sky when you are out on the water. If it starts to look dark and cloudy, and conditions are changing quickly, head for shore. Remember to check your up-to-date nautical charts in advance so that you will know where to find shelter.

Environment Canada issues marine forecasts several times a day in many ways. If you have a marine radio, you can get weather updates while you are on the water. These forecasts provide information on wind speed and direction, weather, visibility and freezing spray (if applicable). Some forecasts discuss current conditions while others discuss the conditions you can expect over several days. Marine forecasts are also available online.

When it expects high wind speeds, Environment Canada will issue a wind warning in the marine forecast:

- **Strong Wind Warning** (20 – 33 knots) (37 – 61 km/h)
- **Gale Warning** (34 – 47 knots) (62 – 87 km/h)
- **Storm Warning** (48 – 63 knots) (88 – 117 km/h)
- **Hurricane Force Wind Warning** (64 knots or more) (118 km/h or more)v Marine weather forecasts are available 24 hours a day in some areas through Environment Canada's Weatheradio service on the VHF-FM radio band. To get these forecasts, you need a Weatheradio receiver or a VHF marine radio. You can also get continuous forecasts from the Canadian Coast Guard on marine VHF weather channels.

Get a complete list of Environment Canada weather services across Canada online.

MAKE AND FILE A SAIL PLAN

A sail plan (also known as a trip or float plan) includes the route you plan to travel and describes your boat. No matter what you call them, you should file one before heading out — even if it is just for an hour or two (see REFERENCE CARDS section of this guide).

File your sail plan with someone you trust and tell them to contact a Rescue Coordination Centre if you are late. You will find their telephone numbers in the CONTACT INFORMATION AND REFERENCES section of this guide.

If you are taking a long trip, you should file a daily position report (especially if you change your planned route). Be sure to let people know when you return or safely arrive at your next stop. If you do not, people may worry and launch a search, which can waste Search and Rescue resources.

CARRY AND USE OFFICIAL NAUTICAL CHARTS AND PUBLICATIONS

An open body of water may seem inviting, but remember that there are no clearly marked traffic lanes on the water, which can make navigation difficult.

To help make navigation safer, the law requires you to carry the following for each area you plan to boat in:

- the latest edition of the largest scale chart (when available); and
- the latest edition of related documents and publications, including *Notices to Mariners*, *Sailing Directions*, tide and current tables, and the *List of Lights, Buoys and Fog Signals*.

The documents, charts and publications may not be necessary* if your boat is less than 100 tons and that you have sufficient knowledge of the waterways including:

- shipping routes;
- lights, buoys and marks;
- boating hazards; and
- boating conditions, such as tides, currents, ice and weather patterns.

*Safe and efficient navigation must not be compromised. (return ↑)

The Canadian Hydrographic Service (CHS) is the official source for navigational charts and publications in Canada's waters. Under the Charts and Nautical Publications Regulations made pursuant to the Canada Shipping Act, 2001, boaters must use charts issued officially or on the authority of the CHS. You can buy official paper and digital charts from authorized chart dealers. For more information or to find the nearest authorized chart dealer, visit www.charts.gc.ca.

Before heading out, you should know how to:

- plot a course;
- determine your position; and
- use:
  - a compass along with nautical charts;
  - electronic navigation equipment; and
  - references such as tide tables, Canada's buoyage system, navigation lights and signals, *Notices to Mariners* and *Sailing Directions*.

Avoid danger by steering clear of rapids and currents, and be sure not to obstruct commercial navigation in commercial shipping channels.

REMEMBER: Even though you use charts, keep proper watch at all times.

PLAN TO AVOID LOCAL HAZARDS

Being prepared means more than having your boat and equipment in good working order. You should also:

- Check nautical charts for overhead obstacles, bridges and underwater cables in your boating area.
- Read nautical charts with publications like *Sailing Directions*. Looking at tide tables and current atlases will also help you learn about water levels, times of low, slack and high tides, and the direction of water flow.
- Stay away from swimming areas – even canoes and kayaks can injure swimmers.
- Avoid boating too close to shore.
- Talk to local residents who know the waters if you are in an area that is not covered by marine charts. They may be able to point out low-head dams, rapids and white water, as well as describe local wind conditions, currents and areas of rapid high-wave build-up.

FUEL SAFELY

Leaking or spilled fuel not only harms the marine environment but presents a fire hazard. Follow these steps when fuelling — it is the safe thing to do and it is the law.

- Moor your boat securely to prevent spills.
- Shut off all engines.
- Send guests ashore.
- Put out all open flames.
- Do not smoke.
- Turn off electrical switches and power supplies.
- Do not use electrical devices such as portable radios.
- Close all windows, portholes, hatches and cabin doors.
- Remove portable tanks from the vessel before refuelling.
- Ground the nozzle against the filler pipe.
- Know how much fuel your tank can hold and do not overfill it — you have a duty to prevent fuel leaks and spills into your boat's hull and the water.
- Wipe up spills and dispose of the used cloth or towel in an approved container.
- Run the engine compartment blower for at least four minutes immediately before starting the gasoline engine.
- Check for vapours from the engine compartment before you start up the engine.

New environmental laws affecting diesel fuel mean frequent changes to the type of diesel available at the pump. Follow the safety instructions provided by fuel suppliers, as well as your boat's engine and system user manuals.

BE AWARE OF CARBON MONOXIDE DANGERS

Carbon monoxide (CO) is a **deadly gas** you cannot see, smell or taste. CO comes in through your lungs and cuts off the oxygen supply to your body, causing death in minutes. Be alert! Symptoms include headaches, nausea and fatigue – but you might think you are just seasick or have the flu.

CO can come from anything that burns a carbon-based fuel (gasoline, propane, charcoal, oil, etc.) such as engines, gas generators, cooking ranges, heaters, etc. CO acts a lot like air. It does not rise or fall, but spreads evenly throughout an enclosed space.

Here are some tips to help protect yourself and others from CO poisoning:

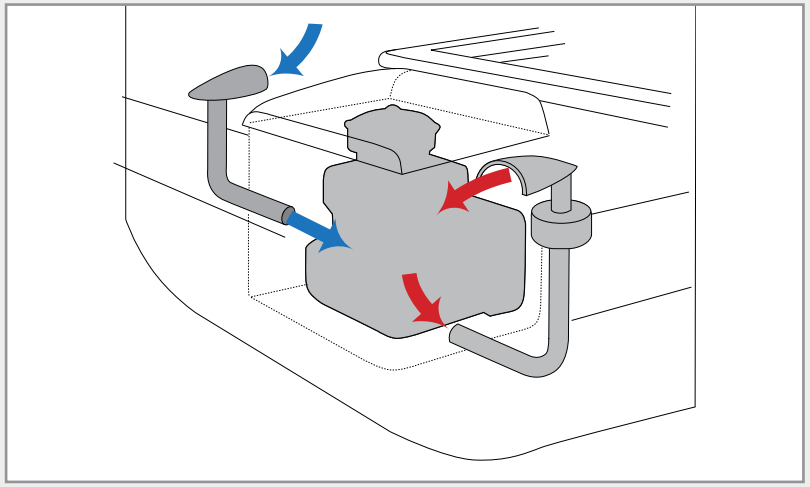
- Idle your engine only in well-ventilated areas. A tail wind can easily carry CO back on board.
- Heat the cabin in a well-ventilated area.
- Cook in a well-ventilated area.
- Make sure that cabin extensions and areas fitted with canvas tops are well ventilated.
- Use only fuel-burning engines or appliances that are certified or designed for marine use and make sure to use them in well-ventilated areas only.
- Use a marine-grade CO detector and check its batteries before every trip.
- Be aware that CO can build up when:
  - two vessels are tied to each other;
  - you are docked alongside a seawall;
  - exhaust gases enter the space between pontoons;
  - your load causes the bow to ride high; or
  - a fuel-burning appliance or engine is running while your vessel is not moving.

REMEMBER: Carbon monoxide (CO) is not just a risk to boaters. Swimmers too can be overcome by breathing CO and drown in just minutes! Areas of high risk are under swim platforms and between the pontoons of houseboats.

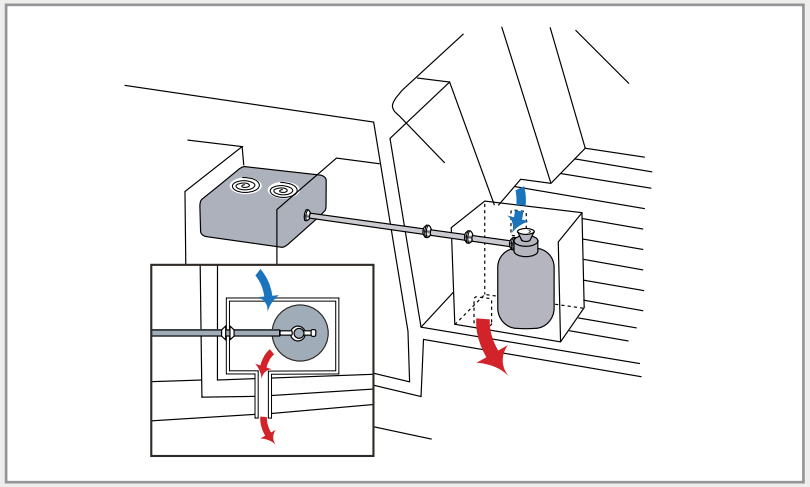
REDUCE THE RISKS OF EXPLOSION

Fuel-Burning Appliances

Typical ventilation system



Typical propane installation with ventilation



Gas vapours and leaking propane and butane are heavier than air and will quickly flow into the lower parts of your boat. They are very hard to remove and are **highly explosive**. On board appliances that run on propane or butane may present more risk than gasoline.

Here are some tips for using propane and butane safely:

- Use appliances and systems designed for marine use.
- Ask a qualified technician to install, maintain or repair your appliance/system according to the manufacturer's instructions and the marine standards.
- Use a fuel-burning appliance only in well-ventilated areas.
- Secure portable appliances and heaters so that unexpected movement does not cause a leak.
- Secure gas cylinders and tanks in an area with good ventilation.
- Always have someone paying attention to an open-flame heating, cooking or refrigeration system.

Ignition Protection

Every boat that has a gasoline engine or uses propane devices must have ignition-protected electrical devices. These parts are designed and made so that, under normal conditions, they will not ignite gasoline or propane fumes or vapour. This protection prevents sparks from escaping during use. Only use electrical components that are clearly labeled as ignition protected.

Many older boats, and even some new ones, have been fitted with converted car or truck engines. If you are not sure that your engine has ignition-protected parts in it, have a certified marine technician look at it and tell you if a replacement part (or related work done to the engine) has put the engine's ignition protection, and you, at risk.

LOAD YOUR BOAT PROPERLY

Overloading your boat with people, equipment or both is dangerous. Your boat's safety on the water depends on how much you put on the boat and where you put it. Too much weight will make your boat unstable and allow small waves to come on board. It will also reduce the amount your boat can roll before its sides dip under water. The greater the weight you carry on board, the more your boat is likely to roll, making it harder for it to return to normal.

As the boat operator, follow the recommended maximum safe limits on the Transport Canada compliance notice.

REMEMBER: These limits apply only in good weather and they assume that the weight is evenly distributed on board – so use your best judgment when conditions are less than perfect.

While the compliance notice of a boat over 6 m (19'8") will not have any recommended limits, the boat **can** become unstable, if you overload it. Refer to your boat's manufacturer for guidance and use good judgment when loading and operating your boat.

Other tips include:

- Evenly distribute the weight of occupants and equipment.
- Properly secure equipment to avoid shifting.
- Keep the load as low as possible.
- Be familiar with your craft's limitations and handling.
- Keep your centre of gravity as low as possible if you must move around.

HAVE A PLEASURE CRAFT COURTESY CHECK

Transport Canada works with boating safety organizations like the Canadian Power & Sail Squadrons (CPS) to offer free courtesy checks for pleasure craft. Check the CPS website to learn about the Recreational Vessel Courtesy Check Program.

If you request a check, a trained boating safety volunteer will board your boat, while alongside a dock or at a boat ramp, to:

- check out the safety equipment and other requirements;
- identify any problems; and
- discuss general boating safety issues.

Education and prevention are the keys to this program. Since program volunteers never issue any penalties, it is a great opportunity to learn more about boating safety and make sure that you are ready to head out on the water. The knowledge you gain from a courtesy check will help you to stay safe on the water year after year.

Note that the courtesy check is not a formal assessment of the condition of the vessel or any of the equipment. It is **your** responsibility to make sure that your vessel and related equipment meet all regulations that apply to your boat.