MODULE 2

ACTS AND REGULATIONS AFFECTING PLEASURE CRAFT OPERATORS IN CANADA

The major acts, regulations, and codes affecting pleasure craft operators in Canada are:

- Canada Shipping Act, 2001
- Small Vessel Regulations
- Collision Regulations
- Vessel Operation Restriction Regulations
- Charts and Nautical Publications Regulations
- Competency of Operators of Pleasure Craft Regulations
- Criminal Code of Canada

The six modules of this course contain the information that you must know to pass a Transport Canada operator competency test and obtain your PCOC (Pleasure Craft Operator Card).

This module contains the following sections

2.1 Small Vessel Regulations
2.2 Collision Regulations
2.3 Vessel Operation Restriction Regulations
2.4 Charts and Nautical Publications Regulations
2.5 Criminal Code of Canada
2.6 Enforcement
Module 2 Review Quiz
2.1 SMALL VESSEL REGULATIONS

The Small Vessel Regulations apply to all boaters operating on any Canadian waters. These regulations:

- Outline loading limits, power limits, and licensing and registration requirements for recreational vessels;
- Specify the mandatory safety equipment required onboard; and
- Describe safety precautions to be taken while operating your pleasure craft.

Compliance Notice

In Canada, any pleasure craft that is propelled (or designed to be propelled) by a motor is required by Transport Canada to carry a label, tag, or plate called a “Compliance Notice”. The compliance notice must be permanently affixed to the hull of the vessel, usually at the back of the vessel, in a location where it can be read from inside the vessel.

As depicted in the image at left above, for pleasure craft less than 6 m (20 ft) in length, a Compliance Notice must be affixed displaying the vessel’s Recommended Gross Load Capacity, which includes:

- The maximum load that the vessel can carry;
- The maximum number of adult-sized people that the vessel can carry; and
- (If the vessel is designed to be fitted with an outboard motor): The recommended safe limit of engine power recommended for the hull.

The operator of a pleasure craft cannot exceed any limit indicated on the Compliance Notice. The maximum load indicated on the Compliance Notice (also referred to as the “recommended gross load capacity”) includes the weight of all passengers, the motor, fuel, and all cargo on board.

A Note about Compliance Notices

The load and power limits indicated on a Compliance Notice assume that:

- The vessel will be operated in fair weather; and
- The weight of equipment and people carried in the vessel is evenly distributed to balance the hull.
Remember, in high winds and large waves, the load and power limits indicated on your vessel’s Compliance Notice no longer apply; the vessel can only accommodate a smaller load. Thus, any trip that you plan to take with your pleasure craft should be planned with the craft’s capabilities in mind. **Operators should take into account weather and water conditions when planning a trip and adjust loads for weather conditions according to the capacity of their vessel.**

Samples of acceptable Compliance Notices are provided below:

![Compliance Notice Examples](image-url)

For more information on Compliance Notices, please go to Transport Canada’s web site:

- [Compliance Notices - FAQ](website-url)
TYPES OF SAFETY EQUIPMENT

The minimum amount and type of safety equipment required onboard is based on your vessel’s type and length (i.e. bigger boats are required to have more and better equipment).

All required safety equipment must be carried onboard, be in good working order, be readily accessible and available for immediate use, and be maintained regularly and replaced according to manufacturer instructions and recommendations so that it will function correctly when needed.

The Vessel Operation Restriction Regulations (VORRs) require four types of safety equipment to be carried onboard your vessel:

1. Personal protection equipment;
2. Boat safety equipment;
3. Distress equipment; and

2.1.1 PERSONAL PROTECTION EQUIPMENT

Personal protection equipment (PPE) includes:

A. Approved personal flotation devices and lifejackets;
B. Buoyant heaving lines;
C. Life buoys; and
D. Re-boarding equipment.

A. Approved Flotation Devices

An approved PFD or lifejacket is one that bears a label, stamp, or tag indicating that it has been approved. To comply with the standards, you must ensure that the label on your flotation device indicates that it has been approved by one of the following agencies:

- Transport Canada; or
- Fisheries and Oceans Canada; or the
- Canadian Coast Guard.

Visitors to Canada may use flotation devices that conform to the laws of their home country.

When purchasing a flotation device, choose one that is appropriate for your size, weight, and activities in which you are engaged.
If you employ a flotation device that is too small, it will not support your weight in the water.

Ensure that the style you choose fits you comfortably. Keep in mind that the most highly visible colours in the water are red, orange, and yellow. Wearing these colours increases your chances of being located during a search and rescue operation. At the beginning of each season, check the condition of your flotation device by trying it out in the water to ensure that it functions correctly.

The Vessel Operation Restriction Regulations require that each craft (regardless of the type of craft) have on board a Canadian-approved personal flotation device or lifejacket of the appropriate size for each individual on board [except for infants less than 9 kg (20 lbs) in weight or a person with a chest size of 140 cm (55 in) or larger]. Note: There are no approved lifejackets or PFDs for infants that are less than 9 Kg (20 lb.) in weight.

![Image of people in lifejackets]

Note: Approved personal flotation gear does not include products such as buoyant seat cushions or water-skiing belts.

Lifejackets - Lifejackets are defined as flotation devices that are designed specifically to keep an unconscious person face-up in the water. This is important when a person is immersed in cold water since hypothermia can eventually cause a person to lose consciousness. Lifejackets are more bulky and less comfortable than PFDs. There are three main types of Lifejackets:

1. SOLAS (safety of life at sea) lifejackets;
2. Standard lifejackets; and
3. Small vessel life jackets
SOLAS lifejackets – SOLAS lifejackets meet very high performance standards and are approved for all vessels. This type of lifejacket will turn over an unconscious person in seconds to keep one’s face out of the water. It is designed to work even when the wearer is unconscious.

Standard life jackets – Standard lifejackets are approved for all vessels except those required to carry SOLAS lifejackets. A standard type lifejacket will turn a person over to be face up in the water but not as quickly as a SOLAS device. Standard type lifejackets are available in two sizes: greater than 40 kg (88 lb) and less than 40 kg.

Small Vessel Lifejackets – Small vessel lifejackets are approved only for small vessels (vessels under 6m in length). This type of lifejacket can turn a person over to be face up in the water but slowly. They are available in keyhole and vest styles in three sizes: greater than 41 kg (90 lb), 18 kg (40 lbs.) to 41 kg (90 lbs.), and less than 18 kg (40 lbs.).
Life jackets are bulkier and less comfortable than PFDs and, as a result, are rarely worn.

There are lifejackets available that are inflatable (they inflate automatically in water, or they can be triggered to inflate, or they can be inflated manually by blowing into a tube). Note: children under 16 years of age must not wear inflatable lifejackets.

**Personal Flotation Device** – A personal flotation device (PFD) is defined as a device designed to provide enough buoyancy to keep a conscious person’s chin out of the water. Specialised PFDs are available for sports such as water skiing and kayaking. PFDs do not have a lot of buoyancy, making them unsuitable for rough water. PFDs are not designed to keep an unconscious person face-up in the water.

A PFD or lifejacket should fit snugly (not tightly) and allow freedom of movement of arms and legs. **PFDs or lifejackets should be worn at all times while on board any pleasure craft.**

The approved status of a PFD or lifejacket lapses if the flotation device has been **damaged, altered, or repaired**. Note: Repairing a PFD or lifejacket does not restore it to its approved status.

Use only a mild soapy solution (hand soap or dish soap) when cleaning a PFD or lifejacket; **dry-cleaning fluids, strong detergents, gasoline, or solvents should never be used to remove a stain from a PFD or lifejacket as they will damage the foam flotation material inside a PFD or lifejacket (i.e.: a PFD or lifejacket that smells of petroleum products is not approved since it is damaged (has been exposed to a solvent).**

When wet, PFDs and lifejackets should be dried in open air but not in prolonged exposure to sunlight and not close to a direct heat source (such as in a clothes dryer or next to an electric baseboard heater). When not in use, dried PFDs and lifejackets should be stored in a dry, well-ventilated, easily accessible place on board the pleasure craft.
It is highly recommended that you test the buoyancy of your PFD or lifejacket at the beginning of every boating season. To do so, use the following technique:

1. Put on the PFD or lifejacket;
2. Wade into chest-deep water;
3. Bend at the knees to lower yourself further into the water;
4. Float on your back; and
5. Verify that the device keeps your chin above water.

Keeping Children Afloat

A PFD or a lifejacket is no substitute for adult supervision. Children should be within arm’s reach and wearing an approved flotation device at all times that they are on or near water (including when on a dock). Children should also be taught how to put on a flotation device in the water.

Flotation devices are available that are designed specifically for children. Before buying a flotation device for your child, check labelling to make sure that the device is Canadian-approved. Select one that best suits your child’s size and weight and have your child try it on. It should fit snugly, not ride up above the chin or ears.

Here is a quick test to verify the fit of your child’s flotation device: While your child is wearing the device, check the space between the top of your child’s shoulder and the device’s armhole. If the space is more than the three fingers wide, then the device is too big and could do more harm than good.

Look for these safety features:

- A large collar for head support
- Waist or elastic gathers in front and back.
- A safety strap that goes between the legs to prevent the device from slipping up and over your child’s head.
- Buckles on the safety straps
- Reflective tape

It is also recommended that you use a string or lanyard to attach a non-metallic, pea-less whistle.

Parents who want their children to wear a flotation device should set a good example by doing so themselves.
Inflatable PFDs

There are PFDs available that are inflatable. **Inflatable PFDs are not approved for any person who is less than 16 years of age or who weighs less than 36.3 kg (80 lbs).** Inflatable PFDs are not approved for use on PWCs or for use in any white water activity such as kayaking or rafting. In addition, inflatable PFDs are not suitable for weak swimmers.

**You must be wearing an inflatable PFD for it to be approved on any open boat.** If the boat is not open (i.e.: it has a cabin), then you only need to wear it when you are not in the cabin (i.e.: you must wear it when on deck or in the cockpit).

Inflatable PFDs are significantly different from traditional foam-filled PFDs and are gaining popularity because when folded, and not inflated, the PFD is light, compact, comfortable, non-restrictive, and either inflates automatically when immersed in water, or is inflated by the wearer (usually in less than 5 seconds) by pulling a tab or toggle when buoyancy is needed.

**Be aware that inflatable PFDs require regular maintenance since they contain a carbon dioxide (CO₂) cartridge that inflates the PFD.** The inflatable PFD should be checked before each use to ensure that the CO₂ cartridge is properly installed and ready for use. The CO₂ cartridge must be replaced after every use; thus, it is recommended that you have a complete rearming kit onboard for each inflatable PFD.

As mentioned above, inflatable PFDs are not recommended for weak swimmers. The inflation time for these devices, although relatively short, may not be appropriate for persons that are not confident in the water and if the automatic or manual inflation system malfunctions, a weak swimmer may have difficulty successfully inflating the device using the back-up oral inflation tube. If you are struggling to stay afloat, blowing into this inflation tube could be a challenge.

All Canadian-approved inflatable PFDs come with manufacturer instructions. Make sure that you read the manufacturer instructions and become familiar with the operation and maintenance requirements for your inflatable PFD. Also, be sure to try out your PFD in a supervised, safe environment before your first boating excursion to make sure that you are familiar with and comfortable with how it operates.
Inflatable PFDs are generally available in two styles:

1. Vest style
2. Pouch style

**Vest style** – A vest style PFD can be designed to be inflated orally (by blowing into a tube), manually (by pulling a tab or toggle to activate CO₂ inflation), or automatically (when a CO₂ trigger mechanism is immersed in water). For PFDs that inflate automatically, users should be aware that exposing the PFD to extreme humidity or to water splashing over the craft may cause premature automatic inflation.

**Pouch style** – A pouch style PFD can be inflated manually (by pulling a toggle to activate CO₂ inflation) or inflated orally (by blowing into a tube). The pouch style PFD is considered a 2-stage PFD donning device because once the inflation mechanism is triggered, the inflated chamber comes out of the pouch and then the wearer must pull the inflated chamber over his or her head to correctly wear the inflated PFD.
B. Buoyant Heaving Lines

Buoyant Heaving Lines – Buoyant heaving lines are composed of a floating line (such as nylon rope) with a float attached at one end. The line is designed to float so as to reduce the risk of the line tangling in a vessel’s propeller and to make it easier for a person in the water to find and grab onto the line.

All vessels up to 24 m (79 ft) in length are required to have a buoyant heaving line of at least 15 metres (49 ft - 3 in) in length with a float attached at one end. Vessels that are greater than 24 metres in length are required to carry a buoyant heaving line of at least 30 metres (98 ft - 6 in) in length. It is highly recommended that your line have attached to it an object made of a soft material such as foam rubber to assist in throwing accuracy. It is also recommended to practice throwing your heaving line to develop accuracy in the event of an emergency.

C. Life Buoys

Life Buoys – Operators of vessels that are 9 m (29.5 ft) in length or longer must carry life buoys that are attached to buoyant lines 15 m (49 ft) in length. The body of the lifebuoy must be in good condition (no tears, perforations, or rot) and the grab lines attached along the sides of the lifebuoy must be in good condition. There are two types of acceptable lifebuoys:

- **Small Vessel Lifebuoy** – Circular in shape with an outside diameter of 610 mm (2 ft). These devices are approved by Transport Canada.
- **SOLAS Lifebuoy** – Circular in shape with an outside diameter of 762 mm (2.5 ft).

**Note:** The 508 mm diameter lifebuoys and horseshoes do not meet the requirement for having a lifebuoy.
D. Re-boarding Equipment

**Lifting harness** – A lifting harness is required on all pleasure craft that are 24 m (78.7 ft) in length or longer.

**Re-boarding Device** – A re-boarding device allows a person to get themselves back on board a boat from the water. A re-boarding device is required if the vertical height that must be climbed to re-board the pleasure craft from the water (freeboard) is greater than 0.5 m (1.6 ft). Pleasure craft equipped with transom ladders or swim platforms already meet this requirement. The re-boarding device cannot be part of the vessel’s propulsion unit. Further, the device qualifies under the regulations only if it is appropriate to the craft on which it is being used; i.e.: it must readily assist someone to gain access to the pleasure craft from the water.

When using a re-boarding device to get someone back on board, manoeuvre the craft to the downwind side of the person in the water and then use the re-boarding device to recover the person over the windward side.

The re-boarding device should be checked seasonally to ensure that it is undamaged and functions correctly. It should be stowed in a location that is out of the way but readily accessible in the event of an emergency.
2.1.2 NAVIGATION EQUIPMENT

Navigation equipment is composed of devices that are designed to help you to be seen and heard by other vessel operators. There are four main types of navigation equipment:

1. Sound signalling devices
2. Sound signalling appliances
3. Navigation Lights
4. Passive radar reflectors

Sound signalling devices and sound signalling appliances are used to communicate your manoeuvring intentions, to alert others of your presence in restricted visibility, and to draw attention in emergencies. A sound signalling device is portable and can be carried on or about a vessel, whereas a sound signalling appliance is more substantial and is installed permanently on a vessel.

Sound Signalling Devices – All vessels under 12 m (39.4 ft) in length and not equipped with a sound signalling appliance must carry some type of sound signalling device (such as a peapess whistle or a compressed gas horn).

According to the Collision Regulations, a vessel of 12 metres or more in length shall be provided with a whistle, a vessel of 20 m (65.6 ft) or more in length shall be provided with a bell in addition to a whistle, and a vessel of 100 m (328 ft) or more in length shall, in addition, be provided with a gong, the tone and sound of which cannot be confused with that of the bell. The bell or gong or both may be replaced by other equipment having the same respective sound characteristics, provided that manual sounding of the prescribed signals shall always be possible.

A vessel of less than 12 metres in length shall not be obliged to carry the sound signalling appliances prescribed above but, if it does not, then it shall be provided with some other means of making an efficient sound signal.
Sound Signalling Appliances – Vessels that are 12 metres or more in length must carry a sound signalling appliance (such as a bell and whistle). Vessels that are 20 (65.6 ft) metres or more in length must be equipped with two sound signalling devices (one of which must be a bell). Sound signalling devices must meet technical criteria for frequency and audible range as described in the Collision Regulations.

Navigation Lights – Navigation lights (also called running lights) are required to be displayed under the Collision Regulations if a vessel is operated after sunset and before sunrise or in periods of reduced visibility (such as in fog, mist, or rain). Navigation lights help vessels that are converging on crossing courses to determine who has the right of way.

Passive Radar Reflectors – A passive radar reflector (example pictured at left) is designed to make a vessel more "visible" to radar. Vessels less than 20 m (65.6 ft) in length or constructed primarily of non-metallic materials can be difficult to see on radar and must, therefore, be equipped with a passive radar reflector mounted above the superstructure, not less than 4 m (13.1 ft) above the water. The reflector must be able to maintain its performance under the range of foreseeable environmental conditions.

The radar reflector requirement does not apply if your vessel operates only in limited traffic, in daylight, and favourable environmental conditions.

Your vessel is not required to carry a passive radar reflector if compliance is impractical because of the small size of the vessel or if it only operates where other vessels do not use radar.
2.1.3 DISTRESS EQUIPMENT

There are two basic types of distress equipment:

- Watertight flashlights
- Pyrotechnic distress signals (flares)

**Watertight Flashlight** – Almost all vessels are required to have at least one working, watertight flashlight on board. This is especially true for small boats not equipped with navigation lights. For non-powered vessels, as well as sailboats that are less than 7m (23 ft) in length, a watertight flashlight qualifies as navigation lights.

A flashlight can be used to signal your presence to other vessels. Use the light by shining it toward approaching vessels. If your vessel is sail-powered, then use the flashlight to light up the sail. It can also be used to send an SOS distress signal. Check the flashlight weekly to ensure that the batteries are good. Keep fresh batteries in a dry place on the boat. Almost every pleasure craft requires a watertight flashlight or flares. In the event of an electrical failure, a watertight flashlight may be your only means of signalling your presence to other vessels.

**Pyrotechnic Distress Signals** – Pyrotechnic distress signals (flares) should be treated like they are explosives (they are). Pyrotechnic distress signals or flares are not required to be carried on board a pleasure craft that is operating in a river, canal, or lake in which it can at no time be more than one (1) nautical mile from shore, or the vessel has no sleeping arrangements and is engaged in an official competition or in final preparation for an official competition.

The number and types of flares required are based on a boat’s length (see Table 2-1) and area of operation. Visual signals (flares or watertight flashlights) are not required on board a pleasure craft that is 1) not more than 6 m (19.7 ft) in length and 2) not fitted with a motor. Otherwise the following requirements apply:

- If a powered pleasure craft is not more the 6 metres in length, a watertight flashlight OR three pyrotechnic distress signals other than smoke signals is required.
- If a powered pleasure craft is 6 - 9 m (19.7 - 29.5 ft) in length, then a watertight flashlight AND six pyrotechnic distress signals other than smoke signals are required.
- If a powered pleasure craft is more than 9 metres in length, then a watertight flashlight AND twelve pyrotechnic distress signals (not more than six of which are smoke signals) are required.
When buying flares, ensure they have been approved by Transport Canada. **Approved pyrotechnic devices are valid for only 4 years from their date of manufacture (date of manufacture is stamped on each flare). This is the most common feature of all distress flares.**

Consult your local law enforcement agency, the Canadian Coast Guard, Transport Canada, or a local fire department for advice on disposing of out-of-date flares. In many municipalities, flare can be disposed of on special days when toxic wastes are picked up with recycling; always clearly label the bag or containing the flares as “explosives”.

**Read the manufacturer’s instructions before using a flare.** Each type of flare has specific characteristics and uses. There are four main types of flares:

1. Parachute flare
2. Multi-star rockets
3. Hand-held flare
4. Smoke flare

**Parachute Flare** – An aerial flare that, when launched, reaches a height of approximately 300 m and then floats back to earth suspended beneath a parachute

**Multi-Star Rocket** – Two red stars that, when launched, reach a height of 100 m. They burn for 4 to 5 seconds and are visible from the air or from the surface.

**Hand-held Flare** – This is a red-flame torch that can be held in the hand. It has limited visibility and is best suited to helping rescuers pin-point your location during an air search

**Buoyant or Hand-Held Smoke Signal** – A smoke flare that can be held in the hand or left to float on the water
2.1.2 BOAT SAFETY EQUIPMENT

**Manual Propelling Devices** – Include oars (with oarlocks), paddles, or any other apparatus that can be used to propel a boat (including pumping the rudder on small open sailboats). They should be carried on a powerboat in case the engine quits. In the event that a vessel engine fails, oars and paddles should be used to keep the vessel out of danger by propelling it to shore or to water that is shallow enough for the vessel to anchor. Paddles or oars should be stowed on board in a location where they are not in the way yet readily accessible in the event of an emergency.

**Anchor** – An anchor is good to have for when oars or paddles are insufficient to keep a current from carrying your vessel into shallow water or onto rocks. You must carry either manual propelling devices or an anchor on board your boat. Your anchor must be attached to at least 15 metres of chain, cable, or rope.

**Hand Bailers** – Hand bailers must be made of plastic or metal and have a volume of at least 750 ml and an opening that greater than 65 cm$^2$ (10 in$^2$) in area. Use the bailer to scoop water from the boat. Check the bailer seasonally and replace it if it is split or cracked. Stow it in a location that is out of the way yet readily accessible at short notice.
**Manual Water Pumps** – Instead of relying a hand bailer, one may opt to employ a manual pump. A manual pump usually looks like a bicycle tire pump except that it is designed to pump water. If relying on a manual pump instead of a hand bailer, then note that a **primary requirement of a manual water pump is** that the intake of the pump must be able to reach the bilge and the discharge hose must be long enough to discharge water over the side of your boat.

To use a manual water pump to bail water from a boat, pump with the base of the pump (intake) in the bilge and the discharge hose over the side of your boat. The pump should be tested annually and the hose checked for splits and cracks and replaced as needed to ensure that the pump will function when needed. The pump and hose should be stowed in a location that is out of the way but readily accessible in the event of an emergency.

Most pleasure craft are required to have at least one hand bailer or manual pump on board. Some craft are exempt from this rule. For instance, a bailer or manual water pump is not required for multi-hull vessels that have subdivided, multiple-sealed hull construction (common example: pontoon boat), or sailboats fitted with a recess-type cockpit that cannot contain enough water to capsize the boat., or a sit-on-top kayak.

Many pleasure craft are equipped with bilges (spaces where water is collected and then pumped). Some bilges are equipped with electric bilge pumps. **All bilges must be accessible by a manual pump, which is used to pump bilge water over the side.** The manual pump and bilge access should be checked annually.
Fire Extinguisher – Your vessel should be equipped with the number and type of fire extinguishers as indicated in Table 2-1. A class 5BC fire extinguisher is required on any vessel that has an inboard motor, a fixed (built-in) fuel tank, or an appliance (such as a cabin heater or stove) that burns fuel. Any motorized vessel must have on board a type BC fire extinguisher. The size of the type BC extinguisher depends on the length of the vessel (see below). The number of extinguishers to be carried on board depends on the length of the craft and the types of fuel burning appliances on board.

All pleasure craft up to 6 m in length must have at least one 5BC fire extinguisher on board. And all craft greater than 6 m in length and equipped with a motor need at least two fire extinguishers. If a craft is equipped with an inboard motor or a fuel burning appliance, then the following requirements apply:

- Up to 6 m - needs one 5BC if equipped with an inboard motor, a fixed fuel tank or a fuel-burning appliance
- 6 to 9 m - needs one 5 BC if equipped with a motor plus one 5BC if equipped with a fuel-burning appliance
- 9 to 12 m - needs one 10 BC if equipped with a motor plus one 10BC if equipped with a fuel-burning appliance
- 12m and above - needs one 10 BC if equipped with a motor plus one 10BC at each access to a fuel burning appliance, at entrance to any accommodation space and, at entrance to the machinery space.

The letters (A, B, C, or D) on the label of a fire extinguisher identify the types of fire that the device will extinguish:

- A - **Class A** means that the extinguisher is designed to extinguish fires of combustible solid materials (wood, paper, etc.). Thus, a bucket of sand or water qualifies as a Class A fire extinguisher.
- B - **Class B** means that the extinguisher is designed for fires of burning combustible liquids (gas, oil, etc.).
- C - **Class C** means that the extinguisher is designed to extinguish electrical fires.
- D - **Class D** means the extinguisher is for fighting fires of burning metal [when ignited, a typical magnesium-fuelled flare (magnesium is a metal) represents a Class D fire].

The number before the letters on the label of a fire extinguisher rates the extinguisher’s size (a 10BC extinguisher puts out a bigger fire than a 5BC extinguisher). Longer vessels are required to carry bigger fire extinguishers (see Table 2-1).
A marine-grade fire extinguisher is recommended because of its resistance to corrosion. Store the extinguisher close to the driver’s position.

The fire extinguisher that you choose should be certified by an appropriate certifying body [such as Underwriters Laboratories of Canada, Underwriter Laboratories (USA), or the British Board of Trade for Marine Use], or approved by the United States Coast Guard. Always familiarise yourself with your fire extinguisher by reading the manufacturer’s instructions (so that you know how to use it rapidly and effectively in the event of a fire). Maintain and replace fire extinguishers according to manufacturer instructions and ensure that your fire extinguisher is always fully charged.

Although, Transport Canada recommends that a fire extinguisher should be included in the safety equipment on all pleasure craft, it is mandatory that pleasure craft be equipped as described in Table 2-1.

Everyone on board the vessel should know where the fire extinguishers are located and how to use them. Fire extinguishers should always be stored in a convenient and accessible location.

Fire extinguishers should be protected from damage and securely stowed. If stowed in a locker or container, the outside shall be clearly marked with its contents.

Fire extinguishers should be checked regularly to verify that they are fully charged. With chemical-type devices, shake them vigorously in the upside down position once a month to prevent the extinguishing agent from caking on the bottom. Carbon dioxide- (CO₂-) type devices should be recharged if they contain less than 90 percent of their capacity. If you use a Halon 1211 system, have it inspected annually.

Note that both CO₂ and halogens are colourless, odourless gases that displace oxygen. Exercise extreme caution when storing or using them below decks. Even if your pleasure craft has an automatic fire suppression system the Small Vessel Regulations still require you to carry the portable extinguishers specified for your vessel in Table 2-1.
Axes and buckets

Other firefighting equipment required on larger vessels includes axes and buckets. Buckets should be not less than 10-litres in capacity and should be fitted to a lanyard of sufficient length to reach the water from the location in which the bucket is stored.

Vessels that are between 12 m (39 ft) and 24 m (79 ft) in length are required to carry at least one axe and two 10-litre buckets. Vessels greater than 24 m in length must carry at least two axes and four 10-litre buckets. In a fire situation, buckets are used to douse the fire with water. Axes can be used to break up material to help control the fire.

Note: An axe can also be used to cut a tow line in an emergency. If you are towing a vessel that is sinking, it can sink yours as well if it remains attached via a tow line.

Check the condition of axes and buckets annually and keep them in a readily accessible location.

You are in violation of the Small Vessel Regulations if your vessel does not have all required safety equipment on board. A summary of minimum requirements under the regulations (based on vessel length) is provided in Table 2-1.

A Very Important Reminder

As mentioned earlier in this chapter, the safety equipment required on your vessel depends on the type and length of the vessel. Operators should ensure that they consult Table 2-1 while keeping in mind the length and the type of their vessel.

All required equipment carried on board must be in good working order, readily accessible and available for immediate use, and maintained and replaced in accordance with the manufacturer’s instructions or recommendations.
Table 2-1: Summary of Safety Equipment Requirements

<table>
<thead>
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<th>Type of Vessel</th>
<th>Human Powered(^3)</th>
<th>Sail or Powered(^6)</th>
<th>Sail and Powered(^6)</th>
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<td>Vessel length:</td>
<td>&lt; 6 metres(^1)</td>
<td>6 to 9 metres</td>
<td>9 to 12 metres</td>
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**Required Safety Equipment**

<table>
<thead>
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<th>Requirement</th>
<th>Human Powered(^3)</th>
<th>Sail or Powered(^6)</th>
<th>Sail and Powered(^6)</th>
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<tbody>
<tr>
<td>PFD or lifejacket for each occupant</td>
<td>√</td>
<td>√</td>
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<tr>
<td>Buoyant 15m heaving line</td>
<td>√</td>
<td>√</td>
<td>√ or life buoy on 15m line</td>
</tr>
<tr>
<td>Small vessel or SOLAS lifebuoy on 15m line</td>
<td></td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>Re-boarding device if free-board &gt; 0.5 m</td>
<td></td>
<td></td>
<td>√</td>
</tr>
<tr>
<td>Lifting harness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manual propelling device or anchor(s)</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Bailor or manual water pump</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Fire extinguisher(s)(^1)</td>
<td>1 5BC(^2)</td>
<td>1 or 2 5BC(^3)</td>
<td>1 or 2 10BC(^3)</td>
</tr>
<tr>
<td>Axe</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>10-L buckets</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Powered fire pump</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watertight flashlight or flares</td>
<td>Flashlight or 6 flares if craft over 6m in length</td>
<td>Flashlight or 3 flares other than smoke signal(^1)</td>
<td>Flashlight +6 flares other than smoke signal</td>
</tr>
<tr>
<td>Sound signalling device/appliance</td>
<td>Any type</td>
<td>Any type</td>
<td>Any type</td>
</tr>
</tbody>
</table>
## Type of Vessel

<table>
<thead>
<tr>
<th>Vessel length:</th>
<th>Human Powered&lt;sup&gt;6&lt;/sup&gt;</th>
<th>Sail or Powered&lt;sup&gt;6&lt;/sup&gt;</th>
<th>Sail and Powered&lt;sup&gt;6&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 6 metres&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Or a flashlight</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>6 to 9 metres</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 to 12 metres</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 to 24 metres</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>&gt; 24 metres</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Pleasure craft that are less than 6 m in length do not need to carry fire extinguishers or visual signals (flares, etc.) if they are not equipped with a motor.

2. Pleasure craft must carry at least one 5BC (or larger) fire extinguisher if the craft is equipped with an inboard engine, a fixed fuel tank, or a fuel-burning appliance.

3. Sail and powered pleasure craft 6-9 m in length require:
   - One 5 BC extinguisher if equipped with a motor and
   - A second 5 BC extinguisher if the craft is equipped with a fuel-burning appliance

   - Sail and powered pleasure craft 9-12 m in length require:
     - One 10 BC extinguisher if equipped with a motor and
     - A second 10 BC extinguisher if the craft is equipped with a fuel-burning appliance

4. Mandatory for pleasure craft 12-24 m in length and must be located at:
   - Each access to any space where a fuel-burning appliance is fitted;
   - The entrance to any accommodation space; and, or
   - The entrance to the machinery space.

5. For a human-powered pleasure craft (such as a paddleboat, a water cycle, or a kayak), If every person on board is wearing a personal flotation device or lifejacket of an appropriate size, then only the following safety equipment is required on board:
   - A sound-signalling device;
   - A watertight flashlight, if the paddleboat, watercycle or sit-on-top kayak is operated after sunset, before sunrise, or in periods of restricted visibility (fog, falling snow, etc.).

Under all other circumstances, the requirements for human-powered craft must be followed.
For other-than-human-powered pleasure craft, the following exceptions exist:

- **Sailboard and Kiteboard** - If the operator of a sailboard or kiteboard is wearing a lifejacket or personal flotation device of appropriate size, then only the following equipment is required on board:
  1. A sound-signalling device; and
  2. A watertight flashlight, if the craft is operated after sunset, before sunrise, or in periods of restricted visibility.

Under all other circumstances the safety equipment requirements for pleasure craft other than human-powered pleasure craft up to 6 m (19'8") must be followed.

- **Personal watercraft** - If everyone onboard the PWC is wearing a lifejacket or personal flotation device (PFD) of appropriate size, then only the following equipment is required on board:
  1. A sound-signalling device;
  2. A watertight flashlight or three flares other than smoke signals;
  3. A magnetic compass, if the PWC is navigated outside of seamarks; and
  4. Navigation lights that meet the requirements set out in the Collision Regulations, if the pleasure craft is operated after sunset, before sunrise, or in periods of restricted visibility (fog, falling snow, etc.).

Under all other circumstances, the safety equipment requirements for pleasure craft other than human-powered pleasure craft up to 6 m (19'8") must be followed.

- **A passive radar reflector** mounted above the superstructure, not less than 4 m (13.1 ft) above the water, is required on pleasure craft less than 20 m (65.6 ft) or constructed primarily of non-metallic materials unless, it operates on water where other vessels do not use radar or if it is not possible to install the device as specified without major modification to the vessel.

- Requires lifebuoy with self-igniting light or attached to buoyant line at least 15 m long.

- Requires two SOLAS lifebuoys. One attached to buoyant line at least 30 m long and one equipped with a self-igniting light.

**Note:** Table 2-1 is a summary of required equipment based on vessel type and size. A type-by-type analysis of vessels is beyond the scope of this course. For more detailed information on what equipment is needed on your type of pleasure craft, consult the Transport Canada Marine Safety web site:

- [http://www.tc.gc.ca/eng/marinesafety/menu.htm](http://www.tc.gc.ca/eng/marinesafety/menu.htm)
SUPPLEMENTAL EQUIPMENT

The following items are not required under the Small Vessel Regulations but they are recommended by freecourse.ca as standard equipment on pleasure craft if you plan to be on the water for more than a few hours:

- Spare clothing in a watertight bag;
- Survival kit in a watertight bag (containing potable water, emergency rations, flashlight, whistle, and knife);
- Tool kit (containing adjustable wrench, socket set, spark plug wrench, screwdriver, hammer, vise-grip pliers, slip-joint pliers, and needle-nose pliers);
- Spare parts (including fuses, bulbs, spare propeller, shear and cotter pins, nuts and bolts, penetrating oil, lubricating oil and grease, duct tape, electrical tape, filters, spark plugs, fan belt, spare fuel line, and hose clamps);
- Tools and materials to temporarily stop a hull leak;
- First aid kit stored in a dry place; and
- VHF radio.

A racing pleasure craft and its crew may carry alternative safety equipment when engaged in formal training under the supervision of a coach, in an official competition organised by a club or governing body, or in final preparation for an official competition.

Transport Canada’s Pleasure Craft Courtesy Check Program

Transport Canada offers free courtesy checks through the Canadian Coast Guard Auxiliary, the Canadian Power and Sail Squadrons, and other organisations. If you agree to a check, a trained volunteer will check your boat for required safety equipment, identify any problems, and discuss general boating safety issues. There are never any penalties involved in courtesy checks. Thus, they are a great opportunity to receive expert advice.
2.2 COLLISION REGULATIONS

Travelling on a body of water is much like driving a car across a broad surface upon which other cars can approach yours at any speed and from any direction. So, when your vessel’s course crosses course with another vessel’s, who has the right of way?

The Collision Regulations set out “rules of the road” to help boaters to determine who has the right of way; i.e.: which vessel maintains its course and speed (referred to as the stand-on vessel) and which vessel gives way (referred to as the give-way vessel). When giving way, one stays well clear of the other vessel. These regulations (the rules of the road for boaters) apply to all sizes of all types of vessels (from small pleasure craft up to large freighters) operating on any navigable Canadian waterway.

Failure to comply with the Collision Regulations can result in fines, imprisonment, or both.

To understand how the Collision Regulations operate, one must first think of the space around any vessel as being divided into three sectors:

1. Port sector,
2. Starboard sector, and

2.2.1 WHEN POWER-DRIVEN VESSELS MEET

The rules of the road for when power-driven vessels meet can be summarised as:

- **Port sector**: If a power-driven vessel approaches your power-driven vessel from this sector, then you have the right of way (maintain your course and speed with caution).
- **Starboard sector**: If a power-driven vessel approaches your power-driven vessel from this sector, then you are give-way vessel (take early and substantial action to stay well clear of the other vessel).
- **Stern sector**: If a power-driven vessel approaches yours from this sector, then you have the right of way (maintain your course and speed with caution).
If a power-driven vessel approaches your powered vessel from your port sector, then yours is the **stand-on** vessel. Maintain your course and speed (with caution) and be ready to take evasive action quickly if the approaching vessel does not take appropriate action to stay clear of you.

If a power-driven vessel approaches your powered vessel from within your starboard sector and there is a risk of collision, then yours is the **give-way** vessel. You must alter your course and speed to take early and substantial action to stay well clear of the other vessel as well as avoid passing in front of the other craft. Take action early and substantially to make your intentions clear.

If a power-driven vessel approaches your power-driven vessel from directly in front of you (i.e. on a reciprocal course), then you should deliver one short-blast sound signal and alter your course to starboard so that your vessel passes the approaching vessel on your port side. (Note: The term “short blast” means a blast of about one second’s duration. The term “prolonged blast” means a blast of from four to six seconds’ duration).
If any vessel approaches your vessel from within your stern sector, maintain your course and speed (with caution). Any vessel overtaking another must take early and substantial action to keep well clear of the vessel being overtaken (i.e.: the vessel being overtaken has the right of way). This rule applies to both powered vessels and sailing vessels.

Note: Whenever passing another vessel (whether giving way or standing on), always ensure that you alter your speed to reduce your wake when passing other vessels (especially smaller vessels) so as to avoid capsizing smaller vessels (such as rowboats, canoes, and kayaks).

If your power-driven vessel is on a crossing course with either a sail-driven vessel or a vessel that is fishing with nets or trawls, then you must take early and substantial action (alter your course and speed) to keep well clear of the other vessel.

(Note: sail-driven vessels must keep clear of vessels fishing with nets or trawls.)

Note: In all of the preceding examples of crossing situations, the give-way vessel must always give way early, obviously, and substantially and pass to the stern of the stand-on vessel (i.e.: never get as close to another vessel as pictured in the preceding diagrams).
The *Collision Regulations* state that **less-manoeuvrable vessels must always be given the right of way.** Thus, a vessel of limited manoeuvrability (such as a freighter or tanker in a shipping channel, a vessel towing a barge, or a vessel that is fishing with nets or trawls) is usually the stand-on vessel when on a crossing course with a powered vessel that is fully manoeuvrable (where the term “manoeuvrable” means that the vessel is unimpaired in its ability to change course, speed up, or slow down).

Sport fishing boats and water-ski boats are considered fully manoeuvrable and are not exempt from the *Collision Regulations*.

To summarise, a **power-driven vessel that is underway and fully manoeuvrable shall keep out of the way of:**
- A vessel not under command
- A vessel restricted in her ability to manoeuvre
- A vessel engaged in fishing
- A sail-driven vessel

**Navigating in Narrow Channels**

On inland waters there are circumstances where a smaller vessel, even if it is the stand-on vessel, must give way to a vessel that is large or for which manoeuvring is difficult. For instance, if two vessels meet in a narrow channel where tide or river flow creates dangerous currents, then the vessel going down river automatically has the right of way.

In addition, a vessel proceeding along the course of a narrow channel or fairway shall always keep as near to the outer limit of the channel or fairway which lies on her starboard side as is safe and practicable.
Navigating in or near Commercial Shipping Channels

As a general rule, smaller vessels and vessels engaged in fishing should steer clear of commercial shipping lanes and inshore traffic zones and must use extreme caution when crossing a shipping channel or inshore traffic zone.

Always keep these points in mind when navigating in commercial shipping channels or inshore traffic zones:

- Respect right-of-way rules and keep clear of the path of larger vessels;
- Do not obstruct the channel; for example, never moor to a navigational buoy;
- Be seen. A radar reflector helps larger, less manoeuvrable vessels detect your presence on their radar screens; and
- Have on board the marine charts for the area in which you are navigating.

When operating a small craft in or near a shipping lane, navigate in groups of other small boats, when possible, to make yourself more visible to larger vessels.

Both power-driven and sail-driven vessels that are less than 20 m (65.6 ft) in length must give way to a vessel that can safely navigate only in a narrow channel or that is following a traffic lane. In such cases the smaller vessel not confined to a traffic lane is always the give-way vessel regardless of its course.
Smaller vessels should also always keep clear of docked ferries, ferries in transit, or a vessel that is being towed. Note that a ferry will signal that it is leaving dock by sounding one prolonged blast on a horn (a prolonged blast is 4 to 6 seconds in length).

Also, be aware that many ferries are attached at both ends to a cable, which they follow back and forth between docks. Such cables are sometimes attached below the waterline out of sight. When crossing between a ferry and a dock, you may strike the cable with the lower end of your motor, thus disabling the motor, or trapping your boat on the cable.

Under Rule 10 of the *Collision Regulations*, all vessels must always be prepared to yield to any vessel for which manoeuvrability is constrained by its draft. And under Rule 16 of the *Collision Regulations*. Any vessel directed by a larger vessel to give way must always do so.

**Using Sound Signals to Avoid a Collision**

Sound signals (blasts on an air horn, fog horn, siren, or whistle) are used to both attract attention and indicate a vessel's intentions. For instance, during low visibility conditions, sound signals are used to attract attention:

- **Signals used during periods of restricted visibility** - When you are not in sight of other vessels and you are in or near an area of restricted visibility, you must proceed at a safe speed and signal your presence by sounding a combination of long and short blasts using an approved sound signalling device or appliance.

In addition, you can use sound signals to signal your intentions, such as when departing a dock:

- **Departing a dock** – a vessel will signal that it is leaving dock by sounding one prolonged blast on a horn.

**Pursuant to Rule 34 of the Collision Regulations, on inland waterways, sound signals are also used to communicate when you are manoeuvring in a particular direction:**

- **One short blast** – One short blast means: “I am altering course to starboard”
- **Two short blasts** – Two short blasts means: “I am altering course to port”
- **Three short blasts** – Three short blasts means: “I am manoeuvring using astern propulsion” (i.e.: I am moving backwards);
- **Four short blasts** – Four short blasts means: “I am unable to manoeuvre”.
- **Five short blasts** – One employs five blasts on a horn when one vessel fails to understand the intentions of another.
The *Collision Regulations* require that you carry a sound signal device to alert other vessels to your presence or operational intentions. Sound signals are necessary under certain circumstances, including meeting, crossing, and overtaking situations. In addition, all vessels are required to use a sound signal during periods of fog, heavy rain, or other conditions of reduced visibility.

A vessel 12 m (39 ft) or more in length shall be provided with a whistle, a vessel of 20 metres or more shall be provided with a bell in addition to a whistle. The sound signalling device must have an audible range of at least 1.5 nautical miles for vessels under 20 m (65.6 ft) in length, and 1.0 nautical miles for vessels 20 to 75 m (246 ft) in length, and be capable of a "prolonged blast" (a blast of four to six seconds duration).

Sound-producing devices can be either hand-, mouth-, or power-operated for commercial vessels less than 12 metres in length, provided the sound signalling device is able to make an efficient sound signal. The sound signalling devices must also be capable of a producing a four to six second blast with a range of 0.5 nautical miles. A compressed air horn is an acceptable sound signalling device under the regulations.
2.2.2 WHEN SAIL-DRIVEN VESSELS MEET

A sail-driven vessel is any craft under sail, provided that propelling machinery, if fitted, is not being used. The deciding factor in establishing right of way when sailing vessels meet is to determine which side of both vessels is the "windward side".

Under the Collision Regulations, the “windward side” of a sail-driven vessel is defined as the side of the vessel that is opposite the side on which the main sail is set (being carried). If the sail is lying on (carried on) the starboard (right) side, then the port (left) side of the vessel is the windward side. The Rules of the Road for sailing vessels can be summed up in the following crossing situations:

- A sail-driven vessel with port as its windward side must take early, obvious, and substantial action to keep clear of any sailing vessel that has starboard as its windward side, i.e. the vessel with the wind on its starboard side is the stand-on vessel. Thus, in the crossing situation depicted at left, vessel A must alter course and speed to stay clear of vessel B.

- If two sail-driven vessels both have the same windward side, then the sail-driven vessel to windward (the vessel that is upwind) must take early and substantial action to keep well clear of the leeward vessel (the vessel that is downwind). Thus, in the crossing situation depicted on the right, Vessel B must alter course and speed to stay clear of Vessel A.
If a sail-driven vessel has the port (left) side as its windward side but the operator cannot determine with certainty if an upwind (windward) sailing vessel has the wind on its port or starboard side, then the downwind sailing vessel with the wind on its port side will take early and substantial action to keep well clear of the upwind vessel.

A sail-driven vessel underway shall keep out of the way of:

- A vessel not under command (a vessel adrift).
- A vessel restricted in its ability to manoeuvre.
- A vessel engaged in fishing.
2.2.3 NAVIGATION LIGHTS

The colour and location of a vessel’s navigation lights (also called running lights) vary depending on the vessel’s size, whether it is sail-driven or power-driven, and whether it is underway or at anchor. When on a crossing course with another vessel the arrangement and colours of the lights that you see on the approaching vessel will let you determine if you are the stand-on vessel or the give-way vessel.

![Diagram of navigation lights]

The two coloured lights on the sides of a vessel at the front (bow) are called sidelights. The port (left) sidelight is red-coloured and the starboard (right) sidelight is green (one can remember that the port sidelight is red-coloured by remembering that port is a kind of red wine). The stern light is always white in colour and shines directly aft.

The white light that shines forward and is mounted higher than the sidelights is referred to as a masthead light. This light is turned on to indicate that the vessel is power-driven.

Navigation (running) lights must be displayed on any power-driven or sail-driven pleasure craft that operates between sunset and sunrise or during periods of restricted visibility, such as is caused by fog, mist, or rain.

![Diagram of navigation light arcs]

The port sidelight displays a red-coloured light through a horizontal arc of 112.5° from straight ahead to 22.5° abaft the beam. The starboard sidelight displays a green-coloured light through a horizontal arc of 112.5° from straight ahead to 22.5° abaft the beam. The stern light is white-coloured and displays light through a horizontal arc of 135° across the stern.
When underway at night or in reduced visibility, sail-driven vessels must display sidelights and a stern light.

When underway at night or in reduced visibility, power-driven vessels must display sidelights, a stern light, and a masthead light, which faces forward and is mounted over the fore and aft centreline of the vessel, higher than the sidelights, and displaying a white light through an arc (angle) of 225°.

If a power-driven vessel underway is less than 12 m (39 ft) long, it may display from sunset to sunrise an all-round white light and sidelights (instead of a masthead light forward, sidelights, and a stern light). The all-round light must be higher than the sidelights and visible to all directions.

The masthead light lets you determine if another vessel is under power and, thus, whether you must stand on or give way. Any sailboat using its engine (i.e.: when a sailboat is power-driven) must display lights to indicate that it is a power-driven vessel (i.e.: sidelights, a stern light, and a masthead light which faces forward and is mounted over the fore and aft centreline of the vessel, higher than the sidelights, and displaying a white light through an angle of 225°).
During daytime operation, a vessel proceeding under sail when also being propelled by machinery must exhibit a conical shape, apex downward.

Vessels less than 12 metres in length are not required to exhibit the day shape in the Canadian waters of a roadstead, harbour, river or inland waterway. Sailing vessels operating under machinery, or under sail and machinery are considered to be power-driven vessels and must display the lights prescribed by the *Collision Regulations* for a power driven vessel.

When encountering another vessel at night, (such as the one pictured at right), the first question an operator must ask oneself is this:

*Is that vessel a power-drive vessel? Or is it sail-driven?*

In the case of the vessel pictured at the right, the presence of an all-round light clearly identifies the vessel as a being power-driven.
Following are some examples of crossing situations that you as a power-driven operator might encounter while underway at night.

- If you meet a vessel on which you can see a green sidelight but no masthead light, then it is sail-driven and you are the give-way vessel. Take early, obvious, and substantial action in altering course and speed to stay well clear the stand-on vessel and pass it abaft its stern.

- If you meet a vessel on which you can see a green-coloured sidelight and a white masthead light, then the vessel is under power and you are the stand-on vessel. Maintain your course and speed (with caution). Note that the arrangement of running lights in this crossing situation is much like traffic lights at a street intersection (i.e.: if you are the stand-on vessel, then you should be able see a green-coloured sidelight (and a while-coloured masthead light or all-round light) on the other vessel.

- If you meet a vessel on which you can see a red sidelight and a white masthead light, then that vessel is under power and you are the give-way vessel. As in the previous example, the arrangement of running lights in this crossing situation is much like traffic lights at a street intersection (i.e.: if you can see the red sidelight on a motorboat crossing your course, then you do NOT have the right of way. Just like driving a car, when you have a red light when approaching traffic lights, then you must give way.

- If you come upon a vessel displaying a white stern light, then you are overtaking that vessel; you must alter course and speed to stay well clear of the vessel being overtaken.
If you meet a vessel on which you can see both sidelights (a green sidelight and a red sidelight) at the same time, then you are on a reciprocal course (head-on collision course) with another vessel and you must alter course and speed to give way to that vessel. To do so, you sound one short-blast sound signal and alter course to starboard so as to have the other vessel on your port side as you pass.
2.2.4 Other Navigation Lights

Other navigation lights you should be familiar with include:

- **Towing light** – a yellow-coloured light that is positioned at the stern to indicate a vessel is being towed.
- **Flashing light** – a light flashing at regular intervals at a frequency of 120 flashes or more per minute.
- **Special flashing light** – a yellow-coloured flashing light flashing at regular intervals at a frequency of 50 to 70 flashes per minute. Placed at the forward end of a vessel engaged in towing or a vessel being pushed.
- **Blue flashing light** – a blue-coloured, all-round flashing light that is used on any vessel operated by government, police, or the Canadian Coast Guard.

If a vessel under 50 m in length is at anchor, it must display an all-round light in the forepart, which is a white light that displays an unbroken arc of light through a horizontal angle of 360°.

Sail-driven vessels under 20 m in length have the option of displaying a tri-light at the top of the mast (in lieu of sidelights and a stern light) while underway between sunset and sunrise. A tri-light is divided into three sectors: a red light showing through a horizontal arc of 112.5°, a green light displayed through an arc of 112.5°, and a white light (to show across the stern) displayed through an arc of 135°.
For non-powered vessels, as well as sailboats that are less than 7m (23 ft) in length, a watertight flashlight qualifies as navigation lights.

For sailing vessels that are under 7 metres in length and for which navigation lights are impractical, the operator must have readily at hand a flashlight or lantern showing a white light so that an approaching vessel can be signalled in time to avoid a collision. It is sometimes effective to use the light to illuminate the sail.

Vessels under oars or paddles (rowboats, canoes, and kayaks,) without a power supply to operate navigation lights must carry a flashlight or lantern showing a white light to signal their presence to other vessels when travelling after dark.
Lights for Vessels Engaged In Fishing (no trawl)

A vessel engaged in fishing, other than trawling, while underway or at anchor, shall exhibit:

a) Two all-round lights in a vertical line, the upper being red and the lower white, or a shape consisting of two cones with their apexes together in a vertical line one above the other;

b) When there is outlying gear extending more than 150 metres horizontally from the vessel, an all-round white light or a cone apex upwards; and

c) When making way through the water, in addition to the lights prescribed in this paragraph, sidelights and a stern light.

Lights for Vessels Engaged In Fishing (with trawl)

A vessel when engaged in trawling, by which is meant dragging through the water a net or other apparatus used as a fishing appliance, shall exhibit:

a) two all-round lights in a vertical line, the upper being green and the lower white, both lights must be visible for 360 degrees; (or in daytime: or a shape consisting of two cones with their apexes together in a vertical line one above the other)

b) a masthead light abaft of and higher than the all-round green light (a vessel of less than 50 metres in length shall not be obliged to exhibit such a light but may do so); and

c) when making way through the water, in addition to the lights prescribed in this paragraph, sidelights and a stern light.
Lights for Vessels Engaged In Towing

When tugs are towing barges or ships, the length of the tow-line can be so great that the line hangs below the surface of the water and is virtually invisible. If a small vessel strikes the submerged tow-line it can capsize and then run down by the barge. Never pass between a tug and its tow. Make sure you are aware of the special lights displayed by tugs towing barges or other vessels or objects.

In the case of a power-driven vessel towing another vessel from her stern, the towing vessel must exhibit:

1. Sidelights and stern light.
2. Towing light (yellow light with the same characteristics as the stern light).
3. Two masthead lights in a vertical line (three of these lights if the tow exceeds 200 metres).
4. A diamond shape where it can best be seen, if the tow exceeds 200 metres.

In the case of the vessel being towed, it must exhibit:

1. Sidelights and stern lights.
2. A diamond shape where it can best be seen if the tow exceeds 200 metres.
3. If it is impractical for the vessel being towed to comply with the lights stated above, it shall carry one all-around white light at each end (fore and aft).

As per Rule 24 (i) of the Collision Regulations, in addition to operating its regular navigation lights, if a pleasure craft (or any other type of vessel) is engaged in towing another vessel in distress or otherwise in need of assistance, then both vessels shall take all possible measures to indicate the nature of the relationship between the towing vessel and the vessel being towed. At the very least, both vessels must illuminate the tow-line to alert other vessels to its presence.
Lights for Vessels Engaged in Pushing

A power-driven vessel when pushing ahead (or towing alongside) shall exhibit:

a) two masthead lights in a vertical line;

b) sidelights; and

c) a stern light.

Lights for Vessels Engaged in Pushing (Rigidly Connected)

When a pushing vessel and a vessel being pushed ahead are rigidly connected in a composite unit they are regarded as a single, power-driven vessel and must exhibit the lights normally displayed by a power-driven vessel underway at night.
2.3 VESSEL OPERATION RESTRICTION REGULATIONS

The Vessel Operation Restriction Regulations (VORRs) regulate the operation of small vessels on specific bodies of water in Canada.

These regulations may impose shoreline speed zones (whether posted or not), they may restrict the maximum horsepower on powerboats, and they may prohibit certain types of vessels from a body of water. For instance, a body of water may be restricted to only non-powered boats such as canoes and sailboats.

2.3.1 Age Restrictions

Under the Vessel Operation Restriction Regulations:

- Children less than 12 years old may only operate powered vessels with motors up to 10 hp (7.5 kW) while unaccompanied by an adult.
- A person who is between 12 and 16 years old may only operate vessels powered by motors no greater than 40 hp (30 kW) while unaccompanied by an adult.
- No-one under 16 years of age may operate a personal watercraft. (PWC) The regulations do not specify power restrictions for boaters 16 years of age or older.

2.3.2 Restrictions on Activities

The Vessel Operation Restriction Regulations may also restrict when and where certain boating activities are permitted. Water-skiing, for instance, might be restricted to certain parts of a lake or to certain times of the day. Boaters should always be on the lookout for boating restriction signs. Failing to comply with a restriction (either posted or not) can result in substantial fines for the operator.

Under the VORRs, operators are responsible for knowing when and where restrictions on boating activities exist; i.e.: claiming ignorance of any local restriction on boating activities is not a valid reason for failure to obey local restrictions. Thus, operators are required to be familiar with the waterways in which they operate (i.e.: they must be aware of all local water hazards) as well as any local boating restrictions (i.e.: be aware of all local speed limits, activity restrictions, and noise restrictions).
To ensure compliance with local vessel operation restrictions, all operators should familiarise themselves with the *Vessel Operation Restriction Regulations* signage system. Some samples are shown here:

![No internal combustion or steam engines permitted](image1)

![Power limit (7.5KW = 10 hp)](image2)

![Speed limit (usually 5, 10, 25, 40, or 55 km/h)](image3)

The main borders on restriction signs are orange in colour. If a special condition applies to the restriction (such as times of day when an activity is allowed), then a section of the border will be green in colour. For example, if special conditions apply to a time restriction, (time of day, days of the week, or months of the year) then the times when an activity is permitted will be indicated within the green border (for time restriction conditions, red indicates the prohibition period and green indicates the permissible period of operation). If the border of the restriction sign incorporates an arrow shape, then the restriction applies in the direction indicated by the arrow.

![No power vessels between the hours and days indicated in red.](image4)

![No water skiing north of the restriction sign](image5)

![No power vessels in the direction of the arrow](image6)
Universal Shoreline Speed Limit

Not all boating restrictions are posted. For instance, within 30 metres of the shoreline, a 10 km/h speed limit is in effect on all waters within British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, and Nova Scotia as well as on selected lakes and rivers in some other provinces, whether or not speed limit signs are posted. There are some exemptions to these restrictions; they include:

- Water skiing, where the towboat follows a course perpendicular to the shoreline (i.e.: going away or returning);
- Where buoys designate that another speed is permitted;
- In rivers or canals less than 100 m wide; and

All operators are legally obligated to comply with all speed restrictions. Since not all restrictions can be posted (it would require millions of signs and buoys), it is the responsibility of the boater to check locally and be fully aware of all speed restrictions (or any other Vessel Operation Restriction Regulations) in effect locally. In other words, claiming ignorance of speed limits and shoreline restrictions is not an acceptable defence.

2.3.3 Noise Restrictions

In addition to the above restrictions, on all Canadian waters any motorized pleasure craft equipped with a motor other than a stock (unmodified) outboard engine must have a muffler and use it while operating within five (5) nautical miles (9.26 km) of shore.

This rule does not apply to you if your vessel was built before January 1, 1960, or if you are in an official competition, or in formal training or final preparation for an official competition.
2.4 CHARTS AND NAUTICAL PUBLICATIONS REGULATIONS

Marine charts are graphic representations depicting water areas, including depths, underwater hazards, traffic routes, aids to navigation, and adjacent coastal areas. Chart #1 of a set of charts will usually contain definitions of symbols, abbreviations, acronyms, and terms that appear on the other pages of the charts.

Canadian marine charts are published by the Canadian Hydrographic Service of the Department of Fisheries and Oceans. Topographic maps also provide some information that is useful to users of waterways.

By knowing the draft of one’s vessel, one can use marine charts to verify which waterways provide safe passage for your vessel. You should carry and review marine charts for all waterways where you plan to operate.

The Charts and Nautical Publications Regulations require operators of all vessels to have on board the latest edition of the largest scale chart, documents, and publications for each area that they navigate. It is important to keep these charts and publications up to date so that you can determine the latest changes on routes, buoys, and water depths. One can keep charts and nautical publications up to date by referring periodically to the Canadian Coast Guard’s monthly, Notices to Mariners, which are available at this web site:
http://www.notmar.gc.ca/

The master and owner of a vessel of less than 100 tons are not required to have on board the charts, documents, and publications if the person in charge of navigation has sufficient knowledge of the following information, such that safe and efficient navigation in the area where the vessel is to be navigated is not compromised:

a.) The location and character of charted
   - shipping routes,
   - lights, buoys, beacons, and marks, and
   - navigational hazards; and

b.) The prevailing navigational conditions, taking into account such factors as tides, currents, ice, and weather patterns.

When operating in areas influenced by tides, it is recommended that you also carry on board a copy of the Canadian Tide and Current Tables. This publication provides daily predictions of the times of slack water, of the times and rates of maximum flood and ebb streams, and the direction of water flow.
2.5 CRIMINAL CODE OF CANADA

A pleasure craft operator charged with an offence under the Criminal Code of Canada can receive a fine, jail time, or both. Operators can be charged with a criminal offence under any of the following sections of the code:

Section 249 (1)(b) – This section of the code states that it is an offence to operate any type of pleasure craft in a fashion that is dangerous to the public. Thus, it is illegal if an operator operates dangerously close to other vessels, or operates at dangerously high speeds, or disturbs swimmers with the vessel’s wake, or fails to slow the vessel when visibility is reduced.

Section 250 (1) – This section states that a pleasure craft operator must have a responsible person as spotter to keep watch on any person being towed. In other words, a rear-view mirror does not count. In addition to the driver, there must be a human being on board, facing aft, acting as spotter, and reporting to the driver.

Section 251 (1) – Under this section, it is an offence for an operator to knowingly operate a vessel that is unseaworthy. A vessel is considered seaworthy if the hull is undamaged and appropriate for the type of sea condition, the engine is in conformance to the hull compliance notice, the vessel is not overloaded, and all equipment is in good working order.

Section 252 – Under this section, if you are involved in an accident with another vessel you must render assistance to that vessel and if you happen upon the scene of a collision, you must stop and offer assistance. In addition, operators of vessels involved in an accident must exchange their names and addresses.

Section 253 (a) – This section of the code makes it a criminal offence to consume drugs or alcohol while operating any type of vessel.

Section 253 (b) – This section of the code makes it a criminal offence to operate a vessel while in any way impaired by drugs or alcohol. A person is considered to be legally impaired if one has a blood alcohol level higher than 0.08. The consumption of alcohol, drugs, or controlled substances can rapidly and significantly impair a person’s ability to operate a pleasure craft. Just as with automobiles, never hitch a ride with a boat operator who is impaired; instead, take action (including calling the police) to prevent an impaired person from operating a vessel.
Section 254(5) and 255 – Under section 254(5), it is an offence to, without reasonable excuse, fail or refuse to comply with a demand made by a peace officer. Under Section 255, anyone who commits an offence under section 253 or 254 is guilty of an offence and liable to punishment, namely:

1. For a first offence, to a fine of not less than six hundred dollars,
2. For a second offence, to imprisonment for not less than fourteen days, and
3. For each subsequent offence, to imprisonment for not less than ninety days.

**Special Note**

Section 1007 of the *Small Vessel Regulations* of the *Canada Shipping Act, 2001* reads as follows: Section 1007 - Prohibition against Careless Operation - No person shall operate a vessel in a careless manner, without due care and attention or without reasonable consideration for other persons. Examples of behaviors which are considered careless under Section 1007 include (but are not limited to) the following:

- Operating vessel at high engine regime in circular or crisscross patterns for extended periods of time in the same location;
- Jumping waves or the wake of another vessel unreasonably close to that vessel or so as to cause engine RPM to peak and make unusual or excessive noise;
- Weaving through congested traffic at more than slow speed;
- Swerving at the last possible moment to avoid collision (playing chicken);
- Operating a vessel at a speed higher than is necessary to maintain steerage way when near swimmers, or non-powered vessels.

Section 372 – Under this section of the code it is an offence to send false messages or signals. If a rescue unit is responding to a false call for help, it is unavailable for a real emergency, which could cost somebody their life.

Section 439 – This section prohibits interfering in any way with any aid to navigation. Under this section, it is an offence to conceal, remove, or alter an aid to navigation (such as a buoy, day beacon, signal, or sea-mark). Tying up to a buoy, for instance, is illegal since the mass of your vessel and engine can cause the buoy’s anchor to be dragged (thus, removing the buoy from its location). In addition, anchoring next to a buoy is also illegal since your pleasure craft can conceal or partially conceal the buoy from other boaters.

Section 259(4) – Under this section it is an offence to operate a vessel while disqualified or legally prohibited from doing so.
2.6 Enforcement

An act (or any code, guideline, or regulation enabled under an act) is a law that prescribes punishments for non-compliance with the law. It is important to remember that the requirements set out in the laws discussed in this course are minimum requirements. It is recommended that boaters always endeavour to exceed the requirements of the law.

There are no age exemptions and no grandfather clauses for any of the acts and regulations (laws) that apply to boaters; they apply to all boaters in Canada (except for Nunavut). The laws that apply to boaters are enforced by the Royal Canadian Mounted Police (RCMP), provincial police forces, municipal police forces, and other designated enforcement officers. You must comply with the demands of any enforcement officer.

Enforcement officers are tasked with verifying that you are complying with the rules and, thus they are empowered to:

- Monitor for careless operation;
- Demand that you stop;
- Go on board and inspect your vessel;
- Check for all required safety equipment;
- Verify that you are carrying photo identification;
- Verify that you are carrying proof of competency;
- Ask any pertinent questions; and
- Hand out fines as required.

Any government vessel or any vessel that is owned or operated by a harbour, river, county or municipal police force may exhibit as an identification signal a blue-coloured flashing light when the vessel is providing assistance or is engaged in law enforcement duties.

This free boating safety course is solely for the use of Candidates preparing to write an Operator Proficiency Test with freecourse.ca. Please see our list of Testing Centres for the location of a testing agent near you. Alternatively, you may write the test by mail; see our Home Page for instructions.
MODULE 2 REVIEW QUIZ

The questions included in the following quiz are not sample questions taken from actual tests. They are provided merely to acquaint you with the breadth and depth of knowledge required to pass a Transport Canada operator competency test. Merely memorizing these questions and answers will not be adequate preparation to pass the operator test; you must acquire a thorough understanding of the material contained in all five modules of this free online course; everything in this course is a potential test question.

QUESTIONS

Select the response that best answers the question.

1. The weights of what items are included in a pleasure craft’s maximum carrying capacity as indicated on a Compliance Notice?
   a.) Passengers and cargo
   b.) Engine, fuel, and battery
   c.) Lifejackets, PFDs, and other safety equipment
   d.) All of the above

2. Why is it important to keep the safety equipment on board your boat in good working order?

3. The Vessel Operation Restriction Regulations require that each craft (regardless of the type of craft) have on board how many Canadian-approved personal flotation devices?

4. What organisations approve PFDs and lifejackets in Canada?

5. When must a PFD or a lifejacket be replaced?

6. What is the major factor governing what safety equipment must be carried on board a pleasure craft?
   a.) Number of people on board
   b.) Type of equipment on board
   c.) Size of motor installed on the boat
   d.) Length of the boat

7. Which of the following should you always have on board your pleasure craft?
   a.) An approved PFD for each person on board
   b.) A hand bailer
   c.) Tool kit and spare parts
   d.) All of the above

8. Which types of pleasure craft must carry a buoyant heaving line?
9. What is the minimum required length of a buoyant heaving line?

10. When are reboarding devices required on board a pleasure craft?

11. What are some types of approved reboarding devices?

12. A non-metallic pleasure craft sitting low in the water is essentially invisible to radar. When operating in an area frequented by ships navigating by radar, what can the operator of a pleasure craft do to make his/her vessel more visible to radar?

13. Flares are approved for how many years from their date of manufacture?

14. What is the most common feature of all pyrotechnic distress devices (distress flares)?

15. What are two exceptions to the requirement that there must be a PFD or lifejacket that is in good condition and of appropriate size to fit every person onboard?
   a.) Infants over 9 Kg (20 lb) and any person whose chest size exceeds 140 cm (55 in).
   b.) Infants under 9 Kg (20 lb) and any person whose chest size exceeds 140 cm (55 in).
   c.) Infants over 9 Kg (20 lb) and any person whose chest size is under 140 cm (55 in).
   d.) Not required if the person wearing the device has any physical disability.

16. What is an appropriate way to clean a soiled PFD?
   a.) Send it to a drycleaner
   b.) Clean using a solvent such as paint thinner, naphtha, or Varsol
   c.) Use mild hand soap or dish soap
   d.) Use detergent and stain removers

17. What is the major difference between a PFD and a lifejacket?
   a.) PFDs are minimum mandatory equipment while lifejackets are optional
   b.) PFDs are designed simply to turn an unconscious person right side up in the water but a lifejacket must be able to keep a conscious person’s chin out of the water.
   c.) Lifejackets are designed to turn an unconscious person right side up in the water. A PFD simply has to keep a conscious person’s chin out of the water.
   d.) There is no difference

18. Which of the following statements regarding Small Vessel Lifejackets and SOLAS lifejackets is most true?
   a.) SOLAS lifejackets are approved only for vessels less than 6m in length
   b.) SOLAS lifejackets are approved for all vessels
   c.) Small Vessel Lifejackets are approved all vessels
d.) Small Vessel Lifejackets are approved for only for vessels greater than 6m in length.

19. What is a compliance notice?

20. What information is shown on a compliance notice?
   a.) The maximum load that the vessel can carry;
   b.) The maximum number of adult-sized people that the vessel can carry
   c.) If the vessel is designed to be fitted with an outboard motor): The recommended safe limit of engine power recommended for the hull.
   d.) All of the above

21. When does the information on your craft’s compliance notice NOT apply?
   a.) On holidays, when one is allowed to overload a vessel
   b.) In fair weather on calm water
   c.) In stormy weather with high waves
   d.) In stormy weather or in high waves.

22. What is the main requirement for use of an inflatable PFD?
   a.) You must be wearing an inflatable PFD in stormy weather
   b.) You must be wearing an inflatable PFD at all times, even below-deck.
   c.) You must be wearing an inflatable PFD for it to be approved on any open boat.
   d.) It must be possible to manually inflate the PFD manually.

23. In what type of activity can one NOT use an automatically inflating PFD?

24. What vessels must carry a hand bailer or a manual water pump?

25. What is the primary requirement of a manual water pump?

26. What factors determine the number and type of flares to be carried on board?

27. What are the different types and sizes of fire extinguishers?

28. What type of fire extinguisher is required on any motorised pleasure craft?

29. What factors determine how many fire extinguishers you must carry on your pleasure craft?

30. Where should fire extinguishers be stored?

31. What should you do every month with all fire extinguishers on board?

32. What fines do you risk if you request a Pleasure Craft Courtesy Check?

33. You have determined that your vessel is the give-way vessel in a crossing situation. What is the standard method for giving way?
34. Two pleasure craft are approaching each other on a reciprocal course (head-on). To pass by each other safely, should they each alter course to port or to starboard?

35. Two powerboats are crossing courses (i.e.: there may be a risk of collision; thus, the Collision Regulations apply). Boat A will cross in front of Boat B from Boat B’s port sector. Which is the give-way vessel?

36. A sailboat usually has the right of way over a power-driven vessel except:
   a.) When it is less than 20 m in length and crosses path with a large vessel that must remain in a shipping lane.
   b.) When it crosses path with a commercial fishing vessel towing nets.
   c.) When the sailboat is under power
   d.) All of the above

37. A vessel being overtaken must:
   a.) Move to port
   b.) Move to starboard
   c.) Maintain course and speed with caution
   d.) Maintain course but slow down

38. What should you do when operating your small pleasure craft in or near a commercial shipping lane?

39. When must running lights (navigation lights) be displayed?

40. What is a masthead light?

41. What lights must a power-driven vessel display while underway at night?

42. What light(s) must a boat less than 50 m display when at anchor at night?
   a.) All-round light
   b.) Side lights
   c.) Side lights and stern light
   d.) Side lights, stern light, and masthead light

43. What lights are displayed at night by a fishing vessel towing a trawl?
44. What is the maximum horsepower of engine that a person between 12 and 16 years of age may operate while unaccompanied by an adult?
   a.) 10  
   b.) 20  
   c.) 30  
   d.) 40  

45. To indicate it is a power-driven vessel, at night a motorboat 12m in length or less can display a stern light, sidelights, and a masthead light. What is an alternative light arrangement that will indicate that the craft is power-driven?  

46. What type of pleasure craft do NOT have to carry pyrotechnic distress signals?  

47. What types of watercraft do NOT have to carry visual signals (flares or a watertight flashlight)?  

48. How can one tell what is the maximum size of outboard motor that can be installed on a boat?  

49. What is the minimum age required for a person to operate a PWC?
   a.) Local legal drinking age  
   b.) Fourteen years old  
   c.) Sixteen years old  
   d.) Local legal voting age  

50. When must a powered vessel use a muffler?  

51. You are not responsible for obeying a regulation if you do not know that it even existed:  
   True? Or False?  

52. Under which statue is it an offence to operate a vessel while disqualified or legally prohibited from doing so.  

53. What actions must you take if you are involved in an accident with another vessel or if you happen upon the scene of a collision?  

54. Under Section 1007 of the Small Vessel Regulations, what are some examples of careless behaviour?  

55. Not all restrictions on boating activities are posted on control buoys and command signs. Give an example of a boating restriction that is often not posted.  

56. What publications does the Canadian Hydrographic Service issue to pleasure craft operators to aid them in navigation?
57. Do all operators have to carry marine charts? How does one keep them up to date?

58. What publication provides predictions for the times of tides?

59. Under what conditions can you refuse to render aid to someone in danger at sea?
   a.) If a storm is underway
   b.) If you have to risk your life or the lives of your passengers
   c.) If rescuing someone will overload your boat
   d.) If it takes more than 10 minutes to reach them

60. Mooring your pleasure craft to an aid to navigation such as a navigation buoy violates which statute?
   a.) The Private Buoys Regulations
   b.) The Small Vessel Regulations
   c.) The Criminal Code of Canada
   d.) The Vessel Operation Restriction Regulations

61. Are there any special circumstances under which it is permissible to moor your pleasure craft to a navigation buoy?

62. PWC operators do not need a spotter when towing people:
   True? or False?

63. How can one determine if a vessel is unseaworthy?

64. What is so wrong about operating an unseaworthy vessel?

65. What enforcement bodies enforce boating rules in Canada?

66. Enforcement officers need permission to board your boat:
   True? or False?

67. What does a blue flashing light on a vessel usually signify?

68. What organizations approve PFDs and lifejackets for use in Canada?

69. What is a crucial requirement of all manual bailing pumps?

70. What is the correct procedure for disposing of out-of-date (expired) flares?

71. How do you know when it is time to replace a PFD (personal flotation device or lifejacket)?

72. While towing a vessel that sinks, what can you do to prevent your vessel from being dragged down with the tow and sinking as well?
73. On what page of a marine chart can one find definitions for symbols, abbreviations, acronyms, and terms that appear on the charts.

74. What action should the operator of a pleasure craft take when on a crossing course with a ferry or a vessel engaged in towing.

75. What is the minimum size of vessel allowed in a shipping channel or inshore traffic zone?

76. When operating a small craft in or near a shipping channel, what can one do to improve one’s visibility?

77. What must be carried by the operator of a vessel under oars or paddles (rowboats, canoes, and kayaks,) and without a power supply to operate navigation lights, to signal their presence to other vessels when travelling after dark?

78. You are operating a powered craft and you are on a crossing course with another powered craft. By interpreting the Collision Regulations, you have determined that you are the Stand-On Vessel (you have the right of way) but the other vessel is not altering course or speed; what do you do?

79. Why is it a good idea to have a magnetic compass on board a pleasure craft?

80. What is an approved flotation device?

81. How many approved flotation devices (PFDs or lifejackets) is an operator required to have onboard at all times when underway?

82. What is the minimum acceptable length of buoyant heaving line for all types of pleasure craft?

83. What is a sound signalling device? What is a sound signalling appliance?

84. What types of pleasure craft are required to carry a sound signalling device or sound signalling appliance?

85. How does one use sound signals to indicate that one is altering course to starboard? Or that one is altering course to port?

86. What is the proper way to install a passive radar reflector on a pleasure craft?

87. You are the operator of a small pleasure craft (under 6m in length) and find yourself on a crossing course with a very large vessel. The larger vessel is crossing from your port sector, thus you technically have the right of way. Will you exercise that right?
88. What should you be alert for when operating near a tugboat engaged in towing?

89. What light configuration must a tugboat display to indicate towing is underway?

90. What is indicated by this light configuration?

91. What is indicated by this light configuration?

92. How should you as the operator of a pleasure craft react to a vessel that is towing at night?

93. What is indicated by a flashing blue-coloured light?

94. What colour is a port sidelight?

95. What must you do if you are involved in a collision with another vessel?

96. What lights must be displayed by a vessel under 50 m in length while at anchor at night between sunset and sunrise?

97. What are the primary conditions that must be met to allow wearing an inflatable PFD?
ANSWERS

1. d.) all of the above. The maximum load indicated on the Compliance Notice (also referred to as the “recommended gross load capacity”) includes the weight of all passengers, the motor, fuel, and all cargo on board.

2. All required safety equipment onboard must be in good working order and maintained regularly or replaced according to manufacturer instructions and recommendations so that it will function correctly when needed.

3. The Vessel Operation Restriction Regulations require that each craft (regardless of the type of craft) have on board a Canadian-approved personal flotation device or lifejacket of the appropriate size for each individual on board.

4. An approved PFD or lifejacket is one that bears a label, stamp, or tag indicating that it has been approved. To comply with the standards, you must ensure that the label on your flotation device indicates that it has been approved by one of the following agencies:
   - Transport Canada; or
   - Fisheries and Oceans Canada; or the
   - Canadian Coast Guard.

5. A PFD or lifejacket must be replaced when it is no longer approved. The approved status of a PFD or lifejacket lapses if the flotation device has been damaged, altered, or repaired. Note: Repairing a PFD or lifejacket does not restore it to its approved status.

6. d.) Length of the vessel.

7. d.)

8. All vessels.

9. All vessels up to 24 m (79 ft) in length are required to have a buoyant heaving line of at least 15 metres (49 ft - 3 in) in length with a float attached at one end. Vessels that are greater than 24 metres in length are required to carry a buoyant heaving line of at least 30 metres (98 ft – 6 in) in length. It is highly recommended that your line have attached to it an object made of a soft material such as foam rubber to assist in throwing accuracy. It is also recommended to practice throwing your heaving line to develop accuracy in the event of an emergency.

10. A re-boarding device allows a person to get themselves out of the water and back on board a boat. A re-boarding device is required if the vertical height that must be climbed to re-board the pleasure craft from the water (freeboard) is greater than 0.5 m (1.6 ft).
11. The prime requirement of a re-boarding device is that it allows a person to get themselves back on board the boat from the water. Thus, a re-boarding device usually takes the form of a ladder. Pleasure craft equipped with transom ladders or swim platforms already meet this requirement. Note: The re-boarding device cannot be part of the vessel's propulsion unit. Further, the device qualifies under the regulations only if it is appropriate to the craft on which it is being used; i.e.: it must readily assist someone to gain access to the pleasure craft from the water.

12. Passive radar reflector is designed to make a vessel more "visible" to radar. Vessels less than 20 m (65.6 ft) in length or constructed primarily of non-metallic materials can be difficult to see on radar and must, therefore, be equipped with a passive radar reflector mounted above the superstructure, not less than 4 m (13.1 ft) above the water. The reflector must be able to maintain its performance under the range of foreseeable environmental conditions.

13. Flares are approved for four years from their date of manufacture.

14. The most common feature of all pyrotechnic distress devices (distress flares) is that they are approved for four (4) years from their date of manufacture.

15. b.) Infants under 9 Kg. (20 lbs.) and any person whose chest size exceeds 140cm. (55 in.).

16. c.) Clean the item with a mild soapy solution; do not use any kind of solvent.

17. c.) Lifejackets are designed to turn an unconscious person right side up in the water. A PFD simply has to keep a conscious person's chin out of the water.

18. b.) SOLAS lifejackets are approved for all vessels

19. In Canada, any pleasure craft that is propelled (or designed to be propelled) by a motor is required by Transport Canada to carry a Compliance Notice, which is a label, tag, or plate permanently affixed to the hull of the vessel, usually at the back of the vessel, in a location where it can be read from inside the vessel. A compliance notice displays the vessel's recommended gross load capacity, which includes:

- The maximum load that the vessel can carry;
- The maximum number of adult-sized people that the vessel can carry; and
- (If the vessel is designed to be fitted with an outboard motor): The recommended safe limit of engine power recommended for the hull.

20. d.) For pleasure craft less than 6 m (20 ft) in length, a Compliance Notice must be affixed displaying the vessel's recommended gross load capacity, which includes:

- The maximum load that the vessel can carry;
- The maximum number of adult-sized people that the vessel can carry; and
- (If the vessel is designed to be fitted with an outboard motor): The recommended safe limit of engine power recommended for the hull.
The operator of a pleasure craft cannot exceed any limit indicated on the Compliance Notice. The maximum load indicated on the Compliance Notice (also referred to as the “recommended gross load capacity”) includes the weight of all passengers, the motor, fuel, and all cargo on board.

21. d.)

22. c.) You must be wearing an inflatable PFD for it to be approved on any open boat.

23. Inflatable PFDs are not approved for use on PWCs or for use in any white water activity such as kayaking or rafting. In addition, inflatable PFDs are not suitable for weak swimmers.

24. Not all pleasure craft are required to carry a hand bailer or manual water pump but, in general, most pleasure craft are required to have at least one hand bailer or manual pump on board. Some craft are exempt from this rule. For instance, a bailer or manual water pump is not required for multi-hull vessels that have subdivided, multiple-sealed hull construction (common example: pontoon boat), or on sailboats fitted with a recess-type cockpit that cannot contain a sufficient quantity of water to capsize the boat, or on a sit-on-top kayak.

25. The primary requirement of a manual water pump is that the intake of the pump must be able to reach the bilge and the discharge hose must be long enough to discharge water over the side of your boat.

26. The number and types of flares required are based on a boat’s length (see Table 2-1) and area of operation.

27. Type: The letters (A, B, C, or D) on the label of a fire extinguisher identify the types of fire that the device will extinguish:
   A - Class A means that the extinguisher is designed to extinguish fires of combustible solid materials (wood, paper, etc.). Thus, a bucket of sand or water qualifies as a Class A fire extinguisher.
   B - Class B means that the extinguisher is designed for fires of burning combustible liquids (gas, oil, etc.).
   C - Class C means that the extinguisher is designed to extinguish electrical fires.
   D - Class D means the extinguisher is for fighting fires of burning metal [when ignited, a typical magnesium-fuelled flare (magnesium is a metal) represents a Class D fire].

   Size: The number before the letters on the label of a fire extinguisher rates the extinguisher’s size (a 10BC extinguisher puts out a bigger fire than a 5BC extinguisher). Longer vessels are required to carry bigger fire extinguishers.

28. Any motorized vessel must have on board a type BC fire extinguisher. The size of the type BC extinguisher depends on the length of the vessel. All pleasure craft up to 6 m in length must have at least one 5BC fire extinguisher on board. And all craft greater than 6 m in length must be equipped with a motor and at least two fire extinguishers. If a craft is equipped with an inboard motor or a fuel burning appliance, then the following requirements apply:
- Up to 6 m - needs one 5BC if equipped with an inboard motor, a fixed fuel tank or a fuel-burning appliance
- 6 to 9 m - needs one 5 BC if equipped with a motor plus one 5BC if equipped with a fuel-burning appliance
- 9 to 12 m - needs one 10 BC if equipped with a motor plus one 10BC if equipped with a fuel-burning appliance
- 12m and above - needs one 10 BC if equipped with a motor plus one 10BC at each access to a fuel burning appliance, at entrance to any accommodation space and, at entrance to the machinery space.

29. Any motorized vessel must have on board a type BC fire extinguisher. The size of the type BC extinguisher depends on the length of the vessel. The number of extinguishers to be carried on board depends on the length of the craft and the types of fuel burning appliances on board.

30. Everyone on board the vessel should know where the fire extinguishers are located and how to use them. Fire extinguishers should always be stored in a convenient and accessible location.

31. Every month, every fire extinguisher on board should be shaken vigorously in the upside down position to prevent the chemical agent in the extinguisher from clumping.

32. None, you risk no fines when you request a Pleasure Craft Courtesy Check. Transport Canada offers free courtesy checks through the Canadian Coast Guard Auxiliary, the Canadian Power and Sail Squadrons, and other organisations. If you agree to a check, a trained volunteer will check your boat for required safety equipment, identify any problems, and discuss general boating safety issues. There are never any penalties involved in courtesy checks. Thus, they are a great opportunity to receive expert advice.

33. If you are the give-way vessel, then you must alter your course and speed to take early and substantial action to stay well clear of the other vessel as well as avoid passing in front of the other craft. Take action early and substantially to make your intentions clear

34. Give a one-blast sound signal and then alter course to starboard (to the right).

35. Boat A is the give-way vessel and must alter course and speed early, obviously, and substantially so as to pass to the stern of Boat B.

36. d.)

37. c.)

38. When operating a small craft in or near a shipping lane, navigate in groups of other small boats, when possible, to make yourself more visible to larger vessels.
39. Whenever underway between sunset and sunrise.

40. A masthead light is used to indicate that a craft is power-driven. It is a white light that is mounted higher than the sidelights, faces forward, and shines through an arc of 225°.

41. Sidelights, stern light, and a masthead light (or sidelights and an all-round light).

42. a.) All-round light

43. A vessel when engaged in trawling, shall exhibit: two all-round lights in a vertical line, the upper being green and the lower white, both lights must be visible for 360 degrees; a masthead light abaft of and higher than the all-round green light (a vessel of less than 50 metres in length shall not be obliged to exhibit such a light but may do so); and, when making way through the water, in addition to the lights prescribed in this paragraph, sidelights and a stern light.

44. d.) 40 hp. (30 kW).

45. For a craft 12m or less in length, one can display a stern light, sidelights, and masthead light. Alternatively, one can display sidelights and an all-round light.

46. Pyrotechnic distress signals or flares are not required to be carried on board a pleasure craft that is operating in a river, canal, or lake in which it can at no time be more than one (1) nautical mile from shore, or the vessel has no sleeping arrangements and is engaged in an official competition or in final preparation for an official competition.

47. Visual signals (flares or watertight flashlights) are not required on board a pleasure craft that is 1) not more than 6 m (19.7 ft) in length and 2) not fitted with a motor. Otherwise the following requirements apply:

- If a powered pleasure craft is not more the 6 metres in length, a watertight flashlight OR three pyrotechnic distress signals other than smoke signals is required.
- If a powered pleasure craft is 6 - 9 m (19.7 - 29.5 ft) in length, then a watertight flashlight AND six pyrotechnic distress signals other than smoke signals are required.
- If a powered pleasure craft is more than 9 metres in length, then a watertight flashlight AND twelve pyrotechnic distress signals (not more than six of which are smoke signals) are required.
48. All pleasure craft less than 6 m (20 ft) in length must carry a **Compliance Notice** (usually affixed at the stern) displaying the vessel’s Recommended Gross Load Capacity, which includes:

- The maximum load that the vessel can carry;
- The maximum number of adult-sized people that the vessel can carry; and
- (If the vessel is designed to be fitted with an outboard motor): The recommended safe limit of engine power recommended for the hull.

49. c.) Sixteen years of age.

50. On all Canadian waters any motorized craft equipped with a motor other than a stock (unmodified) outboard engine must have a muffler and use it while operating within five (5) nautical miles (9.26 km) of shore. This does not apply to you if your vessel was built before January 1, 1960, or if you are in an official competition or in formal training or final preparation for an official competition.

51. False - Under the Vessel Operation Restriction Regulations, operators are responsible for knowing when and where restrictions on boating activities exist; i.e.: claiming ignorance of any local restriction on boating activities is not a valid reason for failure to obey local restrictions.

52. The **Criminal Code of Canada**

53. Render what assistance you can without seriously endangering yourself (i.e.: make sure your vessel is secure and then render aid to the other vessel) and exchange names, addresses, telephone numbers, and insurance information with the operator of the other vessel.

54. Examples of behaviors which should be considered careless under Section 1007 of the Small Vessel Regulations include (but are not limited to):

- Operating vessel at high engine regime in circular or crisscross patterns for extended periods of time in the same location;
- Jumping waves or the wake of another vessel unreasonably close to that vessel or so as to cause engine RPM to peak and make unusual or excessive noise;
- Weaving through congested traffic at more than slow speed;
- Swerving at the last possible moment to avoid collision (playing chicken);
- Operating a vessel at a speed higher than is necessary to maintain steerage way when near swimmers, or non-powered vessels.

55. Not all boating restrictions are posted. For instance, within 30 metres of the shoreline, a 10 km/h speed limit is in effect on all waters within British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, and Nova Scotia as well as on selected lakes and rivers in some other provinces, whether or not speed limit signs are posted.
56. The *Canadian Hydrographic Service* publishes Canadian marine charts. Marine charts are graphic representations depicting water areas, including depths, underwater hazards, traffic routes, aids to navigation, and adjacent coastal areas. Chart # 1 of a set of charts will usually contain definitions of symbols, abbreviations, acronyms, and terms that appear on the other pages of the charts.

57. The *Charts and Nautical Publications Regulations* require operators of all vessels to have on board the latest edition of the largest scale chart, for each area that they navigate and to keep these publications up to date. One can keep charts and nautical publications up to date by referring periodically to the Canadian Coast Gaur’s monthly, Notices to Mariners, which are available at this web site ([http://www.notmar.gc.ca/](http://www.notmar.gc.ca/)).

58. The *Canadian Tide and Current Tables* provide daily predictions of the times of slack water, the times and rates of maximum flood and ebb streams, and the direction of water flow.

59. b.) Whenever rendering aid poses a serious and real danger to your life or the lives of your passengers

60. c.) The *Criminal Code of Canada*

61. No. It is forbidden at all times.

62. False - A PWC (a Seadoo or a jet ski) is a pleasure craft under the regulations. And a pleasure craft operator must have a responsible person as spotter to keep watch on any person being towed. In other words, a rear-view mirror does not count. In addition to the driver, there must be a human being on board, facing aft, acting as spotter, and reporting to the driver.

63. A vessel is considered seaworthy if the hull is undamaged and appropriate for the type of sea condition, the engine is in conformance to the hull compliance notice, the vessel is not overloaded, and all equipment is in good working order.

64. It is a criminal offence (i.e.: it is a violation of the Criminal Code of Canada) to knowingly operate a vessel that is unseaworthy (thus, placing your life and the lives of others at risk).

65. The laws that apply to boaters are enforced by the Royal Canadian Mounted Police (RCMP), provincial police forces, municipal police forces, and other designated enforcement officers.

66. False - You must comply with the demands of any enforcement officer. Enforcement officers are tasked with verifying that you are complying with the rules and, thus they are empowered to (among other things):

- Demand that you stop;
- Go onboard and inspect your vessel;
- Check for all required safety equipment;
- Verify that you are carrying photo identification;
- Verify that you are carrying proof of competency;

67. Any government vessel or any vessel that is owned or operated by a harbour, river, county or municipal police force may exhibit as an identification signal a blue flashing light when the vessel is providing assistance or is engaged in law enforcement duties.

68. An approved PFD or lifejacket is one that bears a label, stamp, or tag indicating that it has been approved by:
- Transport Canada; or
- Fisheries and Oceans Canada; or the
- Canadian Coast Guard

69. All bilges must be accessible by a manual pump, which is used to pump bilge water over the side. In other words, the pump body must be long enough that the base of the pump (the intake) will reach to the bottom of the bilge so that water can be pumped out.

70. Approved pyrotechnic devices are valid for only 4 years from their date of manufacture (date of manufacture is stamped on each flare). Consult your local law enforcement agency, the Canadian Coast Guard, Transport Canada, or a local fire department for advice on disposing of out-of-date flares. In many municipalities, flares can be disposed of on special days when toxic wastes are picked up with recycling; always clearly label the bag or containing the flares as “explosives”.

71. The approved status of a PFD or lifejacket lapses if the flotation device has been damaged, altered, or repaired. Note: Repairing a PFD or lifejacket does not restore it to its approved status.

72. An axe can be used to cut a tow line in an emergency. If you are towing a vessel that is sinking, it can sink yours as well if it remains attached via a tow line.

73. Chart # 1 of a set of charts will usually contain definitions of symbols, abbreviations, acronyms, and terms that appear on the other pages of the charts.

74. Vessels engaged in towing have a cable below the surface between the towing vessel and the vessel being towed. Never cross between a towing vessel and the vessel being towed; otherwise you may strike the cable, be disabled, and then you would be run down by the vessel being towed. Similarly, ferries are often connected to a subsurface cable. Thus, do not cross courses with a ferry, stay well clear.

75. Craft of all sizes may cross shipping channels and inshore traffic zones. As a general rule, smaller vessels and vessels engaged in fishing should steer clear of commercial shipping lanes and inshore traffic zones and must use extreme caution when crossing a shipping channel or inshore traffic zone.
76. Navigate in groups of other small boats, when possible, to make yourself more visible to larger vessels.

77. Vessels under oars or paddles (rowboats, canoes, and kayaks,) without a power supply to operate navigation lights must carry a flashlight or lantern showing a white light to signal their presence to other vessels when travelling after dark.

78. If you are operating a powered craft and you are on a crossing course with another powered craft and by interpreting the Collision Regulations, you have determined that you are the Stand-On Vessel (you have the right of way) but the other vessel is not altering course or speed; then you must alter course and speed in order to avoid a collision.

79. A magnetic compass can be used to determine direction as well as the course that one is travelling. Thus, a magnetic compass is very useful when one is caught in fog since it can re-orient the boater and allow them to determine the direction to take to return to shore.

80. An approved flotation device is one that when purchased bore a label stamp or tag certifying that it has been approved by one of the following agencies:

- Transport Canada; or
- Fisheries and Oceans Canada; or the
- Canadian Coast Guard.

Visitors to Canada may use flotation devices that conform to the laws of their home country. When purchasing a flotation device, choose one that is appropriate for your size, weight, and activities in which you are engaged.

81. The Vessel Operation Restriction Regulations require that each craft (regardless of the type of craft) have on board a Canadian-approved personal flotation device or lifejacket of the appropriate size for each individual on board [except for infants less than 9 kg (20 lbs) in weight or a person with a chest size of 140 cm (55 in) or larger]. Note: There are no approved lifejackets or PFDs for infants that are less than 9 Kg (20 lb.) in weight.

82. The minimum acceptable length of buoyant heaving line for types of pleasure craft is 15 m.

83. Sound signalling device: A sound signalling device is portable and can be carried onboard. All vessels under 12 m (39.4 ft) in length and not equipped with a sound signalling appliance must carry some type of sound signalling device (such as a pea-less whistle or a compressed gas horn). Sound signalling appliance: A sound signalling appliance is permanently affixed to a pleasure craft. Vessels that are 12 metres or more in length must carry a sound signalling appliance (such as a bell and or air horn). What is a sound signalling appliance?
84. All types of pleasure craft are required to carry a sound signalling device. Longer vessels are required to carry a sound signalling device as well as two sound signalling appliances.

85. Pursuant to Rule 34 of the Collision Regulations, on inland waterways, sound signals are also used to communicate when you are manoeuvring in a particular direction:

- **One short blast** – One short blast means: “I am altering course to starboard”*
- **Two short blasts** – Two short blasts means: “I am altering course to port”
- **Three short blasts** – Three short blasts means: “I am manoeuvring using astern propulsion” (i.e.: I am moving backwards);
- **Four short blasts** – Four short blasts means: “I am unable to manoeuvre”.
- **Five short blasts** – One employs five blasts on a horn when one vessel fails to understand the intentions of another.

86. Vessels less than 20 m (65.6 ft) in length or constructed primarily of non-metallic materials can be difficult to see on radar and must, therefore, be equipped with a passive radar reflector mounted above the superstructure, not less than 4 m (13.1 ft) above the water.

87. No. Keep clear of large vessels.

88. First of all, a tugboat engaged in towing will not be manoeuvrable and will, therefore, have the right of way. In addition, when giving way (altering course and speed to pass well astern the other vessel) make sure that you pass behind anything being towed as well (i.e.: never pass between a tug and its tow). Thus, when operating at night, it is crucial to know the light configuration that indicates that a tugboat is towing.

89. Vessel engaged in fishing (no trawl)

90. Vessel engaged in fishing (with trawl).

91. A tugboat engaged in towing should display these lights:

92. Whenever encountering a vessel towing at night, never pass behind the towing vessel.
93. Any government vessel or any vessel that is owned or operated by a harbour, river, county or municipal police force may exhibit as an identification signal a blue-coloured flashing light when the vessel is providing assistance or is engaged in law enforcement duties.

94. A port sidelight is always red-coloured. To remember this, just remember that port (the drink) is a kind of red wine. A port sidelight is always installed on the port side of the bow. A starboard sidelight is always green-coloured and installed on the starboard side of the bow.

95. If you are involved in a collision with another vessel, the first thing that you must do is make certain that all persons are accounted for, check for injuries, and respond to those injuries. In addition, under Section 252 of the Criminal Code, if you are involved in an accident with another vessel you must render assistance to that vessel and if you happen upon the scene of a collision, you must stop and offer assistance. In addition, operators of vessels involved in an accident must exchange their names and addresses.

96. If a vessel under 50 m in length is at anchor, it must display an all-round light in the forepart, which is a white light that displays an unbroken arc of light through a horizontal angle of 360°.

97. Inflatable PFDs are not approved for any person who is less than 16 years of age or who weighs less than 36.3 kg (80 lbs). Inflatable PFDs are not approved for use on PWCs or for use in any white water activity such as kayaking or rafting. In addition, inflatable PFDs are not suitable for weak swimmers. You must be wearing an inflatable PFD for it to be approved on any open boat. If the boat is not open (i.e.: it has a cabin), then you only need to wear it when you are not in the cabin (i.e.: you must wear it when on deck or in the cockpit).