

## **Editorial Messages – Safe Boating Awareness Week**

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# SAFETY EQUIPMENT REQUIREMENTS



Canadian Safe Boating Council  
Conseil canadien de la sécurité nautique

## Introduction

Safe, responsible operation is a key ingredient for enjoyable boating. The right safety equipment provides peace of mind, and if something goes wrong, it may save a life. There may be additional items you will want to take depending on your vessel, type of activities, and environment. Go prepared. Make sure your equipment is easily accessible and can be operated by everyone on board. Remember, ensuring that all equipment is in good working order isn't just common sense, it's the law.

## Who Needs to Comply?

Safety equipment requirements apply to all pleasure craft.

## Examples of Pleasure Craft

- Powerboats
- Personal watercraft (PWC)
- Canoes and kayaks
- Sailboats or sailboards
- Airboats
- Hovercraft (Air cushion vehicles, ACV)

These minimum safety equipment requirements do not apply to beach and pool toys that measure less than 2 m in length and that are not designed to be fitted with a motor. Note that operating an outboard motor-driven surfboard in any Canadian waters is strictly prohibited.

If you are renting a boat and will be operating it for recreational purposes, these carriage requirements also apply to you. If you are using your vessel for commercial purposes or are carrying passengers for remuneration, you should consult Transport Canada to check which regulations apply.

## Equipment Requirements

The Small Vessel Regulations set out the minimum safety equipment required on board a recreational boat according to vessel length. In some examples, the minimum safety equipment is displayed for the vessel type to assist the reader. However, the minimum equipment should only be referred to as a guide, and a prudent boater will add to the list depending on the type of boating being done and where they are boating.

To determine the length of your vessel, refer to your manufacturer's product information or measure it yourself - from the forward end of the foremost outside surface of the hull shell to the after end of the aftermost outside surface of the hull shell. If you plan to be out for more than a few hours, although not required by law, there are a number of items that you should take with you:

- spare clothing in a watertight bag (weather can change dramatically in just a few hours, and not having the proper clothing for the conditions can lead to conditions that can be serious threats to your health, such as heatstroke and hypothermia).

- drinking water and high-energy snacks (water is the most important element here as lack of it can lead to fatigue and dehydration in a fairly short time).

*TIP: Would you recognize the signs and symptoms of hypothermia, heat exhaustion, an allergic reaction to insect venom or food items? Do you know how to stem bleeding, perform rescue breathing, and treat shock? – If you answered no to any of these questions, take a first aid course as soon as possible. Knowing how to provide this immediate, temporary assistance can make the difference between permanent injury and full recovery, or even life and death. Know before you go!*

### **Tool Kits and Spare Parts**

You may need to make repairs while out on the water. Take along a tool kit, spare parts (for example, fuses, bulbs, a spare propeller, nuts and bolts, penetrating oil to free up stuck fasteners, duct tape, spark plugs), and tools and materials to temporarily stop hull leaks.

Now that you have the tools available, do you know what to do with them? Take along the owner's manual and any other guidebook you might need.

### **First Aid Kit**

When boating, you are likely to be some distance from medical assistance, and such assistance may be difficult to find when you are in unfamiliar surroundings. Take a first aid kit along with you. Store it in a dry place and replace used and outdated contents regularly.

### **An Example:**

#### **Minimum Required Safety Equipment for a Powered Pleasure Craft Not Over 6 Metres in Length**

#### **Personal Protection Equipment**

1. One Canadian-approved personal flotation device or lifejacket of appropriate size for each person on board
2. One buoyant heaving line of not less than 15 m in length

#### **Boat Safety Equipment**

3. One manual propelling device OR an anchor with not less than 15 m of cable, rope, or chain in any combination.
4. One Class 5BC fire extinguisher, if the pleasure craft is equipped with an inboard engine, a fixed fuel tank of any size, or a fuel-burning cooking, heating, or refrigerating appliance.
5. One bailer or one manual water pump fitted with or accompanied by sufficient hose to enable a person using the pump to pump water from the bilge of the vessel over the side of the vessel.

*A bailer or manual water pump is not required for any multi-hull vessel that has subdivided multiple-sealed hull construction.*

**Distress Equipment**

6. A watertight flashlight or 3 Canadian-approved flares of Type A, B, C, or D, only 1 can be type D.

**Navigation Equipment**

7. A sound-signaling device or a sound-signaling appliance
8. Navigation lights that meet the applicable standards set out in the Collision Regulations if the pleasure craft is operated after sunset and before sunrise or in periods of restricted visibility.

## **INFORMED BOATERS ARE SAFER BOATERS**



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Boating is a great activity, whether you take to the water to paddle, sail, fish, or cruise. Whatever your passion may be, the Canadian Safe Boating Council advises that learning how to boat safely will increase your enjoyment of boating.

As a boater, you are legally responsible for equipping yourself and your boat, operating your vessel safely, and ensuring the safety of your passengers. You are responsible for knowing the laws and regulations that govern the safe operation of vessels on Canadian waterways. One of the best ways to learn the basics of safe boating is to take a course and write an accredited test.

## KEEPING A WEATHER EYE OUT



As a boater, you have fond memories of warm sunny days on the water, enjoying the time and activity with family and friends. Fair skies and fair winds are the desire of every boater, but we all know that weather changes and water conditions never remain constant.

Boaters must assess the weather and make a decision before heading out on the water and know how to interpret weather changes while on the water. Sudden weather changes can occur without warning in many parts of the country. Sudden changes in wind can be particularly dangerous since they can cause a rapid buildup of high waves. Many small pleasure craft are not designed to handle any great amount of wind and waves and can be easily swamped or capsized. So, when the forecast is poor, plan to stay ashore. If you are already on the water and the weather appears to be changing and degrading, head to shore as directly and as quickly as is safe.

There are a number of ways that you can obtain local forecasts for your local waters. First, start by making personal observations of the sky and wind conditions. These observations can be backed up with local forecasts from your newspaper, radio, or television news. If you have access to cable or satellite television, specialty weather channels provide detailed forecasts. In many areas across the country, media outlets provide special marine weather forecasts for boaters in their markets. The Internet is also an excellent source of detailed weather forecasts and provides you with weather maps and satellite and radar images. Two of the most popular websites are [www.weather.gc.ca](http://www.weather.gc.ca) (Environment Canada) and [www.theweathernetwork.com](http://www.theweathernetwork.com).

One of the best sources of marine weather, whether on shore or aboard, is your marine VHF radio. Current weather conditions, forecasts, and warnings are broadcast on channels 21B, 25B, and 83B on the Atlantic Coast and Great Lakes. On the West Coast, weather forecasts are broadcast on channel 21B and WX1, and 2, WX3, and 4 are US government weather service. Environment Canada provides their Weather Radio service in Vancouver, Toronto, and Montreal. While on the water, it is critical to “keep a weather eye” out. Frequently monitor cloud patterns and sky conditions. If the sky looks dark, the cloud conditions are changing rapidly, or there is a shift in the wind, you can expect a change in the weather. The best idea is to stay sensitive to the little changes to make sure that you react in time before big changes hit. Summer thunderstorms can strike quickly and quite unexpectedly. Winds and waves associated with thunderstorms can increase suddenly and drastically, creating severe local wind and wave conditions. By being vigilant and listening for static on an AM radio band or observing birds heading for shelter, you may be forewarned of a severe weather change.

When changing and deteriorating weather occurs while out on the water, you should take immediate action and head for shore and safety. Having a marine chart on board will allow you to find a bay, cove, or other sheltered location to weather out a storm or wind and wave conditions beyond your boat's capability.

Should you find yourself caught in bad weather out on the water, if you don't have them on already, ensure that everyone dons a PFD, slow down, and proceed with caution. Approach the waves bow-on at a 45-degree angle and keep your passengers and load low in the boat to avoid capsizing.

***The key to weather is checking it before you head out and keeping an eye on it while on the water. If you feel that there is any risk, don't go. It's every boater's responsibility to "keep a weather eye" and to Boat Safe – Return Safe. Enjoy your time on the water and "have many happy returns."***

## **Environment Canada**

Uses some specific specialized terminology in marine weather forecasts to provide boaters with information on the expected conditions:

**LIGHT WINDS** are less than 15 knots (28 km/h) with wave heights up to 1.5 metres.

**MODERATE WINDS** are in the range of 15 to 19 knots (28 to 35 km/h) with waves of 1 to 3 metres.

**STRONG WINDS** or small craft warnings are used to report winds of 20 to 33 knots (37 to 61 km/h) with wave heights of 3 to 6 metres.

**GALE WARNINGS** are issued when sustained wind speeds are 34 to 47 knots (63 to 87 km/h) and may have waves reaching 6 to 9 metres in height.

**STORM WARNINGS** have continuous wind speeds of 48 to 63 knots (89 to 117 km/h) and wave

## RED, RIGHT WHAT?



“Red, Right Returning.” Do you know what this simple memory-triggering device means? You should, because understanding the Canadian Aids to Navigation and how to identify them on the water is just one of the essential skills for safe boating. ‘Red Right Returning’ refers to keeping the starboard or red navigational aid on the starboard or right-hand side of your vessel when returning to a harbour or traveling in an upstream direction.

Learning the “rules of the road” for boating will teach you what to do when you encounter another vessel in daylight or at night. You will gain an understanding of the navigation aids and the meaning of buoys, day beacons, and other aids, which will help you avoid hazards in and on the water.

As a boater, you are legally responsible for operating your boat safely, and that means knowing the rules of the water. To do this means you must know and comply with the Canadian laws and regulations that apply to all vessels on Canada’s waterways. These laws, regulations, and guidelines are contained in the Collision Regulations, the Canada Shipping Act, the Boating Restriction Regulations, and the Charts and Nautical Publications Regulations. All of these regulations and acts have been implemented to ensure that all of us enjoy ourselves on the water, in a safe and understandable environment.

The Collision Regulations set out the rules for safe navigation and preventing collisions on the high seas and inland waterways. The regulations include the International Regulations and Canadian modifications, which set out the rules for speed, navigation, right-of-way, and maintaining a watch. Will you know which vessel is the give-way vessel when two boats approach? Knowing which boat is the stand-on vessel, and which vessel must give way in all situations on the water, is not only courteous but safe. There are no lines on the water establishing lanes and traffic flows, so it is your responsibility to know what to do to navigate safely.

The Canada Shipping Act, which incorporates international conventions, establishes a set of rules and regulations that govern our behavior on the waters. One of the most cited regulations in the act calls for the operators of every pleasure craft to lend assistance to every person who is in danger or peril on the water if they can do so without serious danger to their own vessel or persons on board.

Specific operating restrictions are addressed by the Boating Restriction Regulations. These regulations impose speed limits, shoreline speed zones, horsepower limits, and other restrictions on specific Canadian waterways.

Charts and Nautical Publications Regulations require the operators of all vessels to carry the most current charts, documents, and publications for the area that they are navigating. While exemptions exist under certain conditions, boating without the marine chart for your body of water means you could end up more than just lost, you could find yourself and your vessel in distress due to collision with an underwater hazard. Charts



are more than just road maps. They provide you with valuable information about the waters, navigational aids, and hazards, and should be considered essential on your boat.

So where do you go for the relevant information? For general boating safety information, visit the Office of Boating Safety online at <https://tc.canada.ca/en/marine-transportation/marine-safety/boating-safety>. To obtain information on nautical charts, current tables, Sailing Directions, The Canadian Aids to Navigation System, Radio Aids to Marine Navigation, and a List of Lights, Buoys, and Fog Signals, visit [www.charts.gc.ca](http://www.charts.gc.ca) or call the Canadian Hydrographic Service at (613) 998-4931. It's every boater's responsibility to know the "rules of the road" and to Boat Safe – Return Safe. Enjoy your time on the water and "have many happy returns."

Safe boating is everybody's responsibility, and the best way to become a safe and confident boater is to take an accredited course. To learn more about the courses offered in Canada, where you can take them, and how to get your Pleasure Craft Operators Card, visit <https://tc.canada.ca/en/marine-transportation/marine-safety/boating-safety> and remember.....Boat Safe – Return Safe. Enjoy your time on the water and "have many happy returns."

## LIFEJACKETS 101



Lifejackets have been saving lives for hundreds of years, with the first recorded history of use by Norwegian mariners who used simple blocks of wood. The forerunner of the modern lifejacket was invented by Captain Ward of England. In 1854, he created a cork vest designed to be worn by lifeboat crews for both weather protection and buoyancy. This early style of lifejacket can be seen in the movie *The Titanic*. It was a useful survival tool, but eventually gave way to those made of Kapok. Kapok was a softer alternative to cork, which was good news to navy mariners who often wore their lifejackets whenever aboard, including even when they were sleeping.

Now, no one is suggesting that you wear your lifejacket when you sleep aboard, but the message that the Canadian Safe Boating Council (CSBC) has been delivering for years; “Boat Safe, Boat Smart – Wear It”, “It’s Your Life....Preserve It” and “When Within Reach Might Not Be Close Enough” are certainly relevant for most other times we are aboard, especially in smaller open boats. The question is, why do we continue to ignore those messages, putting ourselves, our loved ones, and our friends at risk?

Interestingly, CSBC and Smart Risk’s research demonstrates that most of us insist that our children wear their lifejackets. However, the willingness to wear a lifejacket drops from 85 percent for children under 5 to a low of 37 percent by the time they reach their teen years and continues to decline significantly after the teen years. So, what’s the result of all this complacency and unwillingness to wear a lifejacket?

Across Canada, 89 percent of recreational boaters who drown every year were not wearing a lifejacket. Most of these drownings occur in small open power boats, accounting for 60 percent of these preventable deaths. A majority of these victims were males between the ages of 19 and 35, out for a day of fishing. An average of 140 unnecessary drownings occur every year.

Many boaters who drown believe they are good swimmers, so they feel that having a lifejacket on board and within easy reach is good enough. But what good is a lifejacket that is stored under a seat or under the bow going to be when the unexpected happens? Most drownings happen unexpectedly when small boats capsize, or someone falls overboard. The lifejacket that you leave behind is not much use, especially in cold water.

Speaking of cold water, in Canada, many boaters like to extend their boating season as long as they can, when water temperatures, particularly at the beginning and end of the season, can be very chilly. There are also parts of this country where water temperatures remain cold all year round. Hypothermia is a condition most boaters have heard about and can lead to many problems, such as disorientation and rapid incapacitation, but the real shocker is found in the new research on sudden cold water immersion.

Death from sudden cold water immersion happens very, very quickly. Research by Dr. Michael Tipton, a leading expert in cold water immersion, has shown that the “gasp reflex” from sudden immersion has led to more deaths than previously known. The reaction causes a sudden uncontrollable gasp, followed by 1-3 minutes of hyperventilation. The initial gasp can cause you to inhale up to 2 litres of water, causing drowning. This volume of water will cause an individual not wearing a lifejacket to sink and not reappear. If the first gasp of water is not fatal, hyperventilation will lead to the rapid onset of severe hypothermia and death.

So, if the “gasp reflex” doesn’t get you initially, you still face the second effect of cold water immersion, cold incapacitation. In cold water, your extremities will numb quickly, progressing to make it more difficult to swim, and eventually, if you are not wearing a lifejacket, swim failure and drowning is imminent. If you are wearing a lifejacket, the third effect of cold water immersion is hypothermia, and it can occur in water as warm as 20 degrees.

With all that information, the message should be clear. Having your lifejacket on before you end up in the water will greatly increase your chance of survival. So why don’t we? Some of the common reasons for not wearing a lifejacket are: “they’re uncomfortable,” and “they look stupid.” Well, those reasons just don’t fly anymore. Things have changed, and there is a new generation of lifejackets in town. Whether they are specialized lifejackets for specific on-water activities or the new inflatable lifejackets, they are much more comfortable than the old standard ones and certainly put those old objections to rest.

There are many new, improved (and approved by Transport Canada) lifejackets, and all are designed to be lightweight and comfortable. There is a wide range of styles and colours, and all are designed for the type of boating you do and the conditions you face. Whether it be paddling, sailing, fishing, water sports, or riding personal watercraft, there is a lifejacket suited for it.

The most recent face on the waterfront is the inflatables; the most comfortable, lightweight lifejackets you can buy, and are available in vest or pouch styles. Inflatable jackets come standard with manual inflation, but a few models are available with automatic inflation, which instantly inflates the lifejacket when you hit the water. To meet Canadian Small Vessel Regulations, inflatable lifejackets must be worn at all times when aboard and underway and may not be worn by a person under the age of 16 or weighing less than 36.3 kilograms.

When choosing a lifejacket, follow these simple guidelines: Choose one that is suitable for the activity you are involved in and check the label to make sure that it is Canadian-approved and is of the correct size. Finally, make sure it fits snugly.

**If you don't wear it, it won't work.**

## PROOF OF OPERATOR COMPETENCY

Current federal legislation requires operators of pleasure craft fitted with a motor and used for recreational purposes to have proof of competency on board at all times. Similarly, non-residents of Canada, in boats registered outside of Canada, need to be able to provide proof of competency if they remain in Canada longer than 45 consecutive days.



Proof of competency can take any one of 3 forms:

1. Proof of having successfully completed a boating safety course in Canada prior to April 1, 1999.
2. A pleasure craft operator card is issued following the successful completion of a Transport Canada-accredited test.
3. A completed rental boat safety checklist (for power-driven rental boats). This is only good for the rental period.

Non-resident boaters in Canada for greater than 45 consecutive days or are operating a Canadian-registered vessel must be able to provide proof of competency. This may be in the form of an operator card or similar proof of competency issued in the operator's state or country of residence. Such proof of competency must be kept with the operator at all times.

Even though an operator may have proof of competency, they are still subject to the Age and Horsepower restrictions. Age-horsepower restrictions prohibit operators under the age of 16 years from operating craft above the specified horsepower limits. This applies to the operation of pleasure craft fitted with a motor and used for recreational purposes. If an operator is accompanied and directly supervised in the pleasure craft by a person 16 years and older, the age-horsepower restrictions do not apply. These restrictions also prohibit persons under 16 years from operating personal watercraft regardless of whether they are accompanied by an adult.

The table below summarizes how these restrictions apply.

## AGE-HORSEPOWER RESTRICTIONS

<b>How this applies to operators of pleasure craft fitted with a motor and used for recreational purposes</b>	<b>Power restrictions</b>
Under 12 years of age, and not directly supervised**	Can operate a vessel with no more than 10 hp (7.5 KW)
Between 12 years of age and under 16 years of age, and not directly supervised**	Can operate a vessel with no more than 40 hp (30 KW)
Under 16 years of age	Not allowed to operate a PWC***
16 years of age and over	No power restrictions

\* These requirements apply in areas outside the Northwest and Nunavut Territories at this time.

\*\* Directly supervised means: accompanied and directly supervised by a person 16 years of age or older.

\*\*\* Personal Watercraft

## THE OPERATOR CARD IS GOOD FOR LIFE

### How Do I Get A Card?

Boaters can obtain their card after receiving a mark of at least 75% on a Transport Canada-accredited test. Boaters have the option of taking this test without first completing a course. Accredited tests are offered by Coast Guard-accredited course providers.



### How Do I Find An Accredited Course Provider Near Me?

The Office of Boating Safety provides an up-to-date listing of accredited course providers on its website.

Why take a boating safety course?

- To improve the safety of all boaters and the boating environment.
- To get your Pleasure Craft Operator Card as required by the regulation.
- To learn about your responsibility.
- To make your boating experience enjoyable for everyone.

### What Is Covered During A Course?

The course covers a full range of basic boating information, such as:

- minimum safety equipment requirements required on board your boat.
- the Canadian Buoy system.
- how to share waterways.
- a review of all pertinent regulations; and
- how to respond in an emergency situation.

### What Are My Options?

- Take the course in class, by correspondence, or through the internet.
- Purchase a training manual from an accredited training organization, study on your own, and then take the test.
- If you already know the rules, you may wish to challenge the test, although Transport Canada highly recommends taking an accredited course.