# 3 Dangers inherent to the sport

Safety starts with knowledge. Many factors related to the marine environment and the climate of large waters increase the risk of sea kayaking. These factors pose difficulties that kayakers must understand, be able to identify, and above all, learn to foresee in order to avoid accidents. The following are the main guidelines.

### Coastline topography

The form and shape of a coastline influences the facility of launching and landing. Sometimes a coast consists only of inaccessible cliffs, prohibiting any kind of landing. Other times the low tide leaves behind extensive muddy stretches in which it is uncomfortable to wade before launching. Islands, capes, bays, and fjords can also complicate navigation both on the ocean and on large lakes. Having a good map at hand is thus a basic essential.

### The marine environment

- **Cold water:** 8°C is the critical threshold. Swimming in water of a temperature between 8 and 15°C is, though uncomfortable, tolerable. A forced plunge in water below 8°C can provoke hypothermia within minutes, and if below 5°C, can pose a major threat to life.

- **Tides and currents:** though invisible, the current has great impact on kayaking. On the ocean, the current changes direction subsequent to the tides. This can either slow you down and/or cause you to drift far from your itinerary. The amplitude of tides can sometimes rise above 6 metres. Great caution is also to be taken in some regions with tides of one or less metres, as these can cause very dangerous currents. Recreational kayakers can maintain on average a speed to 2 to 3 knots* (3.5 to 5.5 km/h). **Currents between 1 to 4 knots are then regarded as average, while currents above 4 knots are significant.**

- **Wind:** some regions have prevailing and constant winds that can be easily forecasted. Wind has a drift effect similar to the current and can also rapidly decrease its ambient temperature. Sudden windblasts provoke strong, sometimes breaking waves and can cause you to drift very far from the banks. In

* (Knot: unit of speed corresponding to one nautical mile per hour, the equivalent of 1.85 km/h).

its weather forecasts, Environment Canada applies its terminology as follows: **light wind** – below 12 knots (20 km/h); **moderate** – 12 -19 knots (20 to 35 km/h); **strong** - 20-33 knots (35 to 60 km/h). **Small craft warnings** are issued when sustained wind speeds are expected in the range of 20-33 knots. Sea kayaking specialists, however, refer to light winds as being below 15 km/h, to moderate winds as below 25 km/h, and to strong winds as above 25 km/h. Great care is thus to be taken when interpreting weather forecasts.

- **Fetch:** Fetch means the distance without obstacle on which wind can accelerate, favouring waves to build up. The larger this distance, the stronger the wind will be.

### Maritime traffic

- **Cargo ships, fishing vessels and pleasure boats:** traffic can be dense on large, navigable channels and along certain coastlines. Cargo ships in these areas are obliged to adhere to exact routes, leaving them with no room to manoeuvre around you. It is your responsibility to steer out of their way. The crew of these huge ships cannot detect you on their radar, cannot spot you when beyond a distance of two miles (and that in clear weather), and lose sight of you again when you are closer than a half mile to their ship.

- Know your rights and obligations as a pleasure boater and respect the navigational regulations in order to avoid collisions. Make sure that you are well seen and heard. To this effect, the colour of your kayak and your PFD can play an important role. Yellow, orange and red are the colours that are the most visible on water. Signalling devices should always be within hand's reach.

### Communication

Travelling in more inhabited regions means that it will be easier for you to get emergency help and to launch, if necessary, search and rescue procedures. For Québec and the Atlantic Provinces, all zones above the 51st parallel are designated as remote areas, cut off from any resources.

- **The natural environment** in which an excursion takes place should not be taken lightly. Camping conditions, the presence of animals, evenness of terrain, and its remoteness can each trigger or influence minor incidents that could take on catastrophic dimensions.

- Capacity and reliability of communication: verify which medium of communication is most suitable for the region. Remember also that cellular telephones cannot be trusted to function reliably everywhere.

### Weather conditions

Weather conditions on water are often very different from, and usually more difficult than, those encountered on land. Make sure to familiarize yourself with and to understand these – and, prepare for the worst.

- Waters are not spared by **thunderstorms**. A sudden squall can disrupt a body of water within minutes. If **lightning** hits water, it always seeks contact with the highest element. Do not stay in gravitational water when a thunderstorm builds up. Fog usually dissipates quickly on lakes; however it can appear quite suddenly and can stay several days in maritime zones.

Prevention will always be your closest ally. Kayakers wishing to make multi-day excursions should be very knowledgeable of weather patterns, map reading, radio communication, as well as emergency procedures. In addition, they should have solid navigational skills.

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Always begin your journey together with at least one other kayak and leave a copy of your trip plan with a reliable person. Should this person not hear from you within a certain time, he or she will initiate search procedures.

When planning your itinerary, make allowances for potential dangers and make sure you have the necessary skills and equipment to deal with them.

# 4 Weather

Modern life has left us out of touch with the weather. We no longer pay it proper respect or know how to read its signs. Yet respecting and understanding weather is essential for outdoor activities, **especially sea kayaking**. Large bodies of water are susceptible to highly variable weather conditions that can have a considerable and rapid impact on boating conditions (wind, waves, tides, lightning, fog, etc.).

There are several ways to get a good idea of upcoming weather conditions. None of them are infallible, but in combination you should get fairly reliable information.

## WEATHER FORECASTS

Forecasts issued by mainstream media outlets cover large areas and only give a general idea of weather conditions over land. For marine forecasts, you should listen to the weather reports broadcast on Weatheradio covering the southern part of the country. They are updated four times a day and can be received using low-cost, pre-tuned receivers, VHF radios or scanners (see Chapter 19 for radio frequencies).

The **Canadian Coast Guard** also broadcasts continuous weather reports on the VHF band featuring general forecasts, forecasts for coastal areas, and notices to mariners.

## BASIC KNOWLEDGE

It only takes a basic grasp of meteorological knowledge to interpret forecasts **and adapt them to local conditions. Caution: Weather conditions over water can be very different from those on land**. Listen to **marine weather forecasts regularly** (see Resources, and References).

Since the terminology used in forecasts is standardized, you should know your basic terms: units used for wind speed (km/h, knots, Beaufort), pressure (millibars or hectoPascals [hPa]), and wind direction. If you understand the forecast you'll be in a

better position to anticipate potential problems.

The arrival of a warm front generally means a progressive change (24 to 48 hours) that brings widespread rain. Cold fronts move rapidly and are accompanied by strong winds, storms, and squalls. Squalls are characterized by violent and sudden gusts of wind causing heavy swell. They can last up to 15 minutes and are a major danger for kayakers.

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*Weather conditions on the water can be very different to those on land.*

## STAY ALERT

A good sense of observation will help you keep track of changes in local weather conditions over the short term: changes in cloud cover, sharp variations in temperature, lay of the land, and local prevailing winds.

**Wind speed, for example, can double in narrows, creating strong waves. In encased valleys, wind may blow from an unexpected direction and increase in intensity. Wind can also whip up the seas at the base of cliffs because of localized turbulence.**

# 5 Regulations

Although sea kayaking is a perfect way to get away from it all, it is also governed by certain laws and regulations that you must know and observe:

- Small Vessel Regulations
- Collision Regulations
- VHF Radiotelephony Practices and Procedures Regulations

Under the Canada Shipping Act, 2001 Transport Canada is the government department responsible for pleasure boating. Sea kayak is subject to the *Small Vessel Regulations* under the Act. Two categories of sea kayaks are targeted by the **regulations**: pleasure crafts not over 6 meters in length and pleasure crafts over 6 meters in length but not over 8 meters in length

## SMALL VESSEL REGULATIONS:

In order to abide by the regulations, you should keep the following equipment on board:

### Boats 6 meters long and less

1. **Personal flotation devices (PFD) or lifejackets approved for use in Canada and of a suitable size for each person on board**. PFDs must be comfortable and functional enough to be worn at all times. Highly visible, short models with pockets for distress flares, radio, and whistle are preferable.
2. **A buoyant heaving line at least 15 meters long** (floating throwline or throwbag).
3. **A manual propulsion device. The paddle** is the propulsion device and must be carefully selected. It may be made of wood, aluminium, plastic, or composite materials. The blades may be unfeathered or feathered. Two-piece take-apart paddles are also available in all three materials

and are good emergency paddles. There are models for every budget and taste, so try them before buying.

4. **A bailer or manual water pump for removing water**. A pump is more efficient. A large sponge can be used to remove remaining water. Don't forget to tie them down.
5. **A sound-signalling device**. You can use a whistle, a foghorn or compressed air foghorn.
6. **Navigation lights**. Between sundown and sunrise or when visibility is reduced, a white light visible over 360° is preferable, but a watertight flashlight is acceptable.

### Boats between 6 and 8 meters long (26' 3"):

1. All that is required for boats 6 meters and less
2. **A waterproof flashlight**
3. **Six Type A, B or C flares**. (See Chapter 3: Specific Dangers, and Chapter 19: Communication).

**Note**: Boats are not required to be equipped with flares if they are used on rivers, canals or lakes **in which they can at no time be more than one mile** from shore.

## COLLISION REGULATIONS

**The Collision Regulations** are part of the Canada Shipping Act, which is under the jurisdiction of Transport Canada and **also applies to sea kayaks**. It is important to follow the law to the

MIKE BEEDELL

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letter when kayaking in areas used by other pleasure craft or commercial shipping.

The Collision Regulations state, "Every vessel shall use all available means to avoid collisions." They describe passing procedures, distances to respect, maximum speeds, and the use of light and sound-signalling devices.

Various types of navigational aids (buoys) are used to help get your bearings and identify channels, isolated dangers, and special areas (diving sites, anchorage, swimming areas, etc.). It is thus essential that you be able to recognize them.

*WHEN SEA KAYAKING, PUT YOURSELF IN THE POSITION OF OTHER USERS*

Remember, for example, that even in bright, calm conditions a kayak isn't visible more than two nautical miles away, the distance a large vessel covers in four minutes.

Keep in mind that powerboat operators and the crews of cargo vessels riding high on the water can't see anything on the water less than half a mile in front of them because their view is obstructed by the bow of the boat.

Understand that even though a sea kayak allows you to manoeuvre and change direction quickly, other users can't be expected to anticipate your actions or know how skilled you are.

**Complying with the Collision Regulations is like complying with the Highway Code. It's a win-win situation.**

**Kayakers will be able to enjoy their sport in safety while earning the respect of the marine community.**

## VHF RADIOTELEPHONY REGULATIONS

**The Radiotelephone Regulations** are administered by Industry Canada. All radio operators must hold an operator's certificate (lifetime issue). If you go kayaking in coastal waters on a regular basis, a radiotelephone should be part of your basic equipment..

### In addition to the regulations

## MAINTAIN VISIBILITY ON THE WATER

A kayak is small in comparison with sailboats or other motorized pleasure crafts, fishing boats or with commercial vessels. Moreover, kayakers should maintain a preventive attitude and avoid putting themselves in situations where they cannot be seen by other boats.

The kayaker must be aware that his or her craft is very difficult to see on the water - and in any type of weather. When the kayak is in the hallow of a wave it becomes almost entirely invisible.

A kayak has very little speed and should therefore not be taken on channels or waterways. When crossing through large bodies of water, particularly at river mouths where sea traffic is heavy, extreme care is advised. The safest place for kayaking is along the shoreline.

If an approaching boat does not seem to recognize the kayak, the kayaker should signal his/her presence using sound (horn or whistle) or visual signals. The paddle is without doubt the piece of equipment with which the kayaker can best draw attention to him/herself.

Clothing and PFDs should have very bright colours. Even if new colours have been approved, orange is still the colour that is the most visible on the water in all conditions. Other ways of attracting attention in emergency situations are: a flag mounted on a branch, visual distress signals, flags, horns, and signalling mirrors.