# Collision Regulations Under any condition of visibility

Station 60 – Comox Valley

Crew Course

This video is on the Collision Regulations, specifically the section on vessel conduct under any condition of visibility… that is ALWAYS when on the water.

## Section I – Conduct of Vessels in Any Condition of Visibility

- Rule 4 – Application
- Rule 5 – Lookout
- Rule 6 – Safe speed
- Rule 7 – Risk of collision
- Rule 8 – Action to avoid collision
- Rule 9 – Narrow channels
- Rule 10 – Vessel separation schemes

Rule 4 introduces the subsequent rules in this section. It specifies that these rules, 5 through 10, apply under any condition of visibility.

We will now explore these rules in sequence.

## Rule 5 – Lookout

- You must keep a proper lookout with eyes and ears at all times
- This includes poor visibility and night-time
- If you have radar, you MUST use it: “All available means” must be used to keep a good lookout


RCM • SAR

Every vessel is required to maintain a proper lookout at all times.

On our boats the coxswain will assign lookout tasks to the crew. Unless otherwise directed, the helm will focus on ahead and to starboard and the navigator will focus on ahead and to port. Someone should be assigned responsibility to cover the stern. Generally, everyone in the crew will be expected to contribute to the look-out responsibility and should cover all sectors to some degree so there is redundant coverage.

Our vessels are equipped with radar, and this rule requires that radar always be used to maintain a

proper lookout. RCM SAR regulations re-enforce this by stating that our vessels must use their radar.
However, you should never rely on radar too much – never overlook the importance of using your eyes and ears.
Be aware of what our area looks like at night. To be effective it is important to recognize with things are not as they should be. This means it is critical to know what **normal** looks like… even at night.

## Rule 6 – Safe Speed

- You should travel at a speed that gives you adequate time to assess and plan the manoeuvres to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions
- Some of the factors that might cause you to slow down are:
  - visibility
  - volume of traffic
  - wind, sea, current and proximity of navigational hazards
  - background lighting
  - water depth

Vessels are required to operate at a safe speed at all times. Your speed must allow you time to assess the situation as it changes and to manoeuvre accordingly. In open water there are no posted speed limits. Although there may be maximum speeds posted in harbours and marinas.

When making way, it is up to a mariner's judgement as to the fastest speed allowed by this rule. The rule provides many of the factors that must be used in applying that judgement.

A Canadian modification to the international COLREGS requires that mariners meeting dredges and similar

working vessels to choose “a speed that will not adversely affect the vessel or work being passed”. Furthermore, if there is any uncertainly that your speed is slow enough, you must go even slower.

## Rule 7 – Risk of Collision

- Frequently assess all the vessels in the vicinity of your vessel to see if they are likely to come close (Use all available means appropriate to the conditions to determine if risk of collision exists)
- Assumptions must not be based on scanty information, especially scanty radar information
- If the relative bearing of another vessel does not change much – i.e., is steady – and range is closing, then you are on, or nearly on, a collision course
- A relative compass bearing is specifically stated as a way to assess risk of collision

This rule requires every vessel to maintain awareness of other vessels and to continuously assess the risk of collision. All available means must be used; if radar is available it **MUST** be used in addition to other sensors – eyes and ears. If there is any doubt that the risk exists, then you are to assume that it **DOES** exist – ambiguity or uncertainty about risk is not to be accepted.

Crews must not make assumptions based on scanty information. They must take measures to resolve assumptions. And if crews remain uncertain, they should respond as if the risk exists.

The rule specifies that a vessel that is on a constant relative bearing must be watched carefully, especially if the range is closing. A constant relative bearing and closing range is a clear indicator that vessels are on a collision course.

## Rule 8 – Action to Avoid Collision

- Any action you now take, should comply with these rules, and must be obvious to the other vessel, and result in the two vessels passing well clear of each other
- Ensure the move is large enough to be readily observable to another vessel: e.g., “Starboard – 30 degrees”
- If further assessment/action is required – slow or stop the vessel
- Remember Rule 2 – “good seamanship” may “overrule“ COLREGS

If a risk of collision exists you must take measures that conform to the COLREGS, and any manoeuvres **must** be clear to the crew of the other vessel so they can accurately anticipate your intentions.

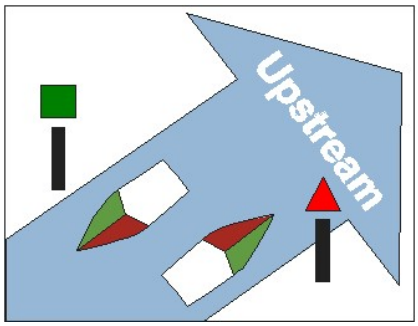
Generally it is easier to see a vessel turning away than to see a change in speed. So, if you are the give-way vessel, a substantial and early turn should be your first choice, and a series of small turns should be avoided since they may not be detected.

If you believe you are the stand-on vessel and the other vessel is not giving way, you may sound five or more short blasts, indicating “your intentions are

unclear” – it’s a wake-up call to the other vessel!
If a collision is imminent and you believe you are the stand-on vessel, you **must** take action, even if your actions will not accord with the COLREGS. Under Rule 2 everyone must exercise good seamanship, even if it means departing from the COLREGS.

## Rule 9 – Narrow Channels

- In narrow channels, all vessels should keep to the starboard side of the channel.




In narrow channels, the COLREGS call for action similar to driving on the highway.

This rule specifies that the vessels in narrow channels keep to the right… just like on the highway.

Canada has a modification in the case of a narrow channel or fairway where there is a current or tidal stream – say like the Courtenay River or Fraser River. In this case where two power-driven vessels meet, the vessel traveling with the current shall be the stand-on vessel and the other vessel will give way. The stand-on vessel will signal its intentions with sound signals.

## Rule 10 – Traffic Separation Schemes

- "Traffic separation scheme" means a routing measure that provides for the separation of opposing streams of traffic by appropriate means and by the establishment of traffic lanes.Traffic shall follow the traffic separation scheme where one is designated.
- "Traffic lane" means a route within which there is one direction of traffic flow.
- "Separation zone" or "separation line" means a zone or line separating routes in which vessels are proceeding in opposite or nearly opposite directions or separating a route from the adjacent inshore traffic zone

Traffic separation schemes are intended for large ships. The vessels of RCM SAR should not use them. The managers of the system in our area are coast-guard radio operators using the callsign "Victoria Traffic" on VHF Channel 11. Generally the operators will not accept smaller vessels operating within this separation scheme. And you must get prior approval if you want to use the system.

If you cross a traffic lane quickly and responsibly that does not constitute using the system.

## Rule 10 – Traffic Separation Schemes

- Where you are outside it, you should avoid it
- If you have to cross it you should cross as near right angles as possible
- A vessel less than 20 metres in length shall not impede a ship in a separation scheme
- Canada Shipping Act provides penalties for failure to comply

Traffic separation schemes are intended for the “big guys”, typically large commercial vessels like bulk carriers, oil tankers, and cruise ships.

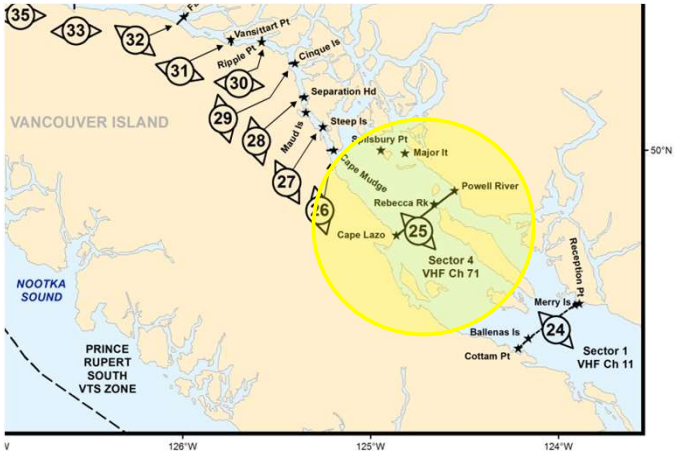
For everyone else, the general idea is to stay clear of these traffic systems.

There are no traffic schemes in the northern Strait of Georgia, so our boats generally don’t need to be too concerned…. Unless we operate in the southern part of the strait.

For vessels not using the scheme, they should try to avoid it. If they have to cross, it should be at near 90 degrees.

Smaller vessels should not impede vessels that are using the scheme. And there are penalties in the Canada Shipping Act for failure to respect vessels that use it.

## Local traffic monitoring

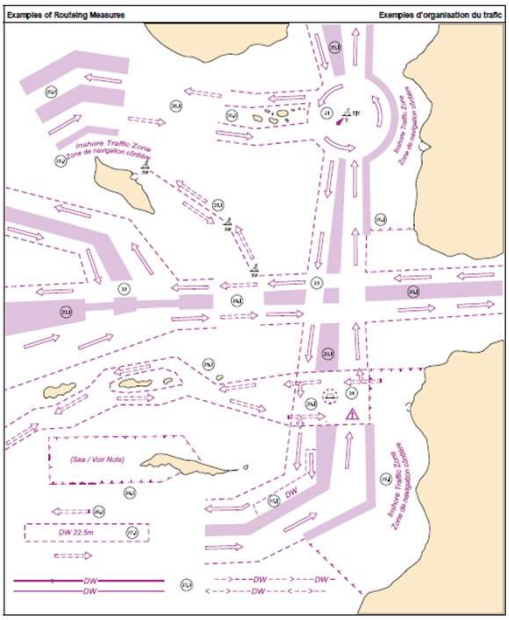



In the northern Strait of Georgia there are calling-in points, mainly used by commercial vessels. On VHF channel 71, you will hear vessels calling in to “Victoria Traffic” that they are crossing various demarcation lines. One line, Number 25, runs from Cape Lazo northeast to Powell River and you can listen on Channel 71 as tugboats and other traffic report they have crossed this line.

Note that this arrangement of calling-in points does not constitute a traffic separation scheme under Rule 10 of the COLREGS. Of course the other rules of the COLREGS apply when our boats deal with traffic in the

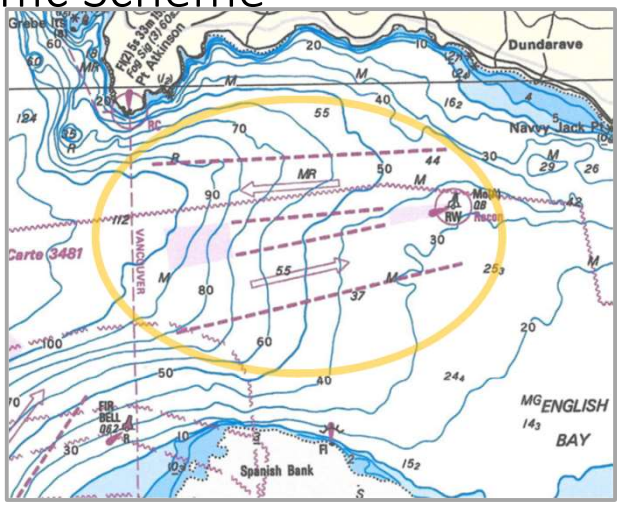
Strait of Georgia.

Example from
Chart 1
Section M




A vessel traffic scheme is indicated on charts with magenta over printing as indicated here.
Almost like a highway on the water, there are two adjacent lanes with traffic in one lane moving in the opposite direction to the adjacent lane.
Most schemes are not as complicated as this example.

## Approaches to Vancouver Harbour – Vessel Traffic Scheme



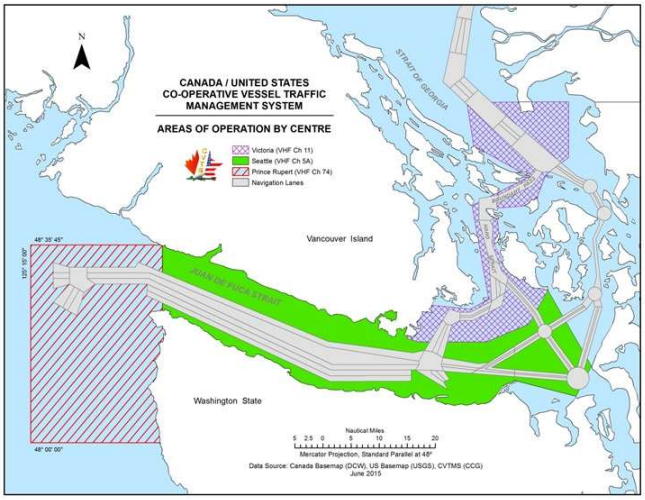

Two traffic lanes:

- North lane is for westbound traffic
- South lane is for eastbound traffic

The two lanes just outside the Burrard Inlet (part of the Vancouver harbour system) are shown here. There is a westbound lane on the North side and the eastbound lane on the South side.

Of note: the radio operators we in Station 60 communicate with, the ones with the callsign “Victoria Coast Guard Radio”, sit in the same operations room as those that manage the vessel traffic system, using the callsign “Victoria Traffic”. So, from a traffic awareness perspective, the radio operators in Victoria can provide the same overwatch we would have as if we were in the “big ship” system.

## From Vancouver to the Pacific Ocean

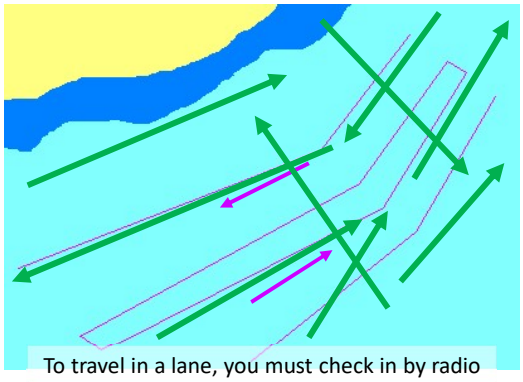



RCM • SAR

On the southern coast of British Columbia the vessel traffic scheme links Vancouver harbour and the Puget Sound with the Pacific Ocean. One “highway” runs from Vancouver harbour passes across to the south of Victoria and then heads south then west out through Strait of Juan de Fuca. Along the international border there is a cooperative arrangement between Victoria and Seattle to manage the traffic.

## Rule 10 – Traffic Separation Schemes

- Good courses in or near separation schemes



To travel in a lane, you must check in by radio
Only for the "big guys"

Here we can see good courses to use near a separation scheme. If a vessel is part of the scheme, it should travel with the flow for the appropriate lane. If a vessel must cross the lanes, it should be as close to 90 degrees as possible.

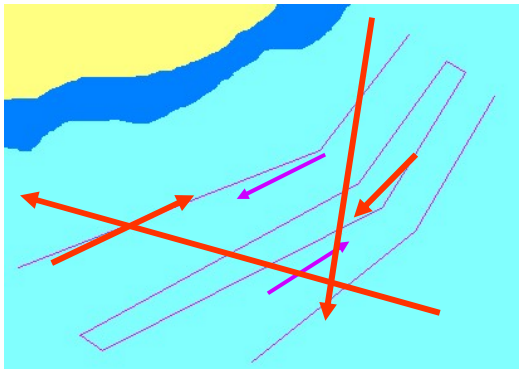
If you travel close to a lane, it would be best to be travelling with the adjacent flow… just out of common sense. If you need to travel against the flow, you should make sure you are well away from traffic using that lane.

COLREGS do not set any rules for traffic outside of a scheme. Choices of direction and speed are up to good

seamanship.

## Rule 10 – Traffic Separation Schemes

- Bad courses in or near separation schemes



There are, however, courses that should not be considered when in or near a traffic scheme. They may be viewed as examples of poor seamanship and bad judgement.

Questions?
Comments?


This concludes the video on those rules that apply in ALL condition of visibility. Note in particular the rules on look-out, safe speed, assessing the risk of collision, and actions to take when the risk is high. These rules are critical to the safe operation of our boats.