



Standard Operating Procedure – SOP 03-20

Vessel Operations

April 1, 2020

Vessels operating under the RCMSAR banner are in the public eye on many occasions and we need to operate vessels in a manner that is professional and provides an example to other boaters at all time. In addition to other RCMSAR SOPs, the guidance provided in this SOP should always be followed when operating but is not intended to override the discretion of the coxswain who has charge of the vessel. This section is equally applicable to operational missions as a SAR vessel needs to arrive safely in order to be effective.

RESPONSIBILITY

RCMSAR coxswains **are in charge** of the vessel, the crew, and all passengers that may be embarked. With that responsibility comes an obligation to abide by the rules contained in the International Regulations for the Prevention of Collisions at Sea. While all crew members must be aware of the rules it is the coxswains who must make the final decision in implementing them.

While underway, the coxswain must ensure that all tools available are being used to ensure the safety of the crew and vessel which includes the use of one's eyes and ears. Visual and audio awareness has proven to be one of the most effective methods of keeping safe and it is well known that an overreliance on electronic aids has led to groundings and collisions. This is true no matter the circumstance under which you are operating.

All must remember that under **Rule 2 Responsibility** of the International Regulations for Preventing Collision at Sea – one is ultimately responsible for any decision you make as stated:

- (a) Nothing in these Rules shall exonerate any vessel, or the owner, master or crew thereof, from the consequences of any neglect to comply with these Rules or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case.*
- (b) In construing and complying with these Rules due regard shall be had to all dangers of navigation and collision and to any special circumstances, including the limitations of the vessels involved, which may make a departure from these Rules necessary to avoid immediate danger.*



PRIOR TO DEPARTURE

Prior to departure the Coxswain is to ensure that:

- a. Equipment checks are completed for personnel and the vessel
- b. That a mission brief has occurred
- c. That a safety and route brief has occurred, and
- d. That a GAR-risk assessment has been completed

PROPER LOOKOUT

Under **Rule 5 - Look-out** of the International Regulations for Preventing Collison at Sea - *Every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.*

For RCMSAR crews this means that:

- a. All equipment must be operating properly
- b. Radars must be tuned properly for conditions, at the appropriate range scale and being monitored
- c. Electronic charts must be at an appropriate range scale and monitored properly
- d. Visual lookouts must be properly briefed, re-briefed frequently and relieved if fatigue becomes a factor

SAFE SPEED

Under **Rule 6 - Safe Speed** of the International Regulations for Preventing Collison at Sea - *Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions.*

In addition, coxswains should be mindful of the facilities along the shoreline, other vessels, and potential wake damage when determining a safe speed.



In determining a safe speed RCMSAR coxswains must take, at a minimum, the following factors into account:

- a. *By all vessels:*
 - (i) *the state of visibility,*
 - (ii) *the traffic density including concentrations of fishing vessels or any other vessels,*
 - (iii) *the maneuverability of the vessel with special reference to stopping distance and turning ability in the prevailing conditions,*
 - (iv) *at night the presence of background light such as from shore lights or from back scatter of her own lights,*
 - (v) *the state of wind, sea and current, and the proximity of navigational hazards,*
 - (vi) *the draught in relation to the available depth of water.*
- b. *Additionally, by vessels with operational radar:*
 - (i) *the characteristics, efficiency and limitations of the radar equipment,*
 - (ii) *any constraints imposed by the radar range scale in use,*
 - (iii) *the effect on radar detection of the sea state, weather and other sources of interference,*
 - (iv) *the possibility that small vessels, ice and other floating objects may not be detected by radar at an adequate range,*
 - (v) *the number, location and movement of vessels detected by radar,*
 - (vi) *the more exact assessment of the visibility that may be possible when radar is used to determine the range of vessels or other objects in the vicinity.*

NIGHT OPERATIONS

Operations at night brings its own challenges such as differing levels of darkness, need for night vision, background lighting and potential crew fatigue. As such coxswains are to ensure that in addition to normal operations the following occurs.

Prior to Engaging in Night-Time Operations

- a. Ensure or re-confirm that the radar is functioning properly. If there is a secondary multi-function display (MFD), confirm that one is properly operating as well. Note all targets on radar.
- b. Ensure that vessel is operating at safe speed for prevailing circumstances and conditions. This may mean a significant reduction in speed
- c. Ensure lookout is posted and adequate communication is established.
- d. Display appropriate navigation lights at full brilliancy.
- e. Ensure all equipment lighting is adjusted to the minimum brilliance needed for operations



Operating in Night-Time Operations

In addition to the above:

- a. Update vessel position every 15 minutes, and as needed for significant events. Note position in logbook.
- b. Relieve lookouts on a regular basis.
- c. Maintain proper radar watch. Scan/vary the range scales to monitor all traffic.
- d. Second radar display, if equipped and crewing allows, is to be monitored.
- e. Consider having a lookout operate searchlight to spot objects such as unlit nav aids and adjacent shorelines. Keep in mind the effects this can have on night vision.
- f. Consider the use of night vision equipment.
- g. Constantly re-assess speed based on factors under rule 5.

RESTRICTED VISIBILITY OPERATIONS

Rule 19 – Conduct of vessels in restricted visibility of the International Regulations for Preventing Collisions at Sea - *applies to vessels not in sight of one another when navigating in or near an area of restricted visibility.* Operations in restricted visibility can be the most challenging as there is a significant need to rely on electronic detection, primarily radar and auditory clues, with an increased potential of crew fatigue. As such coxswains are to ensure that in addition to normal operations the following occurs.

Prior to Entering an Area of Restricted Visibility

- a. Ensure that radar and second MFD are functioning properly.
- b. Note all targets on radar and share with crew. Maintain close radar watch.
- c. Ensure that vessel is operating at safe speed for prevailing circumstances and conditions.
- d. Ensure additional lookout is posted and adequate communication is established.
- e. Engage appropriate fog signal. Note time in logbook.
- f. Display appropriate navigation lights at full brilliancy.



Operating in an Area of Restricted Visibility

In addition to the above:

- a. Update vessel position every 15 minutes, and as needed for significant events. Note position in logbook.
- b. Relieve lookouts on a regular basis.
- c. Ensure that all VHF safety and traffic channels are being monitored.
- d. Maintain proper radar watch. Scan/vary the range scales to monitor all traffic.

CONFINED WATERS

Under the direction of the Coxswain of the vessel, all crew will adhere to the following procedures when approaching, entering and transiting confined waters. The Coxswain will determine and advise when the vessel is operating in waters considered to be confined. For our vessels there are few areas that are truly confined however, this section should be reviewed for channels less than 300 feet (half a cable) wide either by land or depth, and areas of heavy traffic such as harbours.

Approaching Confined Waters

- a. Ensure all crew are aware of upcoming confined waters.
- b. Ensure that largest scale paper chart for the area is readily available.
- c. Ensure that depth sounder is operating properly and confirm units.
- d. Consider monitoring the local VTS frequency if operating in a high traffic area.
- e. Update lookout as to status. Assign additional lookout(s) if required.
- f. Adjust speed for prevailing conditions and to minimize wake. Watch for small boats and dock on the shore.
- g. If transiting at night or in restricted visibility, take precautions detailed in those sections

Navigation in Confined Waters

In addition to the above:

- a. Adjust radar and chart plotter scale for prevailing circumstances.
- b. Navigator to constantly monitor vessel's position using all means available, including but not limited to paper charts, chart plotter, radar, depth sounder and visual lookout.
- c. Sound appropriate sound signal prior to nearing a bend or area of a narrow channel where other vessels may be obscured.
- d. Ensure a Safe Speed is maintained at all times.
- e. If operating in confined waters at night or restricted visibly, take further precaution detailed in those sections.