



NAVY LEAGUE  **LIGUE NAVALE**
A New Wave Of Adventure! *Une mer d'aventure!*

WATERCRAFT SAFETY ORDERS

FOR NAVY LEAGUE CADETS

PREFACE

Boating and canoeing are important elements of the Navy League Cadet Training Program. Although orders relating to boating safety can be found in a number of publications, they have not always been readily available to personnel closely involved in boating activities. This publication has been designed to provide a ready-reference, single document containing all orders and information pertinent to boating safety. These safety orders will apply to all watercraft used by all Cadets at all times, regardless of who owns the boats.

Much of the 1996 Watercraft Safety Orders was incorporated into the 2006 version. Major changes were made to accommodate the newest federal regulations and to align terminology with the present cadet programme. As a matter of interest, it was noted that diagrams in the 1996 version refer to the vessel with “right of way” (Rules of the Road) whereas the 2006 version shows who must “give way”. It is the opinion of this Committee that the rules should be taught with an emphasis on caution. Experience in the boating world gives evidence that too much time is spent by the novice trying to determine if they have the right of way when, in fact, it would be best if they were deciding if they must give way. While the difference is subtle, the mindset of “watching out” for the other vessel is far healthier than convincing yourself that the other vessel must “watch out” for you.

Any suggested amendments to this Watercraft Safety Policy are to be forwarded to the National Office – The Navy League of Canada.

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CHAPTER 1

GENERAL WATERCRAFT SAFETY ORDERS

GENERAL

1. These orders are intended to provide minimum safety standards for the operation of watercraft used for cadet training. Additional orders and limitations may be imposed at the discretion of the Navy League Cadet Commanding Officer and/or the Branch President depending upon local conditions. Such additional orders, however, shall not impose a standard of safety lower than that established in these orders.
2. The purpose of boating training is to give cadets training in seamanship and to develop the qualities of self-reliance and leadership. While care must be taken in providing proper supervision and policy guidelines, it must be remembered that over-restrictive orders will lead to an uninteresting and ineffective programme. Before additional orders are formulated, these questions should always be asked: "Does this order really contribute to safety?" and "Is it practicable under local conditions?" Above all ask "Is it safe?"
3. Notwithstanding anything in these or additional orders, personal safety shall in all circumstances take priority over all other considerations including schedules and training requirements.

APPLICATION

4. From the point of view of The Navy League of Canada, these orders shall apply to the use of watercraft by Navy League Cadets:
 - i. when using watercraft which are the property of or under the jurisdiction of the Navy League of Canada;
 - ii. when the boating activity is under the direction or supervision of a person appointed by the Navy League of Canada or any of its Divisions or Branches;
 - iii. when the boating activity is under the direction or supervision of an officer or civilian Instructor of a cadet corps for which the Navy League of Canada is the local sponsor.

BOATS OFFICERS

5. Every facility operating watercraft for use by cadets shall appoint an officer or civilian instructor to serve as Boats Officer, responsible for all boating activities of the facility, and shall provide written orders outlining in detail the duties and responsibilities of this officer.
6. Additional personnel may be appointed as Assistant Boats Officer under the Boats Officer's supervision and direction.
7. Appointment of the Boats Officer and Assistant Boats Officer shall be made:

- i. by the Cadet Corps Commanding Officer in consultation with the Branch, in the case of facilities operating watercraft which are the property of or under the jurisdiction of the local Branch and used for Cadet Training;
- ii. by the appropriate DND authority in the case of facilities operating watercraft, which are the property of or under the jurisdiction of DND;

BOATHOUSE ORDERS

8. The Boats Officer shall, under the direction of the applicable appointing authority, develop a set of boathouse orders to cover the administration of the boathouse, boating activities, the repair and maintenance of watercraft and any additional safety rules appropriate to the location or nature of the local boating activities.

9. Such boathouse orders, together with these Watercraft Safety Orders, shall be posted and readily available to all persons engaged in or supervising boating activities.

FIRST AID KIT

10. Every boating/canoeing facility shall be equipped with a First Aid Kit, kept in a waterproof container and easily accessible to all personnel engaged in boating/canoeing operations. As a minimum the following should be contained in the First Aid Kit:

- i. rubber gloves;
- ii. scissors;
- iii. safety pins;
- iv. tweezers
- v. antiseptic wipes;
- vi. iodine wipes
- vii. pressure bandages;
- viii. gauze pads;
- ix. cotton swabs; and,
- x. assorted bandages

ACTION TO BE TAKEN IN THE EVENT OF A BOATING ACCIDENT

11. Rapid and appropriate action in the case of a boating accident may save lives. Such action shall include:

- i. assistance by all other boats in the area. It is a requirement that assistance be provided by any other boats, to a boat in distress, unless it is obvious that the crew of the boat in difficulties can solve its own problem, or that appropriate assistance is being rendered;
- ii. assistance taking priority over all other activities including racing, training and scheduled events;
- iii. assistance from all other boats continuing as required, consistent with their own safety and their coxswain's skills;
- iv. contacting help as soon as possible through the following organizations in the order shown:
 - a. other boats in the area;

- b. local boating rescue facilities – yacht clubs, marinas, police forces, rescue teams, etc;
 - c. DND/Coast Guard Rescue Coordination Centre;
 - d. local or provincial police.
- v. in the event that any persons involved in a boating accident are missing, even temporarily, all of those indicated in paragraph (iv) are to be notified at once
- vi. officers and leaders involved with cadet boating activities must be aware of the rescue facilities in their area and should have the telephone numbers of these facilities readily available and posted.
- vii. Notification. If a boating accident results in serious injury or death, the following must be notified once the incident is over:
 - a. the local or provincial police;
 - b. the local Branch President;
 - c. the Division President;
 - d. the National Office of The Navy League of Canada.

Notwithstanding the information above, the National Office must be notified within thirty (30) days of the accident, in order to notify the insurance carrier of possible claims.

12. Failing to Stop. All personnel are reminded that it is an indictable offence under the Criminal Code of Canada to fail to stop at the scene of a boating accident.

CHAPTER 2

EQUIPMENT REQUIREMENTS

GENERAL

1. All vessels shall be equipped in accordance with the standards as set out in the Small Vessel Regulations. These equipment requirements are also published in the *Safe Boating Guide* provided by The Department of Fisheries and Oceans - Canadian Coast Guard. The following chapters detail the requirements for each type of vessel.

FIRE EXTINGUISHERS

2. Fire extinguishers required by the Small Vessel Regulations shall be of a type approved by:
- i. Underwriters Laboratories Inc.;
 - ii. Underwriters Laboratories of Canada;
 - iii. The British Board of Trade, for marine use.

EQUIVALENT FIRE EXTINGUISHERS

3. The designators (such as A1) may not appear on the label. All sizes are considered to be a minimum requirement.

Class	H2O (litres)	Foam (litres)	CO2 (kg)	Dry Chem (kg)
A1	4.5	4.5		
A2	9.0	9.0		
B1		4.5	2.25	0.9
B2		9.0	4.5	2.25

PYROTECHNIC DISTRESS SIGNALS

4. An approved pyrotechnic distress signal (flare) is waterproofed by the manufacturer and packed in a waterproof container. Instructions or diagrams showing the method of operation are marked on the signal, as are the lot number and date of manufacture. If four years or more have elapsed since the date of manufacture, the distress signal is considered to no longer meet the requirements and should be replaced.

There are four types of flare:

- i. Type A – a parachute rocket, single red flare;
- ii. Type B – a multi-star (two or more) rocket, free-fall red stars;
- iii. Type C – a hand-held red flare;
- iv. Type D – a buoyant or hand-held orange smoke flare, which is considered suitable as a daylight distress signal.

LIFEJACKETS

5. For the purposes of these orders, the Cadet Personal Flotation Device (PFD) is either an approved Transport Canada Personal Flotation Device or a DND cadet Personal Flotation Device. The PFD shall be worn by all personnel as follows:
 - i. in a vessel 6m (19.5 ft) or less in length - a PFD shall be worn at all times regardless of the water and weather conditions;
 - ii. in a vessel over 6m (19.5 ft) in length not equipped with a cabin - a PFD shall be worn by all personnel while the vessel is underway, excepting those who are below decks. Personnel leaving the cabin area shall put on their PFD.
6. The Cadet PFD as defined in this article is the only flotation device approved for cadet training.

HELMETS

7. All personnel participating in sail training who are qualified at the White Sail II level and below must wear a helmet.

SHOES

8. Soft-soled shoes shall be worn at all times on any sailing craft and small powered vessel such as those used as safety boats.

CHAPTER 3

SAILING SAFETY ORDERS

GENERAL

1. These orders shall apply to all sailing vessels used for cadet training, regardless of the ownership of the vessels.
2. These orders refer to the operation of powerboats insofar as they are used as safety boats in a sailing program. For the general operation of powerboats by or in association with cadet training, *see Chapter 4*.

FLOTATION OF BOATS

3. All sailboats used by cadets shall be capable of remaining afloat when capsized or completely filled with water.
 - i. Sailboats 5m (16 ft) or less in length - The integrity of the flotation systems shall be tested by trial immersion prior to the start of sailing activities for the year and again following any occasion when a boat has received damage that might interfere with the effectiveness of the flotation.
 - ii. Sailboats Over 5m (16 ft) in length. - Where trial immersion is practicable, this shall be performed (as in paragraph 4). Where this is not practicable, the flotation system should be inspected and checked by the most effective practicable method prior to the start of sailing activities for the year.

EQUIPMENT TO BE CARRIED IN SAILBOATS

4. All vessels shall be equipped as required by the Small Vessel Regulations, found in the current edition of the *Safe Boating Guide*, published by The Department of Fisheries and Oceans - Canadian Coast Guard. One or more copies of this booklet shall be readily available in all boating facilities.

LICENSING AND EQUIPMENT REQUIREMENTS OF THE SMALL VESSEL REGULATIONS

5. Every vessel less than 15 tons gross equipped with a motor, or motors, of 7.5 kilowatt (10 HP) or more must be licensed. Licenses are provided free on request from the nearest Canadian Customs and Revenue Agency Office. Before the vessel is operated, the license number issued must be marked in block characters, not less than 75mm (3 inches) high and in a colour which contrasts with the background, on each side of the vessel as close to the bow as practicable. The number should be clearly visible from each side. The number shown on their main sail commonly identifies small sailboats.

6. The following equipment is required on all sailing vessels according to the specified length. The length of the vessel may be determined by reading the manufacturer's "tally" plate that is attached to the vessel.

Note:

"Approved" means approved by Transport Canada. The Standard Lifejacket (keyhole type) approved by the Board of Steamship Inspection may be substituted for any approved flotation device (PFD) required by the Small Vessel Regulations.

- i. Sailboats 6m (19.5 ft) or less in length shall be equipped with:
 - a. one approved Personal Flotation Device (PFD) per person;
 - b. two paddles;
 - c. one buoyant heaving line of not less than 15 m in length;
 - d. one bailer secured by a lanyard **or** one manual water pump (with hose) secured by a lanyard;
 - e. a sound signalling device/appliance;
 - f. if the vessel is equipped with a fuel burning appliance, a Class 5BC Fire Extinguisher is required; and
 - g. if the vessel is to be operated after sunset and before sunrise or in periods of restricted visibility, the requirement to have appropriate navigational lights is also required..
- ii. Sailboats over 6m (19.5 ft) but not over 8 m (26 ft) in length shall be equipped with:
 - a. one approved Personal Flotation Device (PFD) per person;
 - b. one buoyant heaving line of not less than 15m in length **or** one approved lifebuoy with an outside diameter of 610mm or 762mm that is attached to a buoyant line of not less than 15m in length;
 - c. two paddles or an anchor with not less than 15m of cable, rope or chain in any combination;
 - d. one bailer secured by a lanyard or one manual water pump (with hose) secured by a lanyard;
 - e. one watertight flashlight;
 - f. one sound signalling device/appliance;
 - g. a re-boarding device if the freeboard of the vessel is greater than 0.5m;
 - h. if the vessel is equipped with a fuel burning appliance, a Class 5BC Fire Extinguisher is required;
 - i. if the vessel is to be operated after sunset and before sunrise or in periods of restricted visibility, the requirement to have appropriate navigational lights is also required; and
 - j. six Canadian approved flares of Type A, B or C except when the vessel is operating in a river, lake or canal in which it can at no time be more than one mile from shore or when the vessel is engaged in an official competition and has no sleeping arrangements.
- iii. Sailboats over 8m (26 ft) but not over 12m (39 ft) shall be equipped with:
 - a. one approved Personal Flotation Device (PFD) per person;
 - b. one buoyant heaving line of not less than 15m in length;
 - c. one approved lifebuoy with an outside diameter of 610mm or 762mm that is attached to a buoyant line of not less than 15m in length;

- d. one anchor with not less than 30m of cable, rope or chain in any combination;
 - e. one bailer;
 - f. one manual water pump fitted with a hose;
 - g. one watertight flashlight;
 - h. one sound signalling device/appliance;
 - i. navigation lights that meet the applicable standards set out in the *Collision Regulations*.
 - j. a re-boarding device if the freeboard of the vessel is greater than 0.5m;
 - k. if the vessel is equipped with a fuel burning appliance, a Class 5BC Fire Extinguisher is required;
 - l. if the vessel is to be operated after sunset and before sunrise or in periods of restricted visibility, the requirement to have appropriate navigational lights is also required; and
 - m. twelve Canadian approved flares of Type A, B, C or D except when the vessel is operating in a river, lake or canal in which it can at no time be more than one mile from shore or when the vessel is engaged in an official competition and has no sleeping arrangements.
- iv. Sailboats over 12m (39 ft) but not over 20m (65.5 ft) shall be equipped with:
- a. one approved Personal Flotation Device (PFD) per person;
 - b. one buoyant heaving line of not less than 15m in length;
 - c. one approved lifebuoy with an outside diameter of 610mm or 762mm that is equipped with a self-igniting light and is attached to a buoyant line of not less than 15m in length;
 - d. one anchor with not less than 50m of cable, rope or chain in any combination;
 - e. bilge pumping arrangements;
 - f. one class 10BC fire extinguisher at each of the following locations:
 - i. at each access to any space where a fuel-burning appliance is fitted;
 - ii. at the entrance to any accommodation space;
 - iii. at the entrance to the engine space, if powered.
 - g. one axe;
 - h. two buckets, each with a capacity of 10L or more;
 - i. one watertight flashlight;
 - j. twelve Canadian approved flares of Type A, B, C or D, not more than six of which are of Type D;
 - k. two sound signalling appliances (bell and whistle);
 - l. navigation lights that meet the standards set out in the *Collision Regulations*; and
 - m. a re-boarding device.

SPECIAL VESSELS

SAILBOARDS

7. Sailboards must carry, in lieu of equipment prescribed elsewhere in this section, one approved Personal Flotation Device (PFD) for each person onboard and one sound signalling device or appliance.

RACING SAILBOATS

8. Racing type vessels, when engaged in formal training, in an official competition or in final preparation for an official competition that is operated under conditions of clear visibility and attended by a safety boat, may carry, in lieu of the equipment prescribed elsewhere in this Chapter, the safety equipment that is required under the rules of the applicable governing body.

SAFETY BOATS

9. Whenever one or more sailboats 6m (19.5 ft) or less in length are used by cadets, a suitable safety boat shall be manned and operational. Not more than eight sailboats may be monitored by each safety boat. This ratio shall be decreased in adverse conditions.

10. A safety boat shall be a powerboat or sailboat equipped with a motor, of sufficient size and power for carrying out rescue work in severe rescue conditions. The size and stability of a safety boat shall be appropriate to the waters in which it will be operated. In no case shall its length be less than 3.7m (12 ft).

11. In addition to the equipment required by the Small Vessel Regulations for powerboats (see Chapter 4), each safety boat shall be equipped with the following items:

- i. two spare Cadet PFDs;
- ii. two foil and plastic rescue blankets **or** two wool blankets in a waterproof bag;
- iii. one red shape and staff (a painted bleach bottle is suitable);
- iv. one class C first aid kit;
- v. one class 5BC fire extinguisher;
- vi. one anchor (if depth of water permits);
- vii. one spare tank of fuel; and
- viii. one small tool kit (to conduct minor repairs to sailboats).

12. Safety Boat equipment items are to be listed on a checklist and shall be checked on each occasion that the safety boat is used.

13. The operator of a safety boat shall comply with the standards set out by the *Competency of Operators of Pleasure Craft Regulations*. These requirements and others are detailed in Chapter 4 of these orders.

14. If the safety boat becomes unserviceable, sailboats shall not be permitted to leave the docking area. Should the safety boat become unserviceable while there are already boats sailing, all boats shall be recalled and will return as quickly as possible to the docking area.

15. Immediately upon sighting a capsized cadet sailboat, the safety boat shall proceed at maximum safe speed to the vicinity of the capsized boat. It shall remain there until either:
- i. the boat is righted and the operator is satisfied and the crew is safe to proceed; or
 - ii. the crew is taken aboard the safety boat.

16. The decision as to whether or not to take a capsized boat in tow immediately shall depend upon circumstances. Bear in mind that the safety of cadets takes precedence over the safety of the boats.

17. If medical evacuation of injured cadets by the safety boat is required, the supervision of the remaining boats must be considered. An additional safety boat is required or the remaining sailboats must return to the docking area.

VISUAL CONTACT

18. The following regulations for maintaining visual contact shall apply to the operation of sailboats 6m (19.5 ft) or less in length.

19. When cadets are permitted to use sailboats for “recreational sailing” (ie. not in an organized sailing class), it is important to set boundaries within which all boats must remain. This facilitates visual contact between sailboats and the safety boat (and where possible, between all boats and the docking area) and permits effective monitoring by the safety boat. These objectives may be met in one of three ways:

- i. *Designated Point (preferred method)*. When geographical and other factors permit, a point should be designated on land from which readily visible recall or other signals can be made. This should be as close as practicable to the docking area. Sailing and safety boats shall remain at all times within sight of the designated point.
- ii. *Defined Sailing Area (alternate method)*. Where it is not practicable to use the designated point method, a sailing area should be defined using appropriate landmarks, buoys or other features. This area should be large enough to permit enjoyable sailing but so defined as to permit continuous visual contact between safety boats and sailboats and a reasonable response time by the safety boat in case of a capsize. Sailing and safety boats shall remain within the defined sailing area except when proceeding to and from it.
- iii. *Combined Method*. When a large body of water is involved, it may be desirable to use a combination of the above methods, limiting the distance that a sailboat may travel while remaining in sight of the designated point.

20. When cadets are involved in an organized sailing class, the rules of paragraph 21 may be waived at the discretion of the Commanding Officer provided:

- i. all sailboats remain in visual and sound-signal contact with the safety boat; and
- ii. a clearly defined and understood sound signal is used to order the sailboats to return to the vicinity of the safety boat.

21. When sailboats are cruising in the company of the safety boat, the following rules shall apply:
- i. all sailboats shall remain in visual and sound-signal contact with the safety boat;
 - ii. a clearly defined and understood sound signal shall be used to order sailboats to return to the vicinity of the safety boat;
 - iii. all sailboats for which a safety boat is responsible shall remain in reasonably close formation on the same tack. If a boat falls behind, those ahead shall permit it to catch up; and
 - iv. it is recommended that a “guide boat” be designated (usually the slowest sailboat) to which the movements of the other boats should conform.

RECALL

22. When it is desirable to recall sailboats because of weather conditions, time, or other reasons the method used will depend upon the way in which the sailing area has been defined:
- i. if the “designated point” method is used, a red flag (or other clearly understood flag or shape) shall be hoisted at the designated point. Upon seeing the recall signal all sailboats shall immediately return to the docking area. The safety boat shall display a red shape and make sound signals to reinforce the recall signal. If the weather or other conditions are such that the operator of the safety boat thinks that the boats should be recalled, he shall take such action without awaiting a signal from shore.
 - ii. if the “defined sailing area” method is used, the decision to recall sailboats must be made by the safety boat operator (unless radio contact is provided from shore). The operator shall be clearly instructed as to the conditions of weather, time, visibility and other factors for which recall should be ordered and shall be equipped with a watch. Upon any of these conditions being met, he shall display the red shape and make sound signals to recall all boats.

RADIOS & OTHER AIDS TO SAFETY

23. Radios shall be used if available to enhance contact between shore and the safety boat. Other aids are recommended for use by both shore stations and safety boat operators. These aids may include an anemometer (wind speed indicator), a barometer and access to the local radio weather channel, as well as cellular phones may be used.
24. If radios are in use they shall be used in addition to the visual and sound signals used for recall.

WIND AND WEATHER

25. It is not possible to detail precise rules to govern sailing safety under all conditions and in all locations. In deciding whether to permit sailing, consider the following factors:
- i. wind velocity;
 - ii. the type(s) of boats in use;
 - iii. experience and skills of the crew;
 - iv. water and air temperature;

- v. degree of protection of sailing area;
- vi. known local conditions of weather and wave action; and
- vii. marine weather forecast (this should always be checked).

26. The following is a guide for the operation of sailboats 6m (19.5 ft) or less in length:

Wind Speed	Water Surface Description at Upper Limit of Wind Speed	Sailing Guide
0 to 10 Knots	Large Wavelets, Occasional Whitecaps.	Less experienced sailors may sail and may Coxswain with guidance.
10 to 15 Knots	Small Waves, Frequent Whitecaps	Less experienced sailors may serve as crew. Experienced sailors should Coxswain.
15 to 20 Knots	Moderate Waves of Longer Non-pronounced Form. Many Whitecaps and a little spray.	Experienced sailors only should sail. There should be close supervision by a safety boat. All boats should be recalled and should return to dock at 20 knots, except as below.
20 to 25 Knots	Large Waves, Continuous Whitecaps, Moderate Spray.	Sailing permitted only in protected waters (ie. Within a break wall) for experienced sailors and with very close supervision by a safety boat.

27. Thunderstorms may produce very dangerous sailing conditions. At the first sign of a thunderstorm, all boats should be recalled. Boats still on the water when a thunderstorm occurs should, lower sails and await tow only when it is safe to do so.

28. Boats Officers who are in doubt as to whether or not to permit sailing in windy conditions should use this rule: *When in Doubt – DON'T.*

29. In the event of fog sufficient to interfere with visual contact between sailboats and safety boat, all boats will immediately return to the docking area. The safety boat shall make sound signals to reinforce this order, but the onus shall be on the individual sailboats to return. If wind drops so as to prevent sailing, boats shall be instructed to lower sails and be towed in.

FOG

30. In the event of fog sufficient to interfere with visual contact between sailboats and safety boat, all boats will immediately return to the docking area. The safety boat shall make sound signals to reinforce this order, but the onus shall be on the individual sailboats to return. If wind drops so as to prevent sailing, boats shall be instructed to lower sails and be towed in.

WATER AND AIR TEMPERATURES

31. All boathouse and safety boat personnel shall be instructed in hypothermia – its causes, symptoms and treatment – before undertaking their duties. Such instruction shall be included in the training of all cadets involved in boating training of any type.

32. All boathouse and safety boat personnel shall also be instructed in the danger of excessive exposure to the sun – causes, symptoms and treatment. Supplies of sunscreen should be available to all personnel.

33. Clothing worn by cadets shall be suitable for conditions. Both water and air temperatures should be considered. A fully clothed person with a squall suit retains body heat in cold water much longer than a lightly clad person.

34. Boats Officers shall bear in mind the dangers of hypothermia when planning sailing activities at the beginning and end of each sailing season. A capsize in late May is a much more serious event than one in August. Sailing in colder weather requires:

- i. warm clothing;
- ii. closer supervision by the safety boat;
- iii. more rapid response in case of a capsize; and
- iv. a lower “recall point” for wind and weather conditions.

SIGN IN – SIGN OUT

35. When any sailboat is taken out for the purpose of free sailing, its crew shall sign in and out with the Boats Officer. Any damage shall be reported to the Boats Officer upon signing in. Signing in and out may be waived for sailing classes where cadets are assigned regularly to specific boats and for racing and in regatta situations.

36. Boats arriving late in the sailing area shall report their presence to the safety boat before proceeding independently.

TIME LIMITATIONS

37. No sailing activities shall be carried out between sunset and sunrise. Boats 6m (19.5 ft) or less in length shall be recalled in time for them to return to the docking area prior to sunset. If wind conditions are so light as to make this impractical under sail, then boats shall be towed in.

NIGHT SAILING CONDITIONS

38. In general, small boat activity (and most sailing in larger vessels) should be limited to daylight hours. It is recognized, however, that night sailing may be a valuable experience under the right conditions, and that with proper supervision and equipment, it presents no greater hazards to a competent sailor than day sailing.

39. All boats are required to comply with the conditions set out in the *Collision Regulations* and are required to show the proper lights as described therein. Chapter 7 of these orders

summarizes the requirements for lights on a vessel while underway where there is restricted visibility.

RULES OF THE ROAD

40. At an early stage in their training, cadets shall be thoroughly instructed in the Rules of the Road (Collision Regulations) as applicable to Sailing Vessels. See Chapter 7 of these orders.

CAPSIZE DRILL

41. With modern boats and proper training, capsizing has come to be regarded as a normal, acceptable and rather minor hazard of small boat sailing except in very cold water. The competent sailor wears appropriate clothing for the conditions and knows how to get his boat righted, free of water and sailing again with a minimum period of immersion. Cadets involved in small boat sailing should, as early as possible in their training, be given thorough instruction and practice in correct capsize procedure. No cadet should be permitted free sailing privileges or to coxswain a boat until this training is complete.

SAILING SAFETY CODE

42. The Sailing Safety Code (printed below) is a brief summary of the most frequently applicable parts of the orders, presented in an easily remembered form. It is intended for use by cadets but is not to be regarded as a substitute for these orders.

- i. ***Learn sailing skills*** - the greater the skill, the more independent the sailor is of the weather and the better the chance for growth of the corps sailing operation as instructors are developed.
- ii. ***If in doubt, DON'T*** - if the weather seems to be getting worse, or foggier, come in or start back.
- iii. ***Keep a weather eye*** - always look for sudden squalls developing and for the worsening or shifting of the wind. Know the weather signs.
- iv. ***Take steps to cope before a problem develops*** - reef down; drop the mainsail or all sails. Start for shore in time. Don't be caught out at the last moment.
- v. ***Keep a good lookout*** - obey this old naval adage – the whole crew is responsible for avoiding collisions – with other boats, buoys, reefs and debris.
- vi. ***Know your waters*** - proceed with the utmost caution in unknown or dubious waters.
- vii. ***Keep your boat's gear in shape*** - check the halyards and sheets, watch for soundness of the hull and ensure your sails are in good repair. Inspect the gear after return and report or repair any faults then.
- viii. ***Do not overload the boat*** - don't take any more crew than the boat is designed for. A crowded boat is dangerous in an emergency.
- ix. ***Take your safety gear*** - a bailer and paddles and some spare rope or line are essential items.
- x. ***Wear your PFD*** - ensure each person in the boat is wearing a PFD that is properly secured. It is too late once you capsize.

- xi. ***Know the Rules of the Road*** - know your sailing rules. The coxswain is responsible for training the crew in the Rules of the Road as he proceeds.
 - xii. ***Stay Safe*** - don't be talked into going out or being a coxswain if you think that it is not safe. The lives you risk include your own.
 - xiii. ***Come in at sunset*** - an accident that might be minor in daylight can be fatal after dark.
 - xiv. ***Learn and practice the capsize drill*** - do this to ensure you can get your boat back upright readily and safely. It's too late to learn when you actually capsize.
43. Cadets shall be familiar with the Sailing Safety Code before they are permitted to use sailboats.

CHAPTER 4

POWER BOAT SAFETY ORDERS

GENERAL

1. These orders shall apply to all power vessels used for cadet training regardless of ownership of the vessels.
2. For the purpose of these orders, a sailboat under auxiliary power shall be considered a powerboat.
3. This section applies to the general operation of powerboats in cadet training.

INHERENT FLOTATION

4. All powerboats 6m (19.5 ft) or less used for cadet training shall have inherent flotation permitting them, while equipped with motor, to remain afloat when capsized or completely full of water.
5. Where practicable, flotation should be tested by trial immersion (substituting a suitable weight for the motor), prior to the start of sailing activities for the year and again on any occasion when a boat has received damage that might interfere with the effectiveness of the flotation. When trial immersion is not practicable, flotation should be checked by the most effective practicable method.

OVERPOWERING & OVERLOADING

6. All outboard powerboats 6m (19.5 ft) or less in length used for cadet training shall carry a Transport Canada plate listing the recommended maximum engine power and load. These limits shall not be exceeded on any occasion.
7. What is considered a safe load in calm water may be dangerous in heavier weather. In adverse conditions, reduce the number of people in the boat. *DO NOT OVERLOAD.*

LICENSING REQUIREMENTS OF THE SMALL VESSEL

8. Every vessel less than 15 tons gross equipped with a motor, or motors, of 7.5 kilowatt (10 HP) or more must be licensed. Licenses are provided free on request from the nearest Customs House. Before the vessel is operated, the license number issued must be marked in block characters, not less than 75mm (3 inches) high and in a colour which contrasts with the background, on each side of the vessel as close to the bow as practicable. The number should be clearly visible from each side.

SPECIAL VESSELS

9. Power driven racing type vessels, when engaged in formal training, in an official competition or in final preparation for an official competition that is operated under

conditions of clear visibility and attended by a safety boat, may carry, in lieu of the equipment prescribed elsewhere in this Chapter, the safety equipment that is required under the rules of the applicable governing body.

CAPACITY PLATES

10. The law requires every pleasure boat 6m (19.5 ft) or less in length, powered with an outboard motor or motors totalling 7.5 kilowatts (10 hp) or more, to carry a plate issued by Transport Canada stating the recommended maximum load and engine power. The requirement should not be confused with the licensing of vessels as described in detail in paragraph 8 of this Chapter.

11. Applications for capacity plates can be obtained from any Customs or Ship Safety office or from the Coast Guard headquarters in Ottawa. Complete all particulars, ensuring that precise measurements are entered in all of the spaces provided. Enclose it in the envelope provided along with a cheque or money order made out to the Receiver General of Canada.

POWERBOAT OPERATOR LICENSE

12. The *Competency of Operators of Pleasure Craft Regulations* require operators of pleasure craft to have proof of competency on board at all times. This is, essentially, a “driver’s license” for boaters and is required by law.

13. The requirement for this license is as follows:

Required By	Effective Date
All operators born after April 1, 1983	September 15 1999
All operators of craft under 4m in length, including personal watercraft.	September 15 2002
All operators	September 15 2009

14. Proof is provided by the presentation of an Operator Card. Operator Cards are good-for-life and may be obtained after receiving a mark of 75% or better on a Canadian Coast Guard accredited test following the completion of an accredited course.

ENFORCEMENT OF THE LAW

15. Under the *Contraventions Act*, enforcement authorities can ticket offenders on the spot instead of requiring them to appear in court. Tickets can be issued for license offences as well as other contraventions to equipment requirements, speed limits and careless operation.

AGE-HORSEPOWER RESTRICTIONS

16. These restrictions are regulated by the Canadian Coast Guard and are enforced by law. The following restrictions apply:

Applies to:	Power Restrictions
Under 12 years of age and not directly supervised	Can operate a vessel with no more than 10 hp (7.5kw)
Between 12 and 16 years of age, and not directly supervised	Can operate a vessel with no more than 40 hp (30kw)
Under 16 years of age	Not permitted to operate a Personal Watercraft
16 years of age and over	No power restrictions

17. The term “*directly supervised*” as used in this regulation means accompanied and directly supervised in the boat by a person 16 years of age or older.

SAFETY BOAT OPERATOR

18. *The operator of a safety boat shall possess an Operators Card for powerboat operation and be at least 16 years of age.* Additional training may be required for specialized safety boat commitments for sailing and canoeing events.

19. All safety boat operators must be approved by the Boats Officer for operation of the type of boat in question.

20. For larger power vessels, special qualification standards and approval requirements may be imposed.

SAFE FUELLING PRACTICES

21. All persons operating or fuelling powerboats used by or for cadets shall be familiar with and follow the safe fuelling practices detailed below. There is a good and valid reason for each of the following points. The conscientious boat operator will deliberately check the routine in his/her mind as he/she prepares to fuel:

- i. ***Boat is securely moored*** - you will be in an awkward spot, straddling the dock and deck in one hand with gas can in the other, if the boat starts to move;
- ii. ***All personnel ashore*** - if trouble develops you will not have to worry about passengers;
- iii. ***No Smoking*** - do not be afraid to ensure that other people near you are not smoking;

- iv. **Take portable tanks ashore;**
- v. **Hatches and doors are closed** - if there are any fumes they will not go inboard.
- vi. **No electrical switching** - switches sometimes produce sparks;
- vii. **Extinguish all open flames** - check to ensure your pilot light is out on the stove or fridge if equipped;
- viii. **Dip (sound) tanks or check gauges** - determine capacity to prevent overfilling.
- ix. **Check the fuel - gasoline or diesel? – mixed or straight** - check at the nozzle before you start;
- x. **Hold nozzle firmly against deck plate;**
- xi. **Take fuel at correct rate** - do not overtax the filler pipes and vents.
- xii. **Take predetermined quantity** - do not fill until fuel runs over.
- xiii. **Replace deck plate covers;**
- xiv. **Wipe up any spillage** - use a paper towel rather than a rag, then put it in the disposal located on the wharf;
- xv. **Open up and Ventilate** - use bilge blower if you have one;
- xvi. **Test for vapour** - use a sniffer or your nose;
- xvii. **Start engines;**
- xviii. **Re-embark personnel; and**
- xix. **Cast off.**

22. The reminder at sub paragraph (ix) is not offered as jest. *If you burn the incorrect fuel the results can be catastrophic.* Trust no one but yourself to ensure you are taking on the correct fuel.

23. All operators should have this routine, or a similar drill, firmly in their minds. Cleanliness is a powerful weapon against fire. Bilges should be kept clean and should be inspected before starting; *if any doubt exists, do not start.* A clean boat seldom burns.

24. Fuel fires are boating's greatest hazard. They are easy to prevent but hard to extinguish and can do irreparable damage. Do not let them have a chance to start. Knowledge and care are your defence.

POWERBOAT SAFETY CODE

25. The powerboat safety code shall be familiar to all cadets before they are permitted to operate powerboats. Printed below, is a brief summary of the “do’s and don’ts” of power boat safety:

“DO”

- Head for the nearest safe anchorage or landing when a storm threatens and avoid the temptation to buck it;
- Obey the regulations regarding lifesaving equipment, using only that stamped or labelled “approved” by Transport Canada;
- Assist any boat in distress. The vertical circular waving motions of a piece of light coloured material or a light at night are two of many distinctive distress signals;

- Slow down when passing dredges, anchorages, marinas or water where divers may be working;
- Slow down when making sharp turns or in bad weather;
- Slow down when passing rowboats and canoes, especially in narrow waters;
- Learn the *RULES OF THE ROAD* and practice them;
- When operating at night, carry a few red flares in a watertight container (Red flares used in railroads are efficient and inexpensive);
- Keep the bilges of the boat clean and free of oil, gasoline and rags. Vent any enclosed areas into the open air;
- Check the battery and its ventilation;
- Respect your boat and know its limitations;
- Obey the regulations regarding fire precautions and fire extinguishing equipment;
- Carry an anchor and a sufficient length of sound cable, rope or chain – at least five times the average anchorage depth. Be sure that the inboard end of the line is fastened securely to the boat;
- Wear a lifejacket or PFD in a small boat, whether or not lifesaving cushions are carried;
- When on an extended cruise, carry the latest corrected charts and related publications in your boat at all times; and
- Keep spare clothing plus a flashlight, knife, first aid kit and emergency rations in a watertight plastic bag.

“DON’T”

- Stand up or change seats in a small boat, particularly when it is fully loaded. If it is necessary to move, crouch low and keep the weight on the boat’s centreline, holding onto both gunwales;
- Stand up when starting an outboard motor;
- Operate near swimmers;
- Mix liquor and boating;
- Use a leaky or poorly built boat;
- Cruise fast enough to create a dangerous swell when near small boats;
- Leave your tiller or steering wheel unattended when underway, especially in harbours, anchorages or narrow channels;
- Throw garbage overboard;
- Sound your horn or use the spotlight unnecessarily;
- Wait until the last minute to signal your intentions of obeying the *Rules of the Road*;
- Anchor too close to other boats;
- Cruise at high speeds in an anchorage;
- Hold impromptu races with other boats, because other small boats are endangered by the wash;
- Attempt to swim ashore if your boat capsizes or is swamped; DO hang onto the boat until you are picked up;
- Be a show-off;

- Buzz swimming beaches; swimmers are hard to see in the water;
- Carry out-dated charts and related publications in your boat;
- Create an excessive wake. This can endanger others in the vicinity and also cause bank erosion or property damage; and,
- Water ski without an extra person to watch the skier. Don't water ski after dark.

WIND AND WEATHER

26. It is not possible to detail precise rules to govern sailing safety under all conditions and in all locations. In deciding whether to permit sailing, consider the following factors:
- i. wind velocity;
 - ii. the type(s) of boats in use;
 - iii. experience and skills of the crew;
 - iv. water and air temperature;
 - v. degree of protection of sailing area;
 - vi. known local conditions of weather and wave action; and,
 - vii. marine weather forecast (this should always be checked).

WATER SKIING

27. Cadets, while water skiing or preparing to do so, may wear ski-type lifejackets, since the approved PFD may be hazardous in a high-speed fall. Cadets in a water skiing towboat, not preparing to ski, shall wear an approved PFD.
28. While a powerboat is being used to tow a water skier, there shall be not less than two persons in the boat: the operator and a "safety person" to watch the skier.
29. No water skiing shall be conducted between sunset and sunrise.
30. Ski boat operators shall avoid the following dangerous practices:
- towing the skier across the path of another boat;
 - cracking the whip (too tight turns designed to make the skier fall);
 - towing a skier across the line of the general traffic flow on the water.

HAZARDOUS OPERATION

31. Operators of powerboats shall avoid creating a wake that may be hazardous to smaller boats, canoes or anchored boats. In general, boats should slow down to avoid wake. Planing boats should mind their speed and wash in harbour and other confined areas.
32. Powerboats shall be operated at a safe speed for the conditions and size of the boat, bearing in mind such factors as the width of the channels and the presence or absence of other water traffic. Speed shall be reduced in adverse weather conditions, in conditions of restricted visibility, in heavy traffic areas and in the vicinity of swimmers. All speed limits shall be obeyed.

33. Horseplay in powerboats is forbidden under all circumstances. It is a form of showing off which has no place in cadet operations and is extremely dangerous. Any incident of horseplay by a powerboat operator shall be occasion for disciplinary action. If it is flagrant or repeated, the offender shall lose the privilege of operating a powerboat.

34. Operation of a power vessel by an operator who has consumed alcohol or drugs is absolutely prohibited.

35. Reckless or impaired operation of a vessel is an indictable offence under the Criminal Code of Canada.

CHAPTER 5

ROWING SAFETY ORDERS

GENERAL

1. These orders shall apply to all vessels propelled by oars and used for cadet training regardless of the ownership of the vessels.
2. For the purpose of these orders, a vessel usually propelled by sail or power shall be considered a rowing boat while under oars (eg. whalers and cutters).
3. Overloading is dangerous and should not be permitted. While it is not possible to give specific loads for all boats under all conditions, the following may be used as a rough guide under normal conditions:

Length of Boat	Number of Persons	Maximum Weight
3m (10 ft)	2	181 kg (400 lb)
3.7m (12 ft)	3	260kg (572lb)
4m (13 ft)	4	336kg (740lb)
5m (16 ft)	5	440kg (968lb)

In rough water conditions, one less person in the boat is advisable.

EQUIPMENT REQUIREMENTS

4. Rowing boats 6m (19.5 ft) or less in length shall carry:
 - i. one Canadian approved Personal Flotation Device (PFD) per person on board;
 - ii. one buoyant heaving line of not less than 15m in length;
 - iii. one spare manual propelling device **or** an anchor with not less than 15m of cable, rope or chain in any combination;
 - iv. one bailer **or** one manual pump with hose;
 - v. one sound signalling device or appliance; and
 - vi. navigation lights that meet the applicable standards set out in the *Collision Regulations*, **if** the boat is operated after sunset and before sunrise or in periods of restricted visibility.
5. Rowing boats greater than 6m (19.5 ft) in length must comply with the same equipment requirements as powerboats of the same length – see Chapter 4.

WEARING OF FLOTATION DEVICES

6. PFDs shall be worn at all times by all personnel embarked in a rowing boat 6m (19.5 ft) or less in length. In rowing boats greater than 6m (19.5 ft) in length, all personnel shall wear a PFD while underway, but may remove them when the boat is moored.

CHAPTER 6

CANOEING SAFETY ORDERS

GENERAL

1. These orders shall apply to all canoes and kayaks used for cadet training regardless of ownership.
2. In this chapter, the words “canoe” and “canoeing” shall be taken to include the operation of canoes, kayaks and inflatable rafts. Clearance for canoeing activities shall be obtained from the local Branch President – The Navy League of Canada thru the Navy League Cadet Commanding Officer.

INSTRUCTOR QUALIFICATIONS

3. In this activity there are national standards for instructors; consequently, training must be conducted under the supervision of personnel possessing at least one of the following qualifications for the subject and level taught:

BASIC CANOEING
1. Canadian Red Cross (CRC) Small Craft Instructor – Canoeing 1 and 2; Rowing 1, 2, 3; and Power Boating Level 1.
2. Canadian Recreational Canoeing Association – CRCA. Leader III.
3. Canadian Camping Association (CCA) Certified Instructor.

ADVANCED WHITEWATER CANOEING AND KAYAKING
1. CRCS – Leader III (Open Canoe).
2. CCA – Certified Instructor.
3. Canadian White-water Association (CWA) – Closed Canoe Leader III and Kayak Leader III.

4. Instructor Personnel can usually be located through the following local agencies/affiliated clubs:
 - Canadian Red Cross Water Safety Service;
 - Canadian Recreational Canoeing Association;
 - Canadian Canoe Association;
 - Canadian Whitewater Association;
 - Federation Quebecoise de Canot-Kayak Camping;
 - Canadian Camping Association;
 - YM/YWCA;
 - RCMP/Provincial Police/Canadian Coast Guard Detachments devoted mainly to the enforcement of water safety regulations; they usually know civilian personnel who are qualified in this activity; and
 - Provincial Clubs – these may be located by referring to the Associations and Societies section of the Corpus Almanac of Canada.

EQUIPMENT REQUIREMENTS

5. Cadet Personal Flotation Devices are to be used by all personnel involved in on-water training activities.
6. Helmets are recommended at all times but are mandatory when operating beyond Class I river conditions or on the ocean (lake) adjacent to rocky coasts. The Cooper SK 600 (or replacement model) is recommended because the size is easily adjusted. Colours are red or yellow.
7. As there are many canoes available, it is not possible to stipulate acceptable vessels by manufacturer and model number. Canoes used for cadet training must meet the following minimum standard:
 - they must possess inherent buoyancy. Where buoyancy is achieved by air chambers on older canoes, this space can be filled with a buoyant material (Styrofoam). Civilian firms will undertake this retrofit or it may be accomplished on a self-help basis;
 - they must be certified by qualified personnel as safe for the anticipated water conditions.
8. Canoes and Kayaks 6m (19.5 ft) or less in length shall carry:
 - i. one Canadian approved Personal Flotation Device for each person on board;
 - ii. one buoyant heaving line of not less than 15m in length;
 - iii. one spare manual propelling device **or** one anchor with not less than 15m of cable, rope or chain in any combination;
 - iv. one bailer **or** one manual pump with hose;
 - v. one sound signalling device or appliance; and
 - vi. navigation lights that meet the standard set out in the *Collision Regulations* if the vessel is to be operated after sunset and before sunrise or in periods of restricted visibility.
9. Canoes should also be equipped with:
 - i. 6m (19.5 ft) painters (end lines) rigged fore and aft;
 - ii. sponges for bailing.
10. Kayaks must have flotation bags and spray skirts. A wet suit is recommended when water temperature is under 10C (50F).
11. Rafts/Assault boats must be constructed of rugged rubberised fabric and must contain more than one independent flotation chamber.

SAFETY BOAT

12. All safety boats must comply with the equipment requirements of the Small Vessel Regulations (Chapter 4).

13. Rescue/Survival Stores - the safety boat should be equipped with the following rescue/survival stores:

- i. one rescue line – 15 to 30m (50 to 100 ft) in length;
- ii. one boat hook;
- iii. additional PFDs;
- iv. one rescue ladder;
- v. extra dry clothing and sleeping bags;
- vi. first aid kit and resuscitators;
- vii. radio, if radio frequency in use;
- viii. anchor; and
- ix. tool box and fire extinguisher.

FOOTWEAR

14. Long rubber (gum) boots must *NOT* be worn because of the dangerous drag effect if the boat capsizes. In addition, sandals are *NOT* acceptable to be worn while on the water due to the lack of the protection they provide.

15. Canoeists must wear light footwear (runners) to prevent injury to the feet. Boots also may be required if long or difficult portages are involved.

CONTINGENCY PLAN

16. Leaders of any canoeing exercise should have a contingency plan, which should include the following:

- i. location and telephone numbers of local rescue service, ambulance, etc.;
- ii. personnel trained in first aid, artificial respiration and hypothermia defence (rain gear, expedient shelters);
- iii. rescue and evacuation procedures;
- iv. safety organisation – qualified helmsman, safety boat and equipment; and;
- v. emergency signals and appropriate actions.

GENERAL SAFETY CONSIDERATIONS

17. The following points must be considered prior to and during any canoeing activity:

- i. ensure there are qualified leaders/instructors;
- ii. ensure there are proper woollen clothing, equipment and rations (quick energy snacks);
- iii. be aware of group physical fitness (MEDIC Alert, allergies, sensitivity to stings etc.);
- iv. consider group capability and experience including swimming ability. If non-swimmers are included, they must be pre-tested in a pool wearing a PFD to demonstrate that they will not panic if inadvertently immersed. (The CRC Survival Swimmer's Course is highly recommended.) Non-swimmers must be identified and teamed with strong swimmers;
- v. conduct periodic roll call and physical condition checks;
- vi. conduct pre-exercise instruction and practices;

- vii. conduct a personal reconnaissance (recce) of the waterway if possible. If not possible, conduct a map recce. Consult local authorities concerning hazards and issue instructions on the action to be taken to avoid or negotiate them;
- viii. check the weather forecast. Heavy rains may increase water hazards dramatically;
- ix. check PFD serviceability and fit; and
- x. review the safety code with all participants. Ensure it is understood.

CANOEING AND EQUIPMENT

18. The following list shall be considered prior to the start of any canoeing activity:
- i. be sure craft is in good repair before starting a trip. Eliminate sharp projections that could cause injury during a swim;
 - ii. inflatable craft should have multiple air chambers and should be test-inflated before starting a trip;
 - iii. have strong, adequately sized paddles or oars for controlling the craft and carry sufficient spares for the length of the trip;
 - iv. install flotation devices in non-inflatable craft. These should be securely fixed and designed to displace as much water from the craft as possible;
 - v. be certain there is absolutely nothing to cause entanglement when coming free from an upset craft, ie. A spray skirt that will not release or tangles around the legs, lifejacket buckles or clothing that might snag, canoe seats that lock on shoe heels, foot braces that fail or allow feet to jam under them, flexible decks that collapse on boater's legs when a kayak is trapped by water pressure, baggage that dangles in an upset, loose rope in the craft or badly secured bow/stern lines;
 - vi. Provide ropes for the crew to hold on to if the craft upsets, and so that it may be rescued. The recommended methods are:
 - a. kayaks and covered canoes should have 15cm (6 inch) diameter grab loops of 6mm(1/4 inch) rope attached to bow and stern. A stern painter 2 to 2 1/2m (7 or 8 feet) long is optional and may be used if secured properly to prevent entanglement;
 - b. open canoes should have bow and stern lines (painters) securely attached consisting of 6m (19.5 ft) rope. These lines must be secured in such a way that they will not come loose accidentally and entangle the boaters during a swim, yet they must be ready for immediate use during an emergency. Attached balls, floats and knots are not recommended.

LEADER'S PREPAREDNESS AND RESPONSIBILITY

19. Have a reasonable knowledge of the difficult parts of the run or, if it is an exploratory trip, examine maps to estimate the feasibility of the run. Be aware of possible changes in the river level and how these changes affect the difficulty of the run. If important, determine approximate flow rate or level. If trip involves tidal currents, secure tide information.
20. Inform participants of expected river conditions and determine if the prospective boaters are qualified for the trip. All decisions should be based on group safety and comfort.

Difficult decisions on the participation of marginal boaters must be based on total group strength.

21. Take all necessary group equipment on the trip: a 15 to 30m (50 to 100 ft) rope, first aid kit with fresh and adequate supplies, extra paddles, repair materials and survival equipment if appropriate. Check equipment as necessary at the put in, especially lifejackets, boat flotation and any items that could prevent complete escape from the boat in case of an upset.

22. Remind each member of individual responsibility in keeping the group compact and intact between leader and sweep (capable rear boater). If the group is too large, divide into smaller groups, each of appropriate boating strength, and designate group leaders and sweeps.

23. If the trip is into a wilderness area or for an extended period, your plans should be filed with appropriate authorities or left with someone who will contact them after a certain time. Consider establishing checkpoints along the way from which people could be contacted. Knowing the location of possible help could speed rescue in any case.

IN CASE OF UPSET

24. Evacuate your boat immediately if there is imminent danger of being trapped against a log, brush or any other form of strainer, then;
- i. recover with an Eskimo Roll if possible;
 - ii. if you swim, hold on to your craft. It has much flotation and is easy for rescuers to spot. Get to the upstream end so the craft cannot crush you against obstacles;
 - iii. release your craft if this improves your safety. If rescue is not imminent and water is numbingly cold, or if worse rapids follow, strike out for the nearest shore;
 - iv. extend your feet downstream when swimming rapids to fend against rocks. Look ahead. Avoid possible entrapment situations: rock ledges, fissures, strainers, brush, logs, weirs, reversals and souse holes. Watch eddies and slack water so that you can be ready to use these when you approach. Use every opportunity to work towards shore. The Red Cross recommends that you should never stand up in fast moving current or in a chute unless the water is too shallow for swimming. Try to get into an eddy or slow moving water before standing up;
 - v. if others spill, go after the boaters. Rescue boats and equipment only if this can be done safely.

SCALE OF RIVER DIFFICULTY

25. Waterways may be described in accordance with the International Scale of River Difficulty, as detailed on the following page.

INTERNATIONAL SCALE OF RIVER DIFFICULTY

CLASS	DESCRIPTION
I	Moving water with a few ripples and small waves. Few or no obstructions.
II	Easy rapids with waves up to 90cm (3 ft) and wide, clear channels that are obvious without scouting. Some manoeuvring is required.
III	Rapids with high, irregular waves often capable of swamping an open canoe. Narrow passages that often require complex manoeuvring. May require scouting from the shore.
IV	Long, difficult rapids with constricted passages that often require precise manoeuvring in very turbulent waters. Scouting from shore is often necessary, and conditions make rescue difficult. Generally not possible for open canoes. Boaters in covered canoes and kayaks should be able to Eskimo Roll.
V	Extremely difficult, long, and very violent rapids with highly congested routes which nearly always must be scouted from shore. Rescue conditions are difficult and there is significant hazard to life in event of a mishap. Ability to Eskimo Roll is essential for kayaks and canoes.
VI	Difficulties of Class V carried to the extreme of navigability. Nearly impossible and very dangerous. For teams and experts ONLY, after close study and with all precautions taken.

NOTE:

If rapids on a river generally fit into one of the classifications listed above, but the water temperature is below 10C, or if the trip is an extended trip in a wilderness area, the river should be considered one class more difficult.

CHAPTER 7

RULES OF THE ROAD & ONBOARD LIGHTS

GENERAL

1. All boats are required to operate as required by the *Collision Regulations*, including the use of lights at night and in restricted visibility. These regulations are detailed and lengthy and should be examined by operators prior to using a boat. This chapter summarises the more commonly applicable regulations for the operation of small vessels.
2. The Collision Regulations, Small Vessel Regulations, The Safe Boating Guide and other important safety publications are available online at the Canadian Coast Guard website: www.ccg-gcc.gc.ca

THE COLLISION REGULATIONS

3. The Rules of the Road are officially known as the *International Rules for Preventing Collisions at Sea*, referred to as the *Collision Regulations* and consist of two distinct sets of regulations in Canada:
 - i. These rules apply on Lakes Ontario, Erie, Huron (including Georgian Bay), Michigan and Superior, their connecting and tributary waters, and the Ottawa and St. Lawrence Rivers and their tributaries as far east as, but not including, the Port of Montreal; and
 - ii. These Regulations include the International Regulations for the Preventing Collisions at Sea with special provisions (Canadian Modifications) for Canadian Waters.
4. Copies of the *Collision Regulations* can be purchased from the Department of Supply and Services Publishing Centre in Ottawa or from authorised bookstores in your local area.

SMALL VESSELS

5. For the purposes of the Boating Safety Guide, small vessels include:
 - i. motorboats of not more than 20m (65 ft) in length measured from end to end over the deck excluding sheer;
 - ii. sailboats not over 20m (65 ft) in length;
 - iii. open boats and vessels under oars;
 - iv. canoes and kayaks;
 - v. sailboards; and,
 - vi. personal watercraft.

RULES OF THE ROAD

(SAIL & POWER)

SECTION 1 - SAIL VESSELS

6. A vessel on a port tack shall keep clear of a vessel on a starboard tack (opposite tack rule).

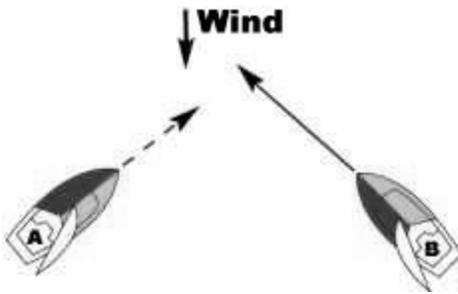


Fig 7.1 – A (port tack) keeps clear of B.

7. A windward vessel shall keep clear of a leeward vessel (same tack rule).

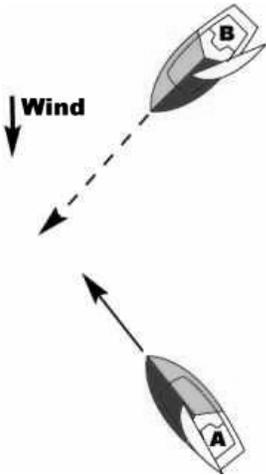


Fig 7.2 – B (windward) keeps clear of A.

8. A vessel clear astern shall keep clear of a vessel clear ahead. Any vessel overtaking another must keep clear.

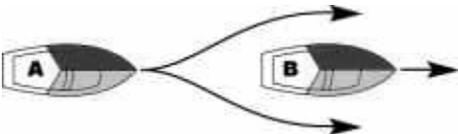


Fig 7.3 – A (overtaking) keeps clear of B.

9. A vessel tacking or gybing shall keep clear of a vessel on a tack.
10. When two vessels are both tacking (and both gybing) at the same time, the one on the others port side shall keep clear. The vessel to starboard has the right of way.
11. A vessel underway shall keep clear of a vessel that is anchored.
12. Of two vessels anchored, the one that anchored later shall keep clear, except that a vessel that is dragging shall keep clear of one that is not.
13. A power driven vessel shall keep clear of a vessel under sail or oars. A sailboat using both power and sails is considered a power driven vessel.

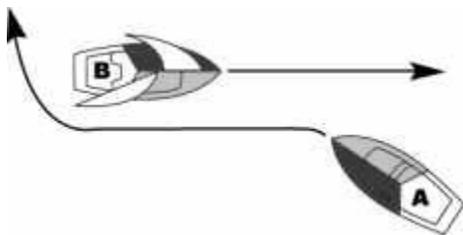


Fig 7.4 – A (power driven) keeps clear of B (Sailing).

14. Obligation of Commercial Vessels - In a narrow channel or confined area a sailing vessel must not hamper the safe passage of a power driven vessel which can navigate only inside such channel or area. Keep clear of large vessels in a channel or harbour.

SECTION 2 - POWER VESSELS

“Stand On” and “Give Way”

15. Except in “head-on” meetings (when both must alter course), in all situations where two boats of any size or type encounter one another so as to involve a risk of collision, one of the two has the “*right of way*” and the other must “*keep clear*”. The boat having the right of way is known as the STAND ON vessel, which means she is obliged to maintain her course and speed. This makes her actions predictable and the other vessel can reckon thereon. The boat that is required to keep clear (not having the right of way) is the GIVE WAY vessel, which means she must reduce speed, stop, alter course or reverse engines so as to keep clear of the stand on vessel. Thus each boat has an obligation. In addition, each vessel must maintain a sharp lookout and exercise every precaution dictated by the practice of good seamanship. If a collision still seems imminent, both boats shall take any action necessary to avoid it.

16. Small vessel operators must appreciate the lesser manoeuvrability of larger vessels. They are slow in turning and slow to stop. Once committed to a course of action in confined waters, they cannot turn back or alter plans. Some common sense and courtesy

can be used, provided intent is made clear, and made in good time. If a small boat is the stand on vessel but decides to be courteous by giving way to a large ferry on a schedule, the intent to do so *must be made early and must be clearly indicated by a bold alteration of course or speed*. In a narrow channel, a small vessel of less than 20m (65 ft) in length shall not hamper the safe passage of a vessel that can navigate only inside such a channel.

Power Meets Power “Head on”.

17. As on the highway, the general rule is to “keep to the right”. In narrow channels, boats keep towards the starboard side. *In meeting situations where a collision is possible, each boat shall alter course to starboard.* This results in a “red to red” meeting (each vessel has the other on her port, or red, side).

18. It should be noted that some meetings may occur in which the vessels are not in risk of collision but will pass “green to green”, that is to say - down the starboard side of each other. If no risk of collision exists, *do not* alter course to cause a “red to red” meeting. This would cause one or both boats to cross the bows of the other and create a risk of collision in doing so.

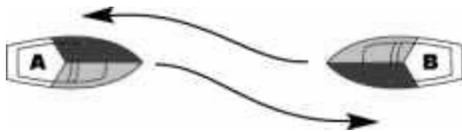


Fig 7.5 – Head On Meeting – Each vessel alters to Starboard

Power Meets Power - Crossing Situation.

19. Vessels are on a crossing course when they are approaching each other at right angles or obliquely other than when one vessel is overtaking another. The vessel with the other on her starboard side is the GIVE WAY vessel (if you see a vessel to your starboard you must give way) and must alter course to starboard and keep clear of the other vessel (by passing astern of her). The other vessel is the STAND ON vessel and must maintain course and speed.

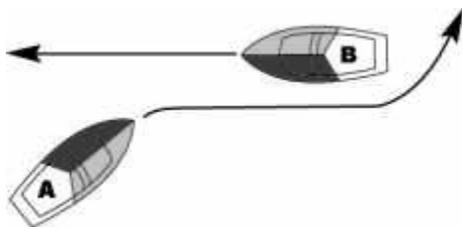


Fig 7.6 – A (give way) keeps clear of B.

Power Meets Power - Overtaking.

20. The overtaking boat is required to keep clear; she is the GIVE WAY vessel. The boat being overtaken is the STAND ON vessel and must maintain her course and speed. A vessel is overtaking another when she approaches from astern, anywhere in the arc of the stern light (see The Danger Zone - Fig. 7.7). The overtaking rule applies to all vessels, including sail, except that a small vessel shall not hamper large vessels in narrow passages.

21. The STAND ON and GIVE WAY vessels must be identified at the start of each situation and then the GIVE WAY vessel must keep clear until all danger of collision is passed. At the same time the STAND ON vessel must maintain course and speed until the other vessel is well and clear away.

POWER ENCOUNTERING SAIL AND OARS

22. Except in the overtaking situation and in narrow channels, Power driven vessels shall keep clear of sailing vessels and vessels propelled by oars or paddles. Sail STANDS ON and power GIVES WAY. This rule does not give a sailing vessel the right to hamper a power driven vessel involved in the negotiation of a narrow channel. Otherwise, a sailboat need keep clear of a powerboat only in overtaking situations or (in international waters) if it is a powered vessel engaged in fishing. A sailboat under power with her sails either furled or set is considered a power driven vessel.

THE DANGER ZONE

23. It can be seen that generally speaking, the vessel on the starboard side has the right of way, as on the highway. This gives rise to the expression, DANGER ZONE. Your danger zone is from dead ahead to slightly abaft your starboard beam and is the same arc as your starboard light. You must give way to vessels in this zone. Thus the vessel with right of way will see your green light and you will see her red light - she "has your green light" (to go ahead) and you "have her red light" (to stop or alter away).

SOUND SIGNALS

24. While there are some differences in sound signals between the International Rules and the Great Lakes Rules, the common sound signals used are:

- i. One short blast means, "I am altering course to starboard";
- ii. two short blasts means "I am altering course to port";
- iii. three short blasts means "I am operating astern propulsion";
- iv. five or more short blasts is the emergency or danger signal meaning "I do not understand your intentions" or "Wake up!"

SECTION 3 – LIGHTS AT NIGHT

GENERAL

25. Although this section is entitled “Lights at Night”, the *Collision Regulations* require navigation Lights to be used both at night and in periods of restricted visibility (fog, heavy rain, snow etc).

26. The *port* sidelight shall be *red*. The *starboard* sidelight shall be *green*. The *stern* light shall be *white*. The *masthead* light shall be *white* unless specifically detailed otherwise.

27. Small vessels are required by the regulations to exhibit the appropriate navigations lights between sunset and sunrise.

SAILING VESSELS

28. Sailing vessels 20m (65 ft) or less in length shall carry:
- i. side lights;
 - ii. a stern light; and/or
 - iii. an all-round red light over an all-round green light at the masthead with sidelights and a stern light; and/or
 - iv. a single combined lantern at the top of the mast showing the sidelights and stern light.

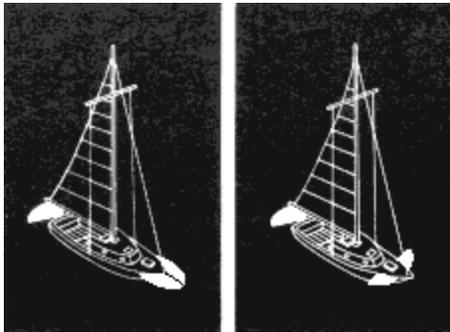


Fig 7.8 – Sailing Vessel

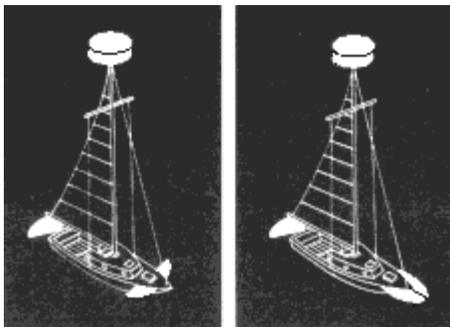


Fig 7.9 – Sailing Vessel with Red over Green Masthead Lights

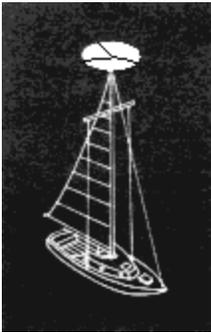


Fig 7.10 – Sailing Vessel with Combined Lantern at Masthead

29. Sailing vessels less than 6m (19.5 ft) shall, if practicable, exhibit the lights described above and if not shall have ready at hand a flashlight or lantern showing a white light which shall be exhibited in time to prevent a collision. See Fig 7.13.

POWER DRIVEN VESSELS

30. A power-driven vessel less than 50m (164 ft) while underway shall exhibit:
- i. a masthead light forward;
 - ii. side lights, and
 - iii. a stern light



Fig 7.11 – Power Driven Vessel

31. A power-driven vessel less than 12 m (39 ft) in length may in lieu of the lights described above, exhibit an all-round white light and sidelights.

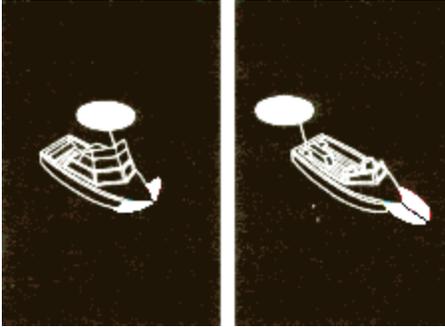


Fig 7.12 – Power Vessel Less Than 12m

32. A power-driven vessel of less than 7m (23 ft) in length whose maximum speed does not exceed 7 knots, in **international waters only**, may in lieu of the lights described, exhibit an all-round white light and shall, if practicable, also exhibit sidelights.

ANCHORED VESSELS

33. Vessels 50m or less in length shall display an all-round white light when at anchor.

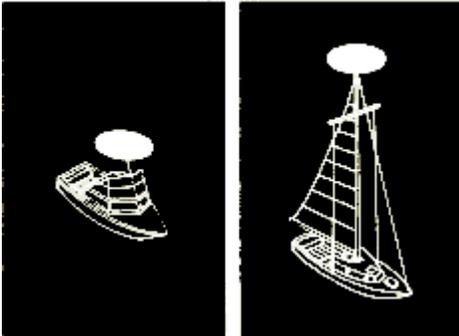


Fig 7.14 – Vessel at Anchor

34. Any vessel approaching in the “white sector” (your stern light is white) may be overtaking, in which case you maintain your course and speed. If you are approaching a vessel in her “white sector” (the arc of her stern light) then you may be overtaking and must stay clear of her.

35. Vessels under 26 feet in length are not required to make sound signals BUT they must manoeuvre so as to prevent any misunderstanding as to their intentions.

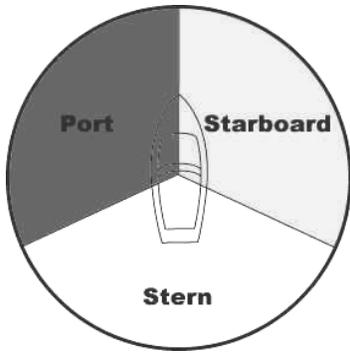


Fig 7.7 – Danger Zone to Starboard and Overtaking Zone Astern.