

ASHORE KNOWLEDGE:

Requirements towards achieving Basic Cruising (Day Skipper – Sail)

| Performance Objectives 1,2, & 3 Identify and Describe: | | |
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| 1 Hull and keel | 14 Shrouds, stays | 26 Boom vang |
| 2 Cunningham | 15 Breast lines | 27 Topping lift |
| 3 Stern, bow, beam | 16 Fenders | 28 Shackles, fairleads |
| 4 Rudder , tiller | 17 Chain plates | 29 Cleats, winches |
| 5 Cabin, deck | 18 Cockpit | 30 Pulpit, pushpit |
| 6 Bow, beam, stern | 19 Lifelines | 31 Head, tack & clew |
| 7 Keel | 20 Mast, boom | 32 Luff, foot & leech |
| 8 Outhaul | 21 Spreader | 33 Battens, hanks & slides |
| 9 Standing rigging | 22 Tangs, turnbuckles | 34 Cringles, reef points |
| 10 Tiller | 23 Running Rigging | 35 Sheets, halyards |
| 11 Pintle | 24 Reefing systems | 36 Tell tales |
| 12 Gudgeons | 25 Telltales | 37 Spring lines |
| 13 Companionway | | 38 Gooseneck |

| IDENTIFY POINTS OF SAIL: (P.O. #3) |
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| 1 Close Reach |
| 2 Broad Reach |
| 3 Close Haul |
| 4 Beam Reach |
| 5 Running |
| 6 Sailing by the Lee |
| 7 Head to Wind |
| 8 Starboard Tack |
| 9 Port Tack |
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| IDENTIFY: |
| 1 Same tack |
| 2 Opposite tack |
| 3 Windward |
| 4 Leeward |

IDENTIFY LOCATIONS ON A SAILBOAT:

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| 1 | Ahead |
| 2 | Aft of the Cabin |
| 3 | Abeam |
| 4 | Forward of the Cabin |
| 5 | Astern |
| 6 | Port Side |
| 7 | Starboard Side |

Performance Objective 4**SAFE BOATING GUIDE – TC REQUIRED ITEMS (6 TO 10 METRES)**

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| 1 | PFD | CCG approved / fits each crew |
| 2 | Manual Bilge Pump | Ensure it works / Long enough hose |
| 3 | Flares | Proper number / knowledge of use / correct age |
| 4 | Navigation lights | Verify they work / Know how to turn on |
| 5 | Anchor & rode | Proper length/ rode in good shape / secured to vessel |

SMALL VESSEL REGULATIONS -**SAFETY EQUIPMENT REQUIRED FOR 6 to 10 METRE VESSEL**

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|---|------------------------------|----|-----------------------------|
| 1 | PFD which fits | 7 | Six Flares (A,B, or C) |
| 2 | Reboarding device | 8 | Bailer or manual bilge pump |
| 3 | Manual propelling device or: | | Anchor with 50' of rode |
| 4 | Nav lights | 9 | 2 Fire Extinguishers |
| 5 | Sound Signal device | 10 | Magnetic Compass |
| 6 | Buoyant heaving line | 11 | Radar reflector |
| 7 | Water tight flashlight | | |

P.O. #5

Reason gear and equipment is stowed in assigned places

So all crew members can access gear/equipment quickly in the event of an emergency

P.O. #6

Purpose of Safety Harness, pulpit and lifelines:

To ensure the crew member stays on the boat and or attached to the boat.

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| P.O. # 7 | |
| Nav lights for a sailboat: | |
| Underway: | Running lights (112.5 degrees each) , stern light (135 degrees) |
| Under power: | Running lights, plus masthead light (225 degrees) |
| At anchor: | All round white light |
| Sail/row boat under 7 metres: lantern or flashlight | |

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| P.O. #8 | |
| Hypothermia / Cold Water Survival | |
| - A condition resulting from a lowering of the body's core temperature due to heat loss from the body. | |
| - Main heat loss areas are groin, head (1/2 of heat loss area) and sides of body | |
| Mild hypothermia: Shivering, numbness in hands/feet, impaired judgement, weakness and or loss of coordination. | |
| Mild hypothermia treatment: Remove wet clothing, put on dry clothing, especially a toque and scarf. Apply WARM (not hot) objects to head and neck. | |
| Give warm (not hot) non-alcoholic/caffeine free beverages. | |
| Severe hypothermia: Very little movement, no shivering, slurred speech, | |
| Dilated pupils, cold waxy skin, apathy, exhaustion, drowsiness | |
| P.O. #8, continued | |
| Severe hypothermia treatment: Remove clothing, place person in sleeping bag and have another person transfer body heat to them.... Apply warm objects as in mild hypothermia, call Coast Guard, perform CPR if necessary | |
| Cold Water Survival: Keep calm, control breathing, keep clothes on, stay still, float in the HELP position (Heat Escape Lessening Position). | |
| REACTION TO FALLING INTO COLD WATER: | |
| 1. Large involuntary gasp (possibility of taking water into lungs) | |
| 2. Heart starts racing | |
| 3. Increase in blood pressure – possible risk of heart attack | |

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| P.O. #9 | |
| Define what cold shock is: | |
| Symptoms: | |
| 1. Large involuntary gasp (possibility of taking water into lungs) | |
| 2. Heart starts racing | |
| 3. Increase in blood pressure – possible risk of heart attack. | |
| 1/10/1 rule – One minute to get breathing under control. 10 minutes to reach | |
| Offered assistance (life buoy/line etc) while ambulatory. 1 hour to survive | |
| in cold water | |

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| P.O. #10 |
| Carbon Monoxide Poisoning |
| 1 CM is a byproduct of combustion produced by engines running or stove Fuel burning |
| 2 CM is a dangerous, odourless, poisonous gas. |
| 3 All vessels equipped w/ engine should have CM tester |

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| P.O. #11 |
| Preventing Magnetic Interference with Ship's Compass |
| Iron or ferrous metals (metals containing iron) or magnets, or electronic devices near the ships compass can seriously affect compass accuracy. |
| Do not leave tools, a radio, or metal gadgets near the compass. |

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| P.O. # 12 |
| Common sources of fire |
| Fumes from gas, propane, butane, alcohol and kerosene are the most common sources of fire and explosion aboard a boat. |
| Gas – Store above deck in vented containers. |
| Propane – Store in exterior, vented locker. Turn off solenoid 1 st , then burner. |
| Butane – Same as propane. |
| Methane – Vent holding tank, pump out regularly |
| Hydrogen – Batteries give off hydrogen... vent battery compartment |

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| P.O. 13 |
| Safe refueling procedures: |
| 1 Moor boat securely |
| 2 Engine off, crew off of vessel |
| 3 No smoking. Close hatches and windows. |
| 4 Take portable tanks ashore to be filled. |
| 5 Don't use electrical switches |
| 6 Ground nozzle against filler pipe |
| 7 Wipe up any spillage |
| 8 Check for vapour odors |

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| P.O. #14 |
| Identify a scuba flag |
| Red/white |
| Blue and white |

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| P.O. #15 |
| Charging Batteries/Flares/Signals/Capsize |
| Batteries produce hydrogen gas when being re-charged. Hydrogen is highly explosive – vent battery compartment to release gas. |
| Flares – Aim flares skyward, downwind and away from the vessel. |
| Distress Signals – (Annex IV of Col Regs): Four types – A, B, C and D |
| A, B, and C are red and can be used day or night. |
| A is a single parachute flare |
| B is a multi star rocket |
| C is a hand-held flare |
| D is a hand held or buoyant orange smoke signal |
| Capsize – Get out of the water if you can, as much as you can. If you can't, float in the HELP position. Stay on or as close to the vessel as you can. |

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| P.O. #16 |
| Radar Reflectors |
| Should be permanently mounted |
| Best mounted in the “catch rain” position, at least 13 ft above sea level. |
| May be obscured by a wet sail |
| Rough sea condition, heavy rain or poor tuning may affect radar performance. |

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| P.O. #17 |
| Overhead power lines |
| Know your mast height |
| Read chart carefully, especially when navigating at night. |

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| P.O. #18 |
| Float Plan |
| File a float plan with family or friends prior to leaving on an overnight cruise. |
| Provide emergency numbers, and time and place of departure and arrival. |
| Provide description of vessel, names and details of all crew members |
| Friends/family can advise authorities if vessel doesn't arrive. |

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| P.O. #19 |
| Collision Regulations |
| Be able to apply #12 to #17 by means of a diagram |
| #12 Windward gw to Leeward. Port gw to Starboard. Windward is defined as the opposite side to which the mainsail is carried. |
| #13 Overtaking – ALL vessels overtaking are required to keep out of the way |
| #14 Head On – Both vessels alter to starboard |
| #15 Crossing – Vessels give way to vessels crossing on her starboard side “Red is right”..... At night you are looking at a red light meaning “stop” |
| #16 Give Way action: take early and substantive action to keep clear |
| #17 Stand On Vessel action: Keep course and speed, until action becomes necessary, then take such action as will best aid to avoid collision |

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| P.O. #20 |
| Identify and describe various vessels and identification marks: |
| Pleasure craft, Sailing Vessel, Power Driven Vessel |
| Capacity plate, recommended gross load capacity, recommended safe limit of engine power |

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| P.O. #21 |
| Safe Speed Considerations: |
| 1 Visibility |
| 2 Traffic Density |
| 3 Maneuverability – stopping and turning |
| 4 Lights – shore lights at night |
| 5 Wind, current, nav hazards |
| 6 Vessel draught versus depth of water |

P.O. # 21 (continued)

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| Action to take in Reduced Visibility |
| 1 Slow down or stop |
| 2 Note and record your position (lat and long) |
| 3 Turn on navigation lights |
| 4 Post a lookout |
| 5 Hoist a radar reflector |
| 6 Turn on and monitor depth sounder |
| 7 Sound appropriate sound signals (under sail: one long, 2 short/2 minutes), (under power: one long/2 minutes) |
| 8 Anchor in shallow water, away from traffic if possible. |
| 9 Ensure crew are wearing pfd's |

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| P.O. #21 (c) (continued) |
| Operating in a Commercial Lane |
| 1 Proceed in proper lane and in proper direction |
| 2 If possible, keep clear of traffic lanes |
| 3 Avoid crossing lanes, and if you must cross, do so at right angles. |

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| P.O. # 22 |
| Publications for operating a 10 metre pleasure vessel in unfamiliar waters: |
| 1. Current or updated nautical charts |
| 2. Sailing Directions |
| 3. Tide and Current Tables |
| 4. List of Lights, Buoys and Fog Signals |
| 5. Radio Aids to Marine Navigation |

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| P.O. #22 (continued) |
| Principal acts/legislation affecting pleasure craft: |
| 1 Canada Shipping Act |
| 2 Boating Restriction Regulations |
| 3 Collision Regulations |
| 4 Small Vessel Regulations |

5 Criminal Code of Canada

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| P.O. # 23 |
| Sources of Weather Data |
| 1 Ipad, Iphone, Computer |
| 2 Phone |
| 3 VHF transmission |
| 4 TV |
| 5 Newspaper |
| 6 Commercial Radio |

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| P.O.# 24 |
| Interpret Marine Weather Forecast |
| ENVIRONMENT CANADA WIND RANGES: |
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| STRONG WIND WARNING: 20-33 KNOTS |
| GALE WARNING: 34-47 KNOTS |
| STORM WARNING: 48-63 KNOTS |

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| P.O. # 25 |
| Local Weather Hazards and warning times: |
| 1. Fog – Fair, calm weather with sharp temperature drop overnight.... Minutes |
| 2. Katabatic Winds – Fall & Spring – Rough water at entrance to inlets – No warning time. |
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| P.O. # 26 |
| Responsibilities of the Skipper. Responsibilities of the crew. |
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| Skipper: Safety of the crew and the vessel |
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| Crew: Obey and assist the skipper. |
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| P.O. #27 | |
| What sails to use as wind increases or decreases. | |
| True Wind: | |
| 0 - 12 knots | Genoa and Full Main |
| 13 – 18 knots | Genoa and Reefed Main |
| 19 – 26 knots | Jib and Reefed Main |
| 26 – 32 knots | Jib or reefed main |
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| P.O. #28 | |
| Dangers of a lee shore. | |
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| Vessel may go aground because the winds may be too powerful to sail or motor off. A lee shore is a shore that the wind is blowing on to. | |
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| P.O. # 29 | |
| Be able to interpret and understand Chart 3463 | |
| - Aids to Navigation | |
| - Depth contours | |
| - Chart #1 Symbols | |
| - Large Scale vs Small Scale | |
| - Latitude and Longitude | |
| - Date of Edition | |
| - Bouys – meaning / location | |
| - Beacons | |
| - Light symbols | |
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| P.O. # 30 | |
| Be able to use the Tide and Current Tables to find: | |
| a) Time and heights of tides at reference ports | |
| b) Direction and rate of current at reference stations | |
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| P.O. #31 |
| Describe features of a Safe Anchorage: |
| 1. Good holding ground |
| 2. Room to swing |
| 3. Adequate depth after calculating for high tide |
| 4. Sheltered from strong winds and waves |

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| P.O. #31 |
| Anchors – different types for different bottoms: |
| CQR – Mud/clay. OK in weeds. |
| Bruce – All purpose. Good in silt bottoms. Not good in weeds. |
| Danforth – Light weight anchor for sand, mud or clay. Not good in weeds. |
| Grapple – Good in rock. Good secondary anchor. |
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| P.O.#31 |
| Anchors – Scope requirement – lunch, overnight, rough weather |
| Lunch: Max high tide, plus chock: 3 to 1 |
| Overnight: Max high tide, plus chock: 5 to 1 |
| Heavy weather: Max high tide, plus chock: 7 to 1 |
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| P.O. #32 |
| Seamanship – What to do when stuff happens: |
| a) Springing a leak – Start bailing/pumping. Determine source of leak. Put on PFD's. Reduce speed. Send May Day. Beach boat. |
| b) Steering fails – Devise other control methods. Turn downwind by hardening the foresail and easing the main. Turn upwind by hardening the main and easing the foresail. Use outboard dinghy motor. Use emergency tiller. |
| c) Grounding at anchor – Consult Chart and Tide table. |
| d) Fouled propeller. Stop engine. Sail to destination. Turn shaft manually. Dive the boat – crew member is attached with harness and line. |
| e) Standing rigging fails – if a windward shroud breaks – tack. If a forestay breaks, turn downwind. If the backstay breaks, harden mainsheet and turn into the wind. Reduce sail and try to repair. |
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| P.O. #32 |
| Seamanship – What to do when stuff happens: |
| f) Dragging anchor – Increase scope. Maintain anchor watch. Re-anchor. Set an anchor alarm on your gps chartplotter/ handheld gps. |
| g) Running aground – IMMEDIATELY check to see if crew and boat are OK. Then, motor or sail off. Kedge off. Heel the boat. Lighten ship. Close portholes/hatches/through hulls. Heel the boat with the mast toward shore. Set anchor out to seaward as far as you can. Protect hull with cushions/fenders etc. |
| h) Broken Halyard – Ease the sheet |
| i) Fire – Sound alarm. Ensure crew safety. Use fire extinguisher. Call for assistance. |
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| P.O. # 33 |
| KNOTS |
| a) Bowline – makes a temporary loop in a line. Tying a sheet to a clew of sail. |
| b) Clove hitch – tying a line to a spar, more of a temporary knot |
| c) Round turn & Two Half Hitches – tying a dock line to a ring or rail |
| d) Figure Eight – Stopper knot (ex. For jib sheets) |
| e) Reef Knot - tying 2 ends of the same diameter line |
| f) Double Sheet Bend – tying 2 ends of different diameter line |

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| P.O. #34 |
| Using the VHF Radio |
| - Channel 3, 8 or 21 for weather. Press “WX” on the VHF unit |
| - Monitor Channel 16 continuously. |
| - Channel 12 - (Vancouver area) for Vancouver Traffic |
| - Channel 11 - traffic outside the Vancouver Harbour area |
| - 66A (alpha) Most marinas – check in as you are approaching marina |
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