



# SCOW CRUISER SKIPPER INFORMATION FILE

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## INTRODUCTION

This Cruiser Skipper Information File (SIF) sets forth the skipper responsibilities and SCOW procedures specific to SCOW's three cruising keelboats:



- Rebecca (1980 Catalina 25)
- Hiatus (2003 Catalina 250)
- Lion's Paw<sup>2</sup> (2003 Catalina 250)

In addition to this SIF Skippers must also comply with:

- SCOW Skipper Requirements and Boat Use Policy
- Inland Navigation Rules
- Other SCOW's policies and legal requirements
- Washington Sailing Marina Rules, posted on the Bylaws and Policies page of the SCOW website

This SIF only addresses certain features of the boats; it is not a substitute for SCOW Cruiser Training or a complete instruction manual on how to operate the boats. Detailed operating instructions, equipment lists and stowage plans are on board each boat. The Pre-Sail and Post-Sail checklists on each boat list additional items that must be done before and after sailing.

**Towing Insurance:** Cruiser skippers are required to purchase an individual towing policy such as the Unlimited Freshwater Towing policy offered at a discount to SCOW members by BoatUs.com. Skippers must maintain coverage as a condition of skippering a cruiser. Skippers must carry their insurance information, including information on how to request a tow, while skippering. Skippers may be liable for damages incurred if towed by a vessel not sanctioned by their towing insurance carrier.

## SAILING AREA, GENERAL USE AND SCHEDULING

### Cruising Area

Cruising boats may be sailed in the following areas:

- Up the Potomac only to the 14th Street Bridge.
- Up the Washington Channel to the Washington Marina (beware of shifting winds and boat traffic).
- Up the Anacostia River under the Frederick Douglass Memorial Bridge to the Martin Luther King Jr. Ave/ 11th St. Bridge. The new Douglass Bridge has 43'-3" minimum vertical clearance above mean high water in the navigable channel. The tallest SCOW boat, *Rebecca*, has a mast height of 36' with a 1.5' antenna. The remains of the old Douglass Bridge center pier are submerged and marked with numerous danger buoys. Leave those well to port going upriver. Respect restricted areas near the Navy Yard.
- Downriver as the skipper pleases, provided that the boat can be returned on time.

Boats must be motored under bridges. The sails may be left up while motoring if steering will not be affected. However, depending on wind and traffic conditions, the skipper may want to lower the sails. If the sails are up, a careful lookout must be kept for traffic.

### Reservations & Time Slots

Cruisers may be reserved during the following time slots. The boats must be returned to their proper slip at the end of the usage period except in emergency situations. If the boats are not returned to their proper slip, the skipper must notify the Skipper Director and Commodore as soon as possible.



1. Day Sail Time Slots
  - a) 8:00 a.m. to 5:00 p.m. daily
  - b) 5:00 p.m. to 12:00 a.m. daily
2. Overnight Sail Time Slot
  - a) 5:00 p.m. to 8:00 a.m. daily
  - b) The Skipper must have prior permission of the Director Skipper and pay a fee of \$10 for each 5 PM to 8 AM overnight time slot. The skipper may enter a reservation in the system pending approval. The fee will be due after the overnight has been completed. No fee will be due if the skipper cancels the reservation more than 48 hours in advance of the reservation period, if the boat is removed from service or if the Skipper Director agrees that forecast weather or other unsafe condition justified cancellation.
3. SCOW boat reservations are made online at <https://scowreg.herokuapp.com/>. Authorized Skippers have access to the system. When making a reservation, put your phone number in the comment field in case someone needs to contact you regarding the reservation.

Boats can be reserved for one or more hour-long periods. The boat reservation system is not programmed to enforce the SCOW rules. It is the skipper's responsibility to follow the rules by only making reservations within the approved time slots.

Reservations made by SCOW Board members for training, social sails, maintenance, and other club events, show in the reservation system as reserved by a Director. If you wish to contact a Board member about these reservations, please send an email to that Board member directly.

- A skipper may only have two future reservations on the books at the same time for personal use. Reservations for training, etc. do not count as personal reservations. Club use reservations normally are made by a Board member, but may be made by an individual member if authorized by a Board member. Reservations for training or tutoring must be made by, or approved by, the Training Director.
- A single skipper may not reserve two consecutive time slots in advance for the same boat. However, during the week (Monday – Friday) other than Federal Holidays, cruisers may be reserved for consecutive time slots by a single skipper.
- If more than one SCOW skipper is in the boat and they have scheduled consecutive time slots, they may sail together until the end of the two consecutive slots.
- Skippers may schedule cruisers for part of a sailing time slot but must not cross slots, *e.g.*, may reserve from noon to 3 PM, but not reserve from 3 PM to 8 PM.
- Skippers have a one-hour grace period to arrive at the Marina after the start of the time their reserved cruising boat use period begins. If the scheduled skipper has not arrived at the end of the grace period, another skipper may use the boat after entering a reservation in boat reservation system or, if the existing reservation cannot be deleted, sending an email to [Skipper@scow.org](mailto:Skipper@scow.org) explaining the situation. Note that a reservation may not necessarily start at the beginning of a boat use time slot. For example, Skipper A has reserved Rebecca from 9 AM to noon. Skipper B arrives at the Marina at 9 AM and



sees Rebecca in her slip. Although this is 1 hour after the start of the 8 AM to 5 PM “time slot” it is not 1 hour after the start of Skipper A’s reserved period.

- Skippers who cannot keep a reservation shall promptly delete the reservation and, if possible, send an “all-SCOW” email alerting other skippers that the boat is available.
- When a skipper returns to the dock at the end of a reservation, if the next skipper with a reservation is at the dock, the returning skipper may turn over responsibility for the boat to the next skipper without performing the post-sail activities.

## SAFETY CONSIDERATIONS

### Debris & Ice

After a heavy rain, logs or debris may wash into the river, and may be partially or totally submerged. In winter, do not sail into areas covered with ice, even if it appears to be thin. Be alert for floating ice. If the fairway out of the channel is iced over, the cruisers cannot be taken out.

### Smoking

Smoking (cigarettes, cigars and pipes) and vaping is not permitted on the boats, either in the cockpit or cabin. Our boats have gas tanks in the cockpits. Use of cannabis in any fashion is prohibited.

### Open Flames, Grills & Stoves

1. The Marina prohibits charcoal grills, gas grills or open flames of any type on the docks or on any boat tied to the docks. The use of grills is not permitted on board SCOW boats at any time, whether or not at the Marina. Only the stoves installed in the cruising boat galleys may be used on board and only when docked or anchored. Be sure that the fire extinguisher is charged and available. These stoves can cause a fire, or carbon monoxide poisoning, if used improperly. Before lighting a stove, ensure that the cabin is well ventilated and free of gasoline vapors. Carbon Monoxide/Smoke detectors are installed on our cruisers. Ensure that the detectors are charged and working.
2. Rebecca has an alcohol stove. Skippers are responsible for providing fuel. Only refill the stove when the boat is docked or moored. If possible, fill the stove on shore. Avoid spilling or overfilling. Never refill a hot stove. If there is spillage, do not light the alcohol stove until the area has been thoroughly cleaned and the spill has evaporated. Skippers must bring their own fuel.
3. *Hiatus* and *Lion’s Paw<sup>2</sup>* have propane (LPG) stoves. Confirm with the Cruiser Maintenance Director to determine if they are currently operable. Fuel tanks are in cockpit starboard lazarette. Turn off propane flow in this order: at the knob on the propane tank, at the LPG switch on the starboard cabin wall, and then at the knob on the stove. Ensure that all knobs and switches are in the off/closed position as soon as stove is no longer in use.

### Onboard Documents and Resources

Each boat has two binders. The yellow binder contains the boat registration, skipper logs, sailing checklists, repair logs and the stowage plan. The black binder contains reference documents such as club policies and manuals for the boats and various equipment. Each boat has a stowage plan in the yellow binder. Equipment is generally stored in the same areas on each boat. Skippers must ensure that all equipment is stowed in the proper location after use and that it is in working order.



## Float Plans

A float plan must be filled out and left in the unlocked black box labeled FLOAT PLANS on the dock box. Blank forms can be found in the log. Float plans must be removed at the end of each sail.

## Seacock valves

*Rebecca* has two seacocks. One is accessible under the v-berth and drains the sink in the head. This seacock should be closed at all times unless the sink is being used. The other is accessible under the sink and drains the ice chest, which is not used; this seacock always should be left closed. The seacocks are ball valves and should be turned so handle is perpendicular to the drain hose to close and parallel to open. *Lion's Paw<sup>2</sup>'s* and *Hiatus'* sinks drain above the waterline; neither have seacocks.

## Signaling Devices

Instead of flares, each boat has a battery-operated beacon stored in the head area, which runs on 2 D batteries in a mesh bag attached to the beacon, that must be installed when using the beacon. Each boat also has a 12v corded searchlight to be plugged into the cigarette lighter.

## Fire Aboard A Vessel

1. Fires may be electrical such as from wiring or a battery (Type C), liquid such as gas or alcohol (Type B), or paper/wood (Type A). SCOW's cruisers are equipped with Type A/B/C extinguishers that will be effective on any type of fire. Only Type A fires can be extinguished with water.
2. The most effective fire-fighting technique taking care to avoid fire. Skippers should be alert for dangers such as a leaking fuel line when they perform their pre-sailing check. If detected, the boat must be taken out of service immediately and the Maintenance Director notified.
3. If a fire occurs on a vessel, act quickly. Focus on the safety of the crew rather than the vessel. The crew should immediately don PFDs and, if below, immediately go topside. If the fire is small and contained, you may be able to fight it. If you have any doubt about whether you can contain the fire, immediately give a Mayday with your situation and location and prepare to abandon the vessel. If you do fight the fire, have the crew continue preparations to abandon the vessel in case you are unsuccessful.

AN EXTINGUISHER WILL DISCHARGE FOR APPROXIMATELY **10 SECONDS** BEFORE EMPTY. DO NOT OVERESTIMATE YOUR ABILITY TO PUT OUT A FIRE.

It is critical to aim it at the **BASE** of the fire. To use a fire extinguisher, BoatUS recommends a mnemonic, **P-A-S-S**:

Pull the pin at the top of the cylinder

Aim the nozzle at the base of the fire

Squeeze or press the handle

Sweep the contents from side to side at the base of the fire or use a series of short blasts aimed at the base until it goes out



## GENERAL OPERATING PROCEDURES

### Displacement, Freeboard, Sail Area, Draft and Mast Height

1. Rebecca displaces approximately 4500 pounds, with approximately 1500 pounds of ballast and approximately 270 square feet of sail area. Hiatus and *Lion's Paw*<sup>2</sup> displace approximately 4,200 pounds with approximately 1,050 pounds of ballast and a little less sail area.
2. Because of their size and displacement, keelboats do not “turn on a dime” like Flying Scots. This has to be considered in light winds or in proximity to other boats or obstructions.
3. The cruisers have more freeboard (the distance from the deck to the waterline) than small boats. Freeboard acts like a sail when the wind is blowing. This means that the cruisers may be affected by wind conditions when docking.
4. *Rebecca's* draft is 4'-0" feet; it has a fixed fin keel.
5. *Hiatus* and *Lion's Paw*<sup>2</sup> have fixed wing keels with a draft of 3'-5". For a wing keel, if you go aground, instead of shifting weight from port to starboard, you should instead move weight fore and aft to assist in ungrounding the boat.
6. *Rebecca* has the tallest mast in our fleet and has been measured at 36.5 feet from the top of the mast to the waterline. The antenna is estimated to add another 1.5 feet. The masts on *Hiatus* and *Lion's Paw*<sup>2</sup> are slightly shorter.

### Four-Stroke Engine Operation

SCOW's cruisers all are equipped with four-stroke engines, which use regular unleaded gas, not an oil/gas mixture. For issues not addressed below, see the onboard engine operations manual, found in the black binder. In particular:

1. Review the procedures for tilting and lowering the engines. All three boats use similar but slightly different procedures. For all three, rotate the tilt lever directly under the engine housing, then pull the engine toward the transom, then slowly release it to tilt to vertical. Then disengage the engine bracket handle and let the engine drop until the cavitation plate is a few inches under water.
  - a. On *Hiatus* and *Lion's Paw*<sup>2</sup> if you are unable to move the motor, do not force anything. Consult the engine owner's manual in the black binder.
  - b. On *Rebecca*, watch the video showing how to raise and lower the engine that's linked to the SCOW website.
2. The engines on all three cruisers have electrical starters. If the batteries have discharged, the engines can be started with their manual pull starters. Set transmission to neutral before starting.
3. The engine on *Rebecca* and *Hiatus* do not have a manual choke. *Lion's Paw*<sup>2</sup> has a manual choke. The choke is opened to start the engine when cold, then adjusted when the engine has warmed up.
4. To start the engine, first tilt and/or lower the engine into the run position (varies on each boat). Then open the air vent on the gas tank completely, pump the bulb on the gas line two or three times until it is firm, make sure the engine is in neutral and the throttle is at the “start” setting. Make sure the kill-switch key is properly attached. On *Rebecca* and *Hiatus*, push the start button. On *Lion's Paw*<sup>2</sup>, pull out the manual choke and then press the start button.



5. Check the oil pressure indicator light (varies on each boat):

- *Rebecca*: green light on
- *Hiatus*: red light off
- *Lion's Paw<sup>2</sup>*: red light off

If the oil pressure is not registering, do not use the boat. Immediately turn off the engine, and notify the appropriate bosun or the Maintenance Director so that they can take the boat out of service and address the problem.

6. Allow the engine to idle for several minutes to ensure it is running properly before taking off from the dock. (On *Lion's Paw<sup>2</sup>*, adjust the manual choke when the engine has heated.) Make sure the engine is in low idle before engaging the forward or reverse gears or returning to neutral. When switching from forward to reverse, wait in neutral for 2 seconds. To stop the engine, throttle to idle, put the engine in neutral, and then hold in the kill-switch button until engine has completely stopped.
7. The engines are water-cooled. The "cavitation plate" on the engine must be underwater when the engine is running to allow the engine to draw cooling water. When you first start the motor, check to see that a small "stream" of water about the width of a pencil is coming out from below the engine housing and do so periodically while motoring. This shows that engine cooling water is flowing. The stream must be continuous as long as the motor runs. If several people are on the foredeck, the engine may lift out of the water high enough so that the cavitation plate will not be underwater and therefore, will not draw in water to cool the motor. ***Even a few seconds without cooling water will damage the engine.***
8. When the engine is off and you are sailing, close the air vent on the tank to avoid gas spilling if the boat heels. The caps should be fully closed when the cruisers are docked or at anchor.
9. During low-use winter months, the fuel line at the tank should be disconnected to prevent fuel being syphoned into carburetor due to pressure in the tank forcing fuel into the intake system.
10. Filling the fuel tank and treating gas with ethanol treatment:
- a) After using boat, the skipper shall not leave the fuel tank less than one-half full. The skipper is responsible for refilling the fuel tank when the boat is returned to the dock. If you cannot refill the tank when you return, you must see that it is refilled before the beginning of the next reservation slot. Consider bringing a gallon or two of gas to the Marina to "top off" the tank when you return; this is especially recommended if you will be returning late.
  - b) Never fill a fuel tank onboard the boat. The tanks may be removed and taken to a gas station. If the skipper brought gas, the tank must be removed from the boat and fueling done on shore. If refueling at a gas dock, remove the tank from the boat and fill on the dock.
  - c) Ethanol Treatment: Ethanol in gasoline attracts moisture. SCOW uses a fuel treatment to prevent this. The treatment is kept on each boat. Add the amount directed on the label to the boat's gas tank. Normally, this will be less than an ounce for every one gallon of gas you add to the tank. Note that the gas already in the tank will have been treated. The gas docks at National Harbor and the Wharf sell ethanol-free gas, as do some gas stations. If you add such gas, no treatment is needed.





## Docking Procedures

1. Whether docking at the Marina or elsewhere, boats must be docked under engine power, except in emergencies or during training, tutoring, or checkouts.
2. At the Marina, boats must be docked in their correct slips. *Rebecca* and *Hiatus* are secured against the “T” end of G dock, with bows facing each other, approximately 6 feet apart. *Lion’s Paw*<sup>2</sup> is docked in a slip next to *Rebecca*. All boats are to be secured with fore and aft spring lines and bow and stern lines, and with fenders.
3. The dock lines have been adjusted and fixed to hold each boat in the correct position in its slip. Do not untie the ends of the dock lines attached to the cleats on the dock. Cleat and uncleat the ends of the lines attached to the cleats on the boats and leave the lines on the dock. SCOW has a specific technique to attach the docking lines to the boat, including which cleat, the path to the cleat and a proper cleat knot. The technique is shown in the logbook. If you arrive at the boat and it is not tied properly then make a note in the log and notify the Skipper Director.
4. Hang the fenders at the designated locations by clipping the hooks onto the stainless steel “loops” marked with colored tape, either at the base of a stanchion or in the middle of a railing post. The fender lines colors match the tape markings on the steel loops. Do not adjust the lines on the fenders or hang in other locations. When hung correctly from the marked loops, the fenders will hang at the correct heights.

## Marine Head

1. Portable heads with removable holding tanks meeting Federal regulations are installed on all three vessels. Instructions for operation are posted next to each head. The head consists of two halves; the bottom half is the waste holding tank and the top half holds fresh water for flushing.
2. Before starting a sail, make sure there is flushing water in the upper tank sufficient for the number of people and the length of the sail. If water needs to be added, also add one vial of head treatment from the box of vials under the sink, replacing the empty vial back in the box, to be refilled. When the head is flushed, treated flush water will move into the holding tank, breaking down the waste and controlling odors.
3. If the head was used during the sail, the skipper responsible for emptying the holding tank. The Marina pump-out station does not fit porta-potties so detach and set the upper tank aside and take the waste holding tank to a marina restroom and empty it into a commode. Take a bucket of water to the restroom to use to rinse the tank. Reassemble and reinstall the head per the posted instructions.
4. Use only the single-ply toilet tissue on the boat, which is specially made for use with the portable heads. If possible, put used tissue in a trash bag instead of the head, which will make emptying the head easier.

## Electrical System

1. SCOW cruiser engines have alternators that charge the batteries when the engine is running and solar panels to trickle charge them when at dock. For the solar panels, a blue pilot light shows when they are generating electricity. They will work even when in partial shade and even with no direct sun. The panels are highly weatherproof but are glass. For that reason, they are attached to bridles with snap shackles. Upon opening the boat, remove them and store on the cushions in the aft berth. Return them to their bridles when locking up. The solar panel location is different on each boat.





- a. Hiatus' panel is used facing south on the windshield in front of the mast, secured both to a bridle on the tabernacle and a bridle looped around the forehatch hinges. The cable runs through the companionway hatch drainage channel and can be disconnected by lifting the hatch cover.
  - b. Lion's Paw 2's panel is used facing south on the starboard cockpit bulkhead, secured to a bridle looped around the base of the coach roof winch. The cable is tied back to the companionway stairs with a snap shackle and need not be disconnected to reach the aft berth.
  - c. Rebecca's panel is used facing east on the starboard deck just forward of the lifeline gate, secured to the diagonal strut on the stanchion base. There's no need to disconnect the cable for the panel to reach the quarterberth. It will generate power through the afternoon from ambient light.
2. Rebecca's DC panel, with an analog voltmeter, is on the starboard side above quarter berth. Note that the analog voltmeter is unreliable. Immediately below it is an accessory panel containing a cigarette lighter port, two USB ports for charging the handheld VHF, personal phones, etc., and a digital voltmeter that displays the status of the house batteries. The accessory panel is activated by the "Accessory" switch on the main DC panel. To conserve battery power, activate individual circuits only when needed.
  3. *Rebecca* has two batteries and a "1, 2, 1 + 2" battery switch near the base of the companionway ladder, which allows either battery to be used as the "house" battery or the engine starting battery. **Do not change the battery switch position with engine running** – doing so may damage the engine's alternator.
    - a) When starting or running engine: Switch the battery to position "1 + 2" to use and charge both batteries.
    - b) When under sail, at anchor or at a dock (engine not running): Switch to "1" on odd calendar days; "2" on even calendar days. Because the boats are not used daily, this ensures alternating use of the batteries as the "house" battery.
    - c) When stowing the boat: Turn off all electrical panel switches, then turn battery switch to "OFF."
  4. The *Lion's Paw*<sup>2</sup> power system consists of two marine batteries wired in parallel. One battery starts the engine and the other is the "house" battery. However, there is no "1 + 2" switch as on *Rebecca*. Instead, when the red battery switch is "on," the boat has a power management system that charges both batteries at once while also isolating the house and engine battery system. In the event you have a dead battery on one side, an indicator lamp will glow. In that case, turn the switch to the yellow mark to combine both batteries. The LED indicator will flash to show various conditions such as charging, which generally are not of concern. However, a triple flashing signals that one or both batteries have dropped below 9.5 volts.

*Lion's Paw*<sup>2</sup> has a 12-volt power outlet panel above and to the right of the sink, wired on the house battery. It has a 15-amp internal circuit breaker (which is also the "on" and "off" switch), a 12-volt power socket and two 2.1A USB power sockets for charging phones, GPS and so on. The panel also has a voltmeter that will display the status of the house battery in volts when the switch on the panel is turned on to power the panel. The 12-volt panel should be switched "on" only when needed. When leaving the boat, make sure all switches on the DC panel are off.



5. *Hiatus* has two marine batteries wired in parallel and a power management system similar to *Lion's Paw*<sup>2</sup>. It is controlled by a panel on the bulkhead at the aft end of the quarterberth, and the two red switches on the panel should be left ON at all times. If the starting battery is dead, the yellow EMERGENCY PARALLEL switch can be turned to the "on" position to place the batteries in parallel for starting. Once started, turn the EMERGENCY PARALLEL switch to off.

There is a white DC panel above and to right of the sink. Next to the panel are two 12-volt power sockets. When leaving the boat, make sure all switches on the DC panel are off.

6. If the voltmeter shows less than 12.0 volts or the running lights are inoperative or not bright enough to be seen at a safe distance at night, do not use the boat at night until the batteries have been charged or replaced and all running lights are working properly. Seek assistance from the Maintenance Director or Lead Bosuns who will investigate and take needed action.
7. The cigarette lighter receptacles are for use only with 12 volt devices, including the searchlights, and USB adapters. Do not use AC power inverters. These will quickly run down the batteries. The power systems on the boats are not designed for this use.
8. *Lion's Paw*<sup>2</sup> does not have a shore connection available to skippers. Its 110v power socket is only for use by maintenance crews. Rebecca has no shore power connection. *Hiatus* has a shore power connection for AC power when docked, also only for use by maintenance crews. *Hiatus* also has a wooden AC switch panel below and to the right of the sink. This only for use by maintenance crews.

*When using shore power on any boat, never connect or disconnect the plug on the boat when the shore power cord is "live."* When connecting to shore power, always plug the power cord first into the receptacle on the boat, then into the shore power on the dock. When disconnecting, do the reverse. First, disconnect the cord from the dock, then disconnect the cord from the boat. Failure to do this can cause "arcing" on the plug and socket of the boat, which is a leading cause of fires. Also, this sequence means that individuals are never holding the live end of a shore power plug while standing near or in water. Shore power uses a special cord with locking connectors.

9. The **steaming light switch on *Lion's Paw*<sup>2</sup>** on the panel is inoperative – attach the removable steaming light kept in the starboard locker when needed.

## Marine Radio Use

1. All cruisers are equipped with fixed marine radios and hand-held radios. No license is needed. The radios also receive National Weather Service broadcasts. There are emergency antennas for the fixed marine radios.
2. Skippers should monitor Channel 16 unless they are monitoring another channel, for example, during a race. Do not transmit messages or engage in conversations on Channel 16, which is only for emergency use and hailing. Instead, only hail another vessel on Channel 16. Then immediately direct the other vessel to switch to another channel to conduct your discussion. Normally, you tell the other vessel to switch to Channel 68, although 69, 71, 72 and 78A are also authorized as working channels for non-commercial vessel-related communications.
3. To initiate a transmission, announce the name of the boat you are hailing three times, then the name of your boat, then say "over" to indicate that you are done transmitting – then release the



talk button. You cannot hear a response if the transmit button is depressed. Keep messages short.

4. Skippers must comply with the proper usage of “Mayday,” “Pan Pan,” and “Securite” hailing.

### Getting Underway Under Power

1. Go through the items on the Pre-Sail Checklist in the log book.
2. Make the mainsail ready to hoist in case the motor fails. Also make certain that the anchor and rode are not fouled in case the motor fails and it is necessary to drop anchor.
3. Start the engine and allow it to warm to confirm it is running properly. For *Rebecca* and *Hiatus*, cast off the spring lines. Undo the stern line from the boat cleat and hold onto the stern line. Cast off the bow line. Push the bow away from the dock (crew will need to be slightly forward of amidships), making certain that the engine doesn’t hit the dock. Have a boat hook ready above decks in case the boat needs an additional push from the dock or to fend off the boat in front if needed. Once the bow has cleared the other boat, place the motor into forward; apply modest throttle and toss the stern line onto the dock. The engine may be used in reverse to assist backing down the fairway far enough to clear the boat ahead.
4. For *Lion’s Paw<sup>2</sup>*, the boat is backed stern-first out of its slip and fairway, past *Rebecca’s* stern and into the channel. To do this, station a crewmember on the bow of the boat with a boat hook to fend off the dock or the boat in the adjacent slip. Cast off the spring lines. Have the crewmember on the bow uncleat and hold the bow line and either the skipper or a crewmember then uncleat and hold the stern line. Put the engine in reverse. As the boat begins to move out of the slip, the remaining lines are tossed to the dock. Back *Lion’s Paw<sup>2</sup>*’s stern down the fairway, watching that its bow clears the adjacent boat and the stern clears the dock and *Rebecca’s* engine. Continue in reverse past *Rebecca’s* stern and into the main channel. (Remember that when the boat is moving in reverse from the slip, moving the handle end of the tiller to the port side of the boat will cause the boat to torque in a counter-clockwise fashion, which is what you will want to get your stern backing down the fairway. Keep your engine in idle so that it is easy to fend off if needed, and easy to compensate if you make an error.) Once *Lion’s Paw<sup>2</sup>* is in the main channel, the engine is put in neutral for two seconds then into forward.
5. All lines are left fixed to the dock and cast off from the boat. Leave the lines on the dock organized and arranged in a manner that they can be easily retrieved during docking. Stow the fenders in the lazarette, not the cabin, since they will be muddy.

### Docking

1. Before docking, advise your crew of your docking plan and what you want them to do. If there are crew that should do nothing, tell them to do nothing and where to sit. Crew will tend to go to the side of the boat nearest the dock as you approach to “be helpful.” This can alter the direction of the boat. As you approach the dock, check for departing boats moving down the adjacent fairways.
2. The sails should already be doused. Docking requires evaluating speed, wind and currents. It is better to be going slowly, since it is easier to add speed than to slow a boat down. However, the ability to steer diminishes as speed decreases. If the boat has no forward movement, there is no water moving over the rudder and the boat cannot be steered at all. The “freeboard” of a boat may cause the wind to push it sideways and the skipper may need to increase the throttle speed



to counteract this. The skipper should analyze all of these variables before attempting to dock, and should monitor them during the docking to make needed adjustments. (One easy way to reduce speed on our cruisers is to smoothly wag the tiller back and forth several times.)

3. Do not plan to rev the engine in reverse to slow the boat. Although it may occasionally be necessary to put the engine into reverse gear (particularly when docking *Lion's Paw<sup>2</sup>*), your docking plan should not assume that you can approach at high speed then use reverse.
4. As the bow reaches the mooring location on the dock, the boat should be close enough to allow the crew to retrieve the bow line and the bow spring line. The boat is then secured using the bow, stern and spring lines.
5. For *Rebecca* and *Hiatus*:
  - a) Approach the dock from the direction in which you plan to be facing when docked, at a 45-degree angle and low speed aiming for a point just a foot or two from the corner of the dock.
  - b) Station crew at the bow or forward of amidships with boat hooks. Ask one crew member to call out the distances from the dock to the bow.
  - c) When the bow is approximately 3 feet from the dock, sharply turn the tiller so that the stern of the boat swings into the dock, bringing the boat parallel to the dock.
  - d) The crew may retrieve and secure the bow line and spring line. You might also find that a crew member can easily step from the boat to the dock and arrest the movement of the boat by gently holding onto the shrouds. Retrieve the stern and stern spring lines.
6. For *Lion's Paw<sup>2</sup>*:
  - a) *Lion's Paw<sup>2</sup>* is turned into the fairway, then turned into the slip. Before turning into the fairway, check for departing boats moving down the fairway. Crew should be posted on the bow with a boathook to fend off the adjoining vessel, to fend off the dock if the approach is "hot," and to pick up lines. Wind or current may suggest stationing another crew amidships with a second boathook. A helpful strategy for docking *Lion's Paw<sup>2</sup>* is to have just enough forward momentum to enable water flow across the rudder and steerage. Keel boats turn on their keel, located about a meter back from the mast. Plan to have your port beam just barely pass by *Lion's Paw<sup>2</sup>*'s dock slip's corner and then turn the boat smartly to port so that your crew members can step off and hand over dock lines.

## Headsails & Reefing

### Headsail configuration

1. *Rebecca* Jib: *Rebecca* has a set of jibs with traditional "hanks" that are attached to the forestay. *Rebecca* carries a storm sail, a 110% jib, a 130% jib, and a 150% genoa, stowed in the v-berth. Additional sails (a drifter and a spinnaker) are kept in the sail shed for use when needed.
2. *Hiatus* and *Lion's Paw<sup>2</sup>* foresails: *Hiatus* and *Lion's Paw<sup>2</sup>* are equipped with a roller furling/reefing system which allows the jib to adjusted from a minimum of 0% (fully furled - heavy winds or docked) to a maximum of 135%. To unfurl the jib, luff up slightly off the wind and pull on the active sheet, while at the same time easing the grey furling line but maintaining some tension. (Always maintain tension on the furling line when taking out and putting away a roller furling jib so that the furling line does not tangle.) When at the desired



sail position, cleat off the furling line, adjust the jib lead blocks on both sides, and tension the jib sheet appropriately as you fall off the wind. To furl the jib, luff up and ease the active sheet slightly, *maintaining some sheet tension*; pull the grey furling line until you reach the desired amount of sail. Cleat off the furling line. Adjust both jib sheet blocks and tension the jib sheet as you fall off the wind.

## Reefing

All cruisers have two rows of reefing points but they differ in whether the reef tack is secured via a cringle (a large grommet) or via a pair of reefing rings attached by a strap sewn to the sail at the luff, and whether that cringle or ring is held down by looping it over a ram's horn (on *Rebecca*) or by pulling the hook of the Cunningham/downhaul line across the front of the mast and engaging it in the cringle or ring (on *Hiatus* and *Lions Paw 2*). The reef clew, on the other hand, is secured the same way on all boats, with a reefing line rigged through a cringle and led to a cleat or clutch.

Before reefing, decide whether to reef to the first (lower) or second (upper) reefing point. If the aft reef line is not currently rigged through the reefing point you want, you'll have to re-rig it by untying the reefing line from the eye strap at the aft end of the boom, moving it to the cringle you want, and retying it to that eye strap with a bowline.

To reef, follow these steps:

1. Release the halyard to drop the sail until the desired reefing points are adjacent to the boom.
2. Secure the reef tack via either a cringle or a reefing ring.
3. Hold down the reef clew by tightening the reef line and then securing it by closing the deck clutch or by tying it to the boom cleat.
4. Re-raise the halyard to tighten the luff
5. Tie the reef buntings very loosely under the excess sail area below the boom.

To "shake out" a reef, reverse these steps: Lower the sail a little bit to ease the tension, untie the buntings, loosen the reefing line (freeing the aft reef cringle) and detach the forward reef cringle or ring from the ram's horn or Cunningham, then raise the sail to tighten the luff.

## Securing The Boat After Sailing

1. Go through the Post-Sail Checklist in the log book.
2. Properly stow the sails:
  - a) Main sails are flaked to boom, tied with sail ties, and the cover secured. Each boat's sail cover has a D-ring at the aft end, with a 12' piece of ¼" rope or webbing attached to it. Once the sail is flaked and covered, spiral-wrap that line around the boom/sail/cover and tie it off at the mast to hold it all securely. Coil the mainsheet neatly and hang it from the boom.
  - b) On *Rebecca*, jibs are flaked ashore and stowed in the v-berth. Wet sails, wet sail bags and wet sheets should not be stowed in the v-berth; they will cause the cushions to mildew. Leave them on the cabin sole and put a note in the log that you left them in that condition because they were wet. If only the jib sheets are wet, leave them outside the bag to dry.
  - c) On *Hiatus* and *Lion's Paw*<sup>2</sup>, completely furl the foresail, cleat the roller furling line, pull the jib sheets taut, wrap once around the winch then cleat them.



3. Lift the engine out of the water properly (varies by boat – Lions Paw 2 has a metal clip that is released by pulling on a yellow line when lifting). If the engine is difficult to lift, do not force it. Check to see if the engine is still in gear and then consult the manual.
4. Remove all food, trash and personal items.
5. Clean the boat. Damp towel and broom clean the cabin. Scrub and rinse the deck and cockpit. Cleaning supplies are in each boat. If the anchor has been used, clean the anchor and chain and properly stow the ground tackle and rode. Factor in time to clean up when you are determining when to head back to port.
6. Clean the galley.
7. Check that all gear is stowed per the stowage plan. Failing to return equipment to the proper location endangers the next crew, who could be unable to find equipment in an emergency.
8. If you or your crew used the head, empty, clean and refill the head.
9. Turn off VHF radio and all electrical panel switches, then, on *Rebecca*, turn battery switch to “off.” No battery switch action is required on *Hiatus* or *Lion’s Paw*<sup>2</sup>.
10. Close the gas tank vent. If the gas tank is less than one-half full, add gas and ethanol treatment.
11. Leave all lines on the dock and boat neatly coiled and properly secured.
12. Make the proper entries in the log and sign the log.
13. Secure all hatches and lock the companionway hatch (with the numbers in the combination lock right-side up). Spin the wheels on the companionway lock so the combination is scrambled. When leaving the dock, be sure the gate is closed and locked behind you.
14. Even if you have an experienced crew, the skipper is responsible for checking the crew’s work and ensuring that all equipment is properly stowed, the dock lines are properly cleated, the boat is clean, and is locked.

## GROUNDING & GETTING OFF

The most effective technique is to avoid grounding at all. Become familiar with the area in which we sail. Monitor the depth gauge in unfamiliar waters. Seek “local knowledge” from other skippers. Consult the charts, but remember that charts may be out of date and unreliable for shoaling conditions:

1. Potomac River shoals change from season to season, and after flooding or high water.
2. Channel markers sometimes move, or are lost, during winter due to heavy ice. (The red “WR 6” buoy marking the sunken barge in our channel is often lost over the winter).
3. Areas outside of channel markers become shallow very quickly.
4. Areas near the Naval Research Lab pier and the Alexandria waterfront have submerged pilings. Areas outside of the channel near the Wilson Bridge were historically used to dump concrete and other materials.
5. The area between just off of the Blue Plains plant, south of the white “Danger” mark, is known as “Dave’s Cradle,” with 20 – 30 submerged pilings 1’ to 3’ below the surface at low tide. A chart is available at [[http://discsailing.org/DISC\\_Docs/Daves\\_cradle.pdf](http://discsailing.org/DISC_Docs/Daves_cradle.pdf)] on the Daingerfield Island Sailing Club webpage.



If you run aground, take one or more of the following actions, depending on your situation. For example, groundings often occur at an angle to the shoal if you try to hold a tack too long in a narrow channel and skirt the edge. This will affect where your deep water is.

1. React quickly to avoid grounding. If you feel yourself grounding at an angle to a shoal (such as along the edge of a channel), as soon as you sense the boat slowing but before you completely stop, try to immediately tack to use any remaining momentum to turn the bow of the boat towards deep water. You may then be able to turn the boat further and get back underway by sheeting in hard or backing-winding the jib.
2. If you are grounded, avoid being driven further aground. Luff the sails or stop the motor. When headed downwind, if needed, drop the sails or put out the anchor to the stern. If you are being blown further into the shoal, drop anchor.
3. Check for damage to the boat. Don PFDs. Before taking any action to get off, brief the crew on what you plan to do and what they should do.
4. Determine where the deep water is. Immediately note the path that got you into trouble – that may be the best path out. If you go aground at an angle to a shoal, shallow water may be on one side, deep water on the other side and not behind you. Use a boat hook to “sound” the bottom around the boat.
5. Evaluate the wind, current and tide and your options. If at low tide, the rising tide may carry you off. If you are in an area with other traffic, a large wake may lift you.
6. If stuck in mud, rock the boat to break the suction holding the keel in place and to enlarge the “groove” in the mud to free the keel. On *Rebecca*, shift weight from port to starboard. On *Hiatus* and *Lion's Paw*<sup>2</sup> due to the wing keel, move weight fore and aft.
7. If stuck on rocks, swing the boom out over the side with crew weight to heel the boat. However, on a rocky bottom, the skipper should consider potential damage to the vessel before taking any action and, if such danger exists, call for a tow.
8. Try to pivot the boat to head toward deep water, using the jib or main or possibly a boat hook, (on *Rebecca*, try “sculling” to turn the boat towards deeper water) then try to sail out.
9. With the help of another boat, try kedging. Pass the anchor to the assisting boat. Have that boat drop the anchor in deep water at least several boat lengths away (i.e., as much scope as possible). Use the anchor line to pull the boat to deeper water. You may need to use a winch.
10. **Using the motor when aground risks stirring up silt which will be sucked into the raw-water intake of the engine cooling system, seriously damaging the engine.** You should use the engine **only** if there is sufficient water below the engine to avoid stirring up silt. At the first sign that the bottom is being disturbed, you must shut off the engine.
  - If you can back into deeper water without kicking up silt, put the motor in slow reverse, and steer the stern toward deep water while everyone else rocks or heels the boat.
  - If you can pivot the boat to point to deeper water without kicking up silt, try using the motor to pivot. Because *Hiatus* and *Lion's Paw*<sup>2</sup> have a wing keel, a complete turn may not be possible. If you are able to pivot adequately, you may be able to motor out or use sails to further turn and sail out. Note, that if you are at an angle to the shoal, as the bow pivots toward deep water, the stern and engine may move into the shoaled area, risking damage to the engine if it continues to run.





11. If, after assessing the situation, the skipper determines that getting the boat off the grounding is not feasible, or would potentially create risk to the crew or vessel, the skipper should call for tow assistance.