

Owners Comments

Welcome to MokiMak, a San Juan sailing adventure!

Moki = Deer in Hopi Mak = good looken (slang)

Spedis Owl Logo = ward for sea monsters :)



MokiMak is a 2015 Seawind 1160 Catamaran. Seawind Catamarans are from Australia and are the most chartered cat in OZ. MokiMak is outfitted to be very easy to sail. We have made an effort to make her comfortable and fast. MokiMak has a self tacking jib, electric winch for the sails, and electric windlass with chain counter for easy anchoring. She also has a mast mounted camera for easy docking and port entry.

MokiMak is 38' long and draws only 3'8" of water. Her square topped mainsail has a special glide system to easily raise and lower the mainsail. The electric winch easily puts it up. Her self-tacking jib makes tacking very easy without handling any lines. The tri-fold saloon door lifts entirely out of the way and creates a huge saloon/cockpit area for friends and guests. The cockpit has a full enclosure available when requested in advance and the diesel heater creates a perfect living space for the cool mornings. She has three cabins and can sleep 8 with the saloon table turned into a bed.

MokiMak is a step up in performance with less windage than your normal catamaran. She has been customized for sailing in the San Juans. MokiMak has a complete Raymarine premium e-Series instrument package. Large e125 chart plotter, Tridata 70, Raymarine Radar and AIS. The electric windlass can be controlled from the cockpit or from the deck. The chain counter will tell you how much chain is out.

As of 2024 she has a new mainsail and a new foresail, new Sail bag, new Sail drives, a new stereo, and recently refurbished Gori folding props.

Please see the manuals on Mokimak for more detailed systems information.

We are excited to sail our boat and share her with our charter guests. We can be reached at svmokimak@gmail.com for questions and comments.

Fairwinds and Following Seas!

Table of Contents

1. Owners Comments	Pg 1
2. Table of Contents	Pg 2
3. General Info and Specifications	Pg 3
4. Safety Equipment	Pg 4
5. Sailing and Rigging	Pg 5
6. Anchoring	Pg 9
7. Docking	Pg 11
8. TriFold Door	Pg 12
9. Engines and Fuel	Pg 13
10. Instruments	Pg 16
11. Plumbing	Pg 19
12. Exterior Maintenance	Pg 21
13. LP Gas & Cooking	Pg 22
14. Webasco Heating	Pg 24
15. Electrical	Pg 25
16. Refrigeration	Pg 29
17. Dinghy and Outboard	Pg 30
18. Departure Checklist	Pg 32
19. Converting Salon table to bed	Pg 33
APPENDICES	
Appendix I - Screecher use	Pg 34
Appendix II - Raymarine Chartplotter/AIS/Vessel No Go	Pg 36
Appendix III - VHF	Pg 47

General Info and Specifications:

Length Over All (LOA) **11.6m / 38'0"**

Length at Water Line (LWL) **11.3m / 37'0"**

Beam Over All **6.5m / 21'4"**

Beam at Center Line **4.9m / 16'5"**

DISPLACEMENT **7,000 kg / 15,400 lbs**

Mast Height Above Water **17.9m / 58'9"**

Hull Draft **1.15m / 3'9"**

Rudder Draft **0.95m / 3'1"**

Underwing Clearance **0.71m / 2'4"**

Mainsail **57m² / 633ft²**

Jib **21.8m² / 242 ft²**

Screecher **54m² / 599 ft²**

Water Tank Capacity **700 litres / 185 gal**

Hot Water Tank **40 litres / 11 gal**

Fuel Capacity (2 TANKS) **320 litres / 84 gal Combined**

Black Water Holding Capacity (2 TANKS) **240 litres / 63 gal Combined**



FCC Call Sign: WD 13874

(For normal, non--emergency transmission, use "MokiMak". The FCC call sign will give the Coast Guard access to information about the boat in an emergency.)

MMSI Number: 367692810

(This is the number broadcast through the AIS transmitter and is linked to data about the boat. It gives other boats with AIS receivers, including the Coast Guard, access to this data.)

Coast Guard Official Number: 1261129

(MokiMak is Coast Guard documented. The Certificate of Documentation is included with the ship's papers and may need to be presented to various authorities, including the Coast Guard, assorted Sheriffs and miscellaneous customs and border officials. You should not be asked but MokiMak is exempt from Washington registration because it is documented and a charter vessel.)

Phone numbers

- San Juan Sailing office at 800--677--7245 VHF call channel 80
- Maintenance Epic Yachts, Edana at 305-240-1429
- Owners at 360-393-9350

Safety Equipment and Rudder Info

SAFETY EQUIPMENT

Life Jackets - Located in stateroom hanging lockers

First Aid Kit: A complete first aid kit is located in the port cabinet by the main head. Band-Aids and antibiotic ointment are located in the cabinet above the nav station. Please note any usage of these items so they may be replaced for the next Guest.

Flares. Visual day/night distress signals are located under the Port helm seat and in cabinets outboard of the nav station in bright yellow bag.

Lifesling The Lifesling on the starboard lifeline. Review the cartoons on the face of the small plastic case for procedures. The lanyard is secured to the boat so that tossing the floating harness allows it to tow behind the boat like a ski tow rope. Circling the person overboard will draw the recovery line near them.

Portable Fire Fighting Equipment

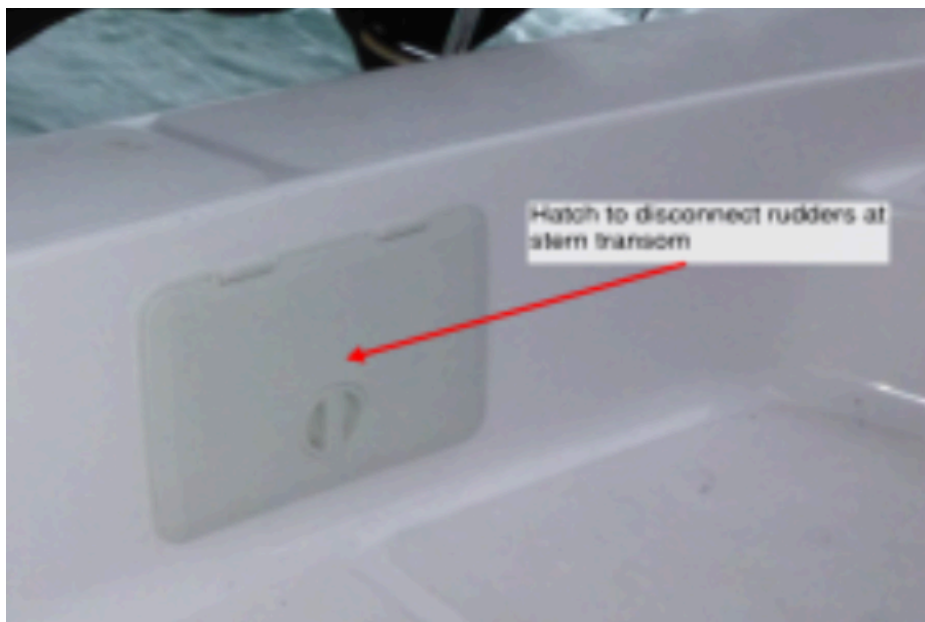
Portable fire extinguishers to be located in the following locations:

(STBD) - AFT cabin on bulkhead

(PORT) - Head under the sink

(PORT) - Bulkhead forward of the head

Rudders and Steering: If there is a problem with one of the rudders, open this hatch and separate them, each helm station will steer that rudder independently.



Sailing and Rigging

MokiMak is especially easy to sail. She features a self tacking, roller furled jib and single line slab reef mainsail for reefing. When tacking there is no need to adjust the lines, just turn and the boat will tack.

Three single line reefing points are provided and are controlled from the cockpit. Reef when the wind gets above 18 knots. If you are sailing in greater than 26 knots either put the third reef lines in or take down the main. Catamaran's don't heel so it is important to pay attention to the wind speed.

The Jib - is controlled and put away with the headsail furler control on the Starboard side. Two lines will do it all. MokiMak has a self tacking jib, occasionally when the wind is light she needs a little help tacking, just walk forward or loose the sheet to tack.

Mainsail – When going down wind use the traveler first to control the main and the sheet second. Keep the main from touching the shrouds by having main traveler fully out, center the traveler when tacking into the wind. Use the traveler to control the boom when reaching it is much easier than just the main sheet and standard with cats.

TIP: She's a catamaran, and so she doesn't heel. A monohull boat will let you know if you need to change sails. On a cat you need to monitor the wind. Adjust the sails based on the wind speed alone.

Winches

The primary winches on MokiMak is a Lewmar 45ST electric winch and two Lewmar 40ST self tailing winches for the jib sheets and reefing. Remember it is easy to overtighten the main halyard with the electric winch.

Cautionary Note About Electric Winches:

They are awesomely powerful and, because they replace human effort with electric power, they limit the feedback that you would otherwise expect if things are not right. It is easy to over tighten the lines.

MokiMak is set-up to be easily sailed by a small crew. There are, however, a few points to consider and are outlined below.

To deploy the main:

1. Open Sailbag (remove forward piece from mast, 1 zipper, 1 top buckle, 3 bottom buckles)
We store this in the salon side table with the tools and all other covers
Unzip the main bag, the loose flap gets tucked into the port side of the bag and is strapped down
2. Attach the halyard to the head of the sail (make sure the halyard isn't twisted)
3. Steer head-to-wind and maintain course.

4. Be ready to release the mainsail sheet when preparing to hoist the main.
5. Open clutch for the main halyard and all reefing lines that aren't being used
6. Then, use the electric winch to raise the sail. Put 4 wraps around the winch so the line doesn't slip, winches are very powerful. (Don't over-crank on the winch or the sail could possibly rip somewhere along the luff.)
7. Watch that the sail doesn't get caught in the lazy jacks
8. Release the topping lift, fall off and you're sailing! (Now you're ready to deploy the head sail.)

TIP: When Hoisting the mainsail, it can get stuck on the lazy jacks. Pay close attention with the electric winch it is easy for a batten to catch one of the lazy jacks and damage the sail. Just keep the boat directly into the wind. If you put the boom a little to starboard it will give you more room to stand on the cabin top.

When letting the mainsail down, it will flake nicely for the first 1/3 to 1/2 of the sail, but then will require a few tugs on the leech or luff to help flake the rest of the mainsail neatly into the lazy bag. Have the boom a little off center. Please don't stand on the solar panels. Remember to cleat the topping lift before dropping the sail.

MokiMak is a delight to sail. Her sail plan (a self tacking jib and fully battened square top main and a furling screecher for light winds). Once she has way, MokiMak is easily steered with small rudder changes. Her perfect breeze is 10-25 knots with no heel. Full sail can be carried in winds up to 18 knots. Don't hesitate to shorten your sails. We have found that it rarely reduces the speed and will make the motion easier. Remember, **"Reef early and reef often."** You can always shake them out if you decide you've been too conservative.

SAILING WIND ASTERN:

Do not fall off more than 150 degrees to the apparent wind. -Put the traveler out as far as possible and slacken the sheet slightly.

-Make sure the mainsail does not touch the shrouds; the rubbing of the battens will wear the material and cable very rapidly.

-Keep mainsail and jib up to 18 knots speed and put in one reef or more if the accelerations are sudden and strong or if sea conditions deteriorate.

Reefing and Sail Control

MokiMak has Single Line Reefing meaning one line taken up in the cockpit reefs both clew and tack of the sail. The Mainsail has three reef points. For many people who are new to multi-hull sailing, the first question they ask is "When do I reef?" When sailing on a mono-hull yacht it is easy to tell the boat is overpowered by excessive heel and a heavy helm. On a cat like the Seawind there is limited heel and the balanced spade rudders provide a light, neutral feel on the helm.

**WARNING: The following reefing wind strengths are recommended
18 knots - Mainsail First reef.**

22 knots - Mainsail Second reef. This isn't a perfect formula, are you beating into the wind or reaching? Use caution and don't put up too much sail, she sails just as fast in higher winds with a reef in the mainsail.

26 knots - Mainsail Third Reef.

Reefing the Mainsail:

"Reef early and reef often." Reefing the main is easy and can be done from the cockpit. Generally at 18 knots put in the first reef and you will find that it doesn't decrease performance. Here's how.

1. De-power the main (by heading up or heaving to).
2. Be sure the topping lift has been tightened to hold up the boom.
3. Let the tension off of the main sheet.
4. Lower the mainsail so that the reefing point you desire is about 24 inches above the boom and cleat off the main halyard to keep tension on the mainsail halyard when reefing down the foot of the main.
5. Pull in on the reefing line (using the winch if necessary) to tighten the sail, which will draw down the reef point much closer to the boom and "shape" the sail.
6. If needed, raise the main halyard slightly (with the winch).

Screecher

This sail is available for advanced sailors who have experience with them. Ask San Juan Sailing about the requirements. See full instructions in APPENDIX 1

The screecher is a light wind sail (15 knots or less) and needs special care when using and furling it.

TIPS:

1. Before you unfurl the sail, tighten the halyard. This needs to be very tight so that it will furl correctly.
2. You can sail up to 60 degrees into the wind. When reaching 135 degrees is the fastest point of sail, wing on wing will be slower.
3. Furling:
 - a. Furl when the wind exceeds 15 knots, it is very difficult to furl in high winds.
 - b. We generally will hold onto the clew so that it furls tightly.
 - c. We have had it unfurl in 25 – 30 knot winds and hour-glass. This generally shreds the sail and it will need to be recut.
4. Take the sail down and stow in winds above 25 knots.

The Traveler

The mainsail shape should be controlled with the traveler. Unlike many keelboats which have a vang to prevent the boom from lifting, a catamaran uses its mainsheet and long traveler to control sail shape. The traveler would normally be held in the center of the track while pointing into the wind and eased off as the boat's course falls off reaching. While running the traveler is

fully extended with the sheet on hard enough to keep the mainsail off the side stays. The traveler is trimmed by using the winch on the port side of the targa.

MokiMak has a particularly safe traveler arrangement on top of the targa. By locking off both traveler and mainsheet, the boat has an effective “preventer” so that the boat cannot accidentally gybe, while sailing down wind. Nevertheless, when you decide to gybe, ease enough mainsheet tension so that you can move and lock the traveler on the centerline. Next, as the boat is slowly turned, pull in the mainsheet so that it is on centerline as the stern passes through the eye of the wind, and then smoothly feed it out as the boat goes onto the new tack. After completing the gybe, ease the traveler back down and trim the sail with the mainsheet. This method will ensure safe, controlled gybing even in very windy conditions.

Tip: Practice with the traveler, it is more like a racing traveler so works easily and quickly. I use it more than the main sheet to control the boom. Watch the lazy line on the traveler and tighten it after moving the boom.

Reaching and Running

When running with the wind the traveler needs to be fully out and sheet the mainsail as required. **WARNING:** Please Keep the Mainsail off the Side Stays to prevent premature wear of the sail.

Anchoring

MokiMak carries a 45lb Manson Supreme anchor as standard with 80m (250') of 8mm short link galvanized chain. A second Delta 35Kg anchor with 10m of chain and 50m of rope is also included as a back up. It is located in the forward locker.

The scope to use in the islands is 4 or 5-to-1 for the highest water depth you'll encounter in the spot where you choose to drop anchor. Check your tide data...to know how much water you may lose and how much water you will gain as the tide floods in and ebbs out during your stay.

After you have paid out the suitable amount of rode, 2 minutes of reverse (in idle speed reverse) sets the anchor and tests its holding power. If you wish to sleep even better, throttle up to about 1500 RPMs in reverse for another 30 seconds to prove to yourself that the anchor is set well! For storm conditions (sustained winds of 25+ knots), extend your scope to 6 -to-1, provided you have room to leeward. Otherwise, set two bow anchors (using the secondary anchor, chain and rode) in a v-type pattern for extra holding power.

The stern tie line is a 600 foot reel of line for stern ties in the center bow locker. (Please do not cut the line; it is all needed for certain places in Desolation Sound.) When using the stern tie keep it tight to keep the boat from swinging, contrary to how you use just one anchor. We like to tie from stern cleat to shore to stern cleat depending on the anchorage to create a bridal system.

Anchor Windlass

Power is received from the engine start battery. Always operate the windlass while the engine is running! Otherwise, the windlass will drain the start battery. The breaker (at the chart table) is either on for the windlass or on for the electric winch.

Deploying the Anchor.

With an electric windlass this is easy. I recommend that you pay out the chain from the bow. There are up and down buttons at the bow and at the port helm. There is a chain counter at the helm. The chain is marked at 5' intervals with yellow line. If the chain counter isn't at zero it can be reset, see instructions in the chaincounter cap.

Anchor Bridle

MokiMak has a Mantus anchor bridle system. It is easy to deploy with the Mantus hook, no shackles to mess with. Slip it over the chain, move up one link and slip the keeper on. The bridle will provide strain relief on the anchor and help keep the boat from yawing. This is a long bridle and will add 25' to your position so take that into account when you are deciding where to anchor.

TIP: Approach your anchor drop position headed into the wind/current, you will be well set up to drift back as you deploy rode. You can usually tell what the drift is by looking at other boats at anchor. If you are first in, just coming to a stop and seeing what happens works well. I set a

waypoint when dropping the anchor, normal scope in the San Juans is 4 - 1 but watch the tides they can be up to 8' more in the Gulf Islands. Set the anchor alarm!

Retrieving the Anchor

When retrieving the anchor, **NEVER use a windlass to pull the boat forward to where the anchor is set.** (The windlass is not designed for it, would be a large draw on the batteries, and might cause serious damage to the attachment base.) Instead, head the boat under power toward the anchor while using the windlass to take up the slack in the chain.

There are saltwater and freshwater deck washes at the starboard trampoline. Salt is on the port side and fresh on starboard. The hose is stored in the starboard locker. **The Washdown pump needs to be off** so that the hose fitting can be attached without pressure in the system. Please wash off the anchor and chain every time it is pulled up. The anchor chain dropping off of the gypsy sometimes bunches up under the windlass and you might need to push it down several times (with a boat hook) to the bottom of the chain locker to prevent the chain from jamming in the windlass.

Securing the Anchor.

Once the anchor is on the bow roller, be sure to secure the anchor with the “keeper” line. (The chain on the gypsy on the windlass should not be the only thing keeping the anchor from unexpectedly returning to the sea bottom!)

Mooring Buoys

Moorage buoys in the cruising area have broken loose from their anchors or drifted from their original locations. Do not assume that a moorage buoy will hold your boat, be appropriately spaced from other moorage buoys or be placed in water of adequate depth. **Set an anchor alarm!**

TIP: Turn on the bow camera, flip it on and easily see the buoy. Approach the buoy headed into the wind/current, since MokiMak is a cat you can also get the buoy from the port stern step and walk it forward.

Anchor Light

Please leave it on all night in an anchorage. (It won't deplete batteries.)



Docking

When you call into the marina, tell them you have a 38 ft long Catamaran 22 feet wide and 4 ft draft and that you would like an end tie or side tie. We have had no problem finding spaces to tie up to these past years.

MokiMak docks in reverse very easily. But first power very slowly: Power right a second and Neutral and repeat to turn left and power left a second and repeat to turn right. Power both a second and neutral to stay straight. Do the same in reverse and pause in neutral. There is no prop walk. If you need to spin, put right forward and left reverse to spin to the left. I bring the boat in parallel to the dock and adjacent slowly so there's no damage to the boat. It's amazing how little power you need with two engines, pay attention to the wind and current.

MokiMak has a mast mounted camera that you can use to see the front of the boat from the helm station to help with docking and entering the marina.

If the docking is tighter, I come in adjacent to the boat in front and then back with my controls. I'll come in at a 45 degree angle toward a good spot on the dock. I get very close to the dock and have a crew jump off the stern with the Port stern dock line and IMMEDIATELY FULL Cleat it to the closest cleat. Use the orange bumper for a pivot. Now you can use predominantly Starboard engine to bring the bow to the Port side, close to the dock and now you can cleat that line. Now the stern side will be out too far again, which you can fix with port throttle forward and starboard throttle reverse to spin the stern to the dock so you can cleat her tighter



Cockpit Tri-fold Door

The Tri-fold door is an amazing feature of Seawind Cats. With the full enclosure it creates one large space of saloon and cockpit and acts like a sunroom. The three doors fold together and then raise up against the Cockpit roof. It offers complete unobstructed access from the cockpit to the interior when in the fully open position. With two people we open this in less than two minutes. There is a bungee latch at the top to keep the doors open. Please don't open while sailing during storms.

TO OPEN:

- 1) Open, fold back and bungee the two outboard doors.
- 2) **Make people aware that the doorway area is to be kept clear during the door raising procedure.**
- 3) Raise the middle door floor barrel-bolts and attach stainless lifting bracket to the fwd face of the door.
- 4) Ensure that the lifting bracket pin is pushed down to hold the bracket securely in position.
- 5) **Lock the rope jammer into the CLOSED position.**
- 6) With 4 wraps around the winch and 1 on the self-tailer, wind the door up into the targa roof.
- 7) Once raised, slide the safety bar down over the foot of the door.
- 8) With the safety bar down and the rope still on the winch and held, momentarily release the jammer to ensure the load is on the safety bar, keeping it in position.
- 9) Ensuring the jammer is closed, you can now release the rope from the winch.
- 10) **WHILE- EVER THE DOOR IS OPEN, THE SAFETY BAR MUST BE DOWN & HOLDING THE DOOR WITH THE ROPE JAMMER ON.**



Engines, Fuel and Props

Two 29 hp diesel motors power MokiMak

Starting

1. Check the engine compartment for leaks.
2. Look over the stern for kelp, logs or branches that could foul the propeller.
3. Make sure the gearshift is in neutral
4. To start the engine, push the ignition button (circle with a line at bottom button) this will start the electric to the engine. It will beep, when it stops push and hold the start button (top button) for several seconds until the engine starts.
5. Expect the engine to start in 5 seconds or less. If the engine doesn't start after 10 seconds of cranking, push the OFF button, Wait 15 seconds and try again.
6. After the engine starts, release the button, walk to each side of the boat and check for water gurgling out the exhaust ports. There is an exhaust alarm if the motors overheat
7. While the engine warms, check your fuel level. **Please allow 5 minutes of warm up before placing a load on the engine.** It is very hard on a diesel to be placed under load when cold.

Proceeding in Forward / Reverse

When you push the throttle levers forward you will be in gear. **To keep the transmission "healthy", please remember to pause 2 seconds (say "one and two and")** in the 10 o'clock neutral position when shifting from forward to reverse and vice versa.

Twin 29 HP Yanmar and sail drives are very reliable. Cruising speed is 7-7.5 knots at 80% throttle (2400 RPM. Please do not exceed 2500 RPM for anything but short emergency use because it's hard on the diesel and fuel consumption goes WAY UP (at very little increase in actual speed).

We generally turn off one engine for cruising or motor sailing, the second engine only adds about 1 - 2 knots of speed. NOTE: The current props and saildrives will "hum" a little around 1800-2000 RPM depending on water conditions. This is normal and can be addressed by raising or lowering speed as desired.

TIP: When sailing without the motors on, put the transmissions in neutral and let the propellers freewheel. With folding props there is much less drag. Leaving the transmission in forward will void the saildrive warranty.

If you sail under power and go into neutral right before turning off the engine, the blades may not close. The shaft has to be stopped for a second to prevent the propeller from spinning and to close due to the water flow when the boat is moving.

So, turn the engine off and make sure the engine has stopped completely before placing the engine in neutral. The other option to guarantee the shaft has stopped is to, while sailing with

the engine stopped, place the control lever into reverse. This will allow the folding propeller to fold closed and stops the output shaft from rotating. After this operation, put the control lever back into neutral. This will stop the Gori propeller from auto rotating.

Engine Overheat

If the overheat buzzer sounds while the engine is running, turn it off immediately. Check the water strainer to see if it is plugged with eel grass.

We have added clear deck plates at each strainer to make it easy to see them. To clear the eel grass from the raw water strainer, simply twist off the screwtop and extract the eel grass. **Be sure that the lid is fully secured.** If there is an air leak it will overheat again. If the above fails to solve the problem, call San Juan Sailing for assistance.

NOTE: The Yanmar 29hp diesels do not support the temperature gauges or the engine hours on the cockpit displays! Engine hour meters are in the saloon below the Webasto control.

Fueling:

Please be very careful when fueling. **Never allow maximum flow from the filler hose.** If you do, the fill tube will surge and diesel will spill from the fill hose (this seems to be especially true on the port side). Use the funnel in the port helm station seat to help with the overflow problem. Take one of the diesel diapers either from the dock or engine compartment. **It takes only a few drops of diesel fuel in the water to create a sheen and subject you to a Coast Guard fine. Fill slowly and carefully. Be careful with the diesel it will stain the upholstery.**

Put your ear down to the fill hole and listen to the diesel flow. When the pitch changes and gets higher and higher, the tank is likely full and you're now filling the hose between the tank and the fill hole. **Avoid a fuel spill – STOP! Check the fuel gauge.** If the gauge is not on "F", continue filling. When you think you're finished fueling, check the fuel gauge one last time to make sure it's reading "F".

Note: Unlike automobile fuel gauges, fuel gauges on boats are notoriously inaccurate, especially on the low end. Open the bilge hatch and you can see the diesel level.

There are separate fuel tanks in each hull, with a total capacity of 84 Gals (42 gal ea). The fuel tanks are located under the cabin soles and are accessed through the lift out floor hatches. There is no cross piping between them. The port engine runs the Webasto heater and will use more fuel than the starboard engine if you run the heater

We also have an oil water separator on each engine with alarms (at the nav. station). If one goes off we have spare filters under the starboard saloon seat.

How to operate the 3 blade Gori folding propeller.

The 3 blade Gori propeller, has 2 pitches. "Normal" and "Overdrive". "Normal" mode is used when motoring in rough waters or against the current, where you need the full horse power, and full rpm. "Overdrive" mode is used when motoring in calm waters, or when motor sailing (lower rpm.)

DO NOT go full rpm. In "Overdrive" for a long period of time!

NORMAL DRIVE

In order to start up in "Normal" the boat either has to be at a stand still with the propeller folded, (1st. maneuver), or be moving forward through the water.

SWITCHING FROM OVERDRIVE TO NORMAL When in "Overdrive" and moving forward thru the water, you switch to "Neutral", and due to the boat moving forward thru the water, the propeller will/should fold. Go back to "Forward", and the propeller will open in "Normal" mode. To make sure this happens, you can put the lever into "Reverse" just for a split second, before switching back to "Forward" while the boat is still moving forward through the water. When stopping the shaft from rotating, the propeller will fold immediately, and open up in "Normal" mode when switching back to "Forward"

Instruments

Raymarine Tridata 70 Depth - Speed - Auto Pilot

- 4" over-sized LCD display with 160° viewing angles
- 43mm digits in full screen mode
- AIS repeater and display of AIS targets
- Data views include: Wind, Speed, Depth, Tridata, Engine (NMEA 2000), Environment (NMEA 2000), Fuel (NMEA 2000) and Navigation.

TIP: If the digital knotmeter shows a reading of "0.00" while underway, the impeller is most likely clogged with a piece of eelgrass or it is beyond the depth it can read. Sometimes it will float off overnight. You can try removing it by traveling for a short distance in reverse. If the knotmeter is temporarily "out of service," the GPS input to the chart plotter provides an alternate speed indication called SOG (speed over ground).

Depth Indicator

The Depth Indicator is calibrated to the water level and you need to account for the depth of the boat (3.5') , tides etc.

IMPORTANT: The key to avoiding rocks is NOT the depth sounder – but knowing where you are at all times. Rocks are the greatest navigational and safety hazard in the islands – have a bow watch if you have any concerns about the anchorage.

Chartplotter 2015 Raymarine e Series 125 (See appendix for frequent operations)

MokiMak is outfitted with a Raymarine E Series HybridTouch display. This is easy to use and outfitted with the latest Navionics charts of the San Juans. We love the display and can customize the screen to show multiple instruments, camera and chart while coming into port, etc. There is a 3 ring binder manual in the bookshelf.

Tip 1: Substantially all of the information on the standard marine charts can be displayed on the chartplotter but all such information is not necessarily displayed in all views. In particular, rocks and other small, localized hazards will be displayed when the chart is zoomed in but may be lost if the chart is zoomed out. If you are using the chartplotter to identify and avoid these kinds of hazards, **make sure that the view is zoomed in to close range**. You can then zoom back out for navigational purposes but remember that the hazards are there, even if they are no longer displayed. More than one mariner in the cruising area has been surprised to get up close and personal with a hazard that was not on the display he was viewing at the time.

Radar Raymarine 2015 Raydome

4kw Awesome color radar display

AIS Raymarine 650

MokiMak is equipped with an Automatic Identification System transceiver. This system will show all large (including all Washington State ferries) and many smaller commercial and recreational vessels on the chartplotter screen as triangles. The triangle points in the direction that the vessel is moving or last moved and, if you move the cursor to the triangle and click, the system will give you additional information (such as name, size, speed, etc.) about the vessel. Unlike radar, AIS information is not limited to line of sight. It is therefore particularly useful if you are about to round a point and want to know what is on the other side. AIS only displays data from vessels that are AIS equipped. Large ships are required to carry AIS but smaller commercial and recreational vessels are not. Although AIS is increasing rapidly in popularity, most recreational and commercial vessels are not AIS equipped and therefore will not register on an AIS display.

VHF Radio (See appendix for frequent operations)

When you turn on the vhf and hit the clear button to be able to go to channels, why they programmed it this way is a mystery. To listen to the weather reports (should be done in the morning and evening and push the "WX" button on the radio. Scan the weather channels for the one with the best reception before sailing in the morning and prior to anchoring for the evening. This is generally a light wind region but weather changes can be sudden. Listen for the "inland waters of western Washington" Both cover the San Juan Islands and the Canadian Gulf Islands. You will also hear "Strait of Juan de Fuca" (south of the San Juans), "Georgia Strait" (north), and "Rosario Strait" (runs through the eastern part of the San Juans).

TIP: A current weather forecast should be obtained each morning and updated whenever weather appears to be a potential issue. These days, current detailed weather information is available over the internet so, if you have a connection, it may be easiest to use that method to obtain current weather. An excellent source is www.atmos.washington.edu/data/marine_report.html. Listen for the report on "Inland waters of western Washington" which covers the San Juan Islands and the Canadian Gulf Islands. You will also hear "Strait of Juan de Fuca" (south of the San Juans), "Georgia Strait" (north), and "Rosario Strait" (runs through the eastern part of the San Juans). In Canadian waters, listen to the Canadian weather station which also transmits warnings of military area activity, such as area Whiskey Golf (WG) outside of Nanaimo.

You should monitor channel 16 (the hailing and distress channel) during your cruise. You may save a vessel or a life. You may hail vessels on channel 16, but after establishing contact on channel 16, ask the skipper of the other boat to switch to working channels 78, 79 or 80. San Juan Sailing monitors channel 80 during office hours (closed Sundays). If you need a review of VHF radio protocol, you'll find information located in the onboard Charter Guest Reference Notebook.

In case of a distress where you can no longer stand by the radio to pass your mayday, use the red distress button on the radio. First flip up the cover, then press the button. GPS input is automatically coded into your signal.

Cellular Telephones

Cellular coverage, including data, is generally good in the cruising area but there are areas (for example, most of Eastsound) in which it is spotty or nonexistent and specific coverage depends on the carrier. You may wish to alert your friends, business associates and relatives of this fact and advise them that their failure to reach you may not be due to your new abode in Davy Jones' Locker.

If you are sailing north or west of the main island group, it is likely that default coverage will be from Rogers in Canada. As they will very likely tell you by text message if your phone is so equipped, your phone contract may not include foreign coverage and prices for the service may therefore be greater than you might otherwise expect. In these areas you may wish, at a minimum, to disable data to prevent unwanted downloads at high prices.

Cell phones and other 15vDC devices can be recharged using one of the cigarette lighter plugs (located in each cabin and in the electrical panel) or any of the AC plugs if shore power or the inverter is on. If you didn't bring a cigarette lighter recharge cable and you are not on shore power, you can use the small inverter in the nav table. See the Inverter section below. You can also recharge your phone or other device using the USB port on the sound system but the system has to be on for that to work.

Compass

The Fluxgate Compass and Autohelm Actuator are located in the port aft engine room. The Autohelm Controller and Seataalk cabling are located in the compartment ahead of the port helm accessed by removing the four screws of the port toilet vanity cabinet. Access to the starboard instrument cables is through the aft cabin hanging locker.

Plumbing

Fresh Water System

There is one water tank with a total capacity of 185 US gallons under the saloon settee. The switch for the fresh water pump is located at the nav station control panel,

The tank is filled via the screw-on filler cap located on the forward deck in front of the mast. The tank is fitted with an overflow and air vent. **DO NOT PRESSURIZE THE TANK WHEN FILLING.**

A fresh water level indicator is located in the Navigation area Victron display on the “Tanks” page. You can also check the water in the tank by taking the center port saloon cushion off, the tank is to the right and you can see the level

The fresh water system supplies the heads, galley sink, shower in port head, wash basins in heads, transom shower off the Targa (port side) and a bow deck wash.

The sink and wash basins drain directly overboard. There are no shut-off valves on these outlets because they are well above the waterline. The floor drains in each head are pumped out via a shower sump pump located under the floor in each head. This pump operates when the pull switch is out. Regular checks should be carried out to ensure that there are no blockages from hair etc.

Hot water is provided to the galley, heads and transom shower from a 40L/8.8G storage tank heated by exchanger from the port engine, from shore power when connected, or the Webasto heater.

MokiMak has push--button, electric flush, fresh--water heads. Wet the bowl before use with the rocker switch pressed one way, then evacuate the bowl by pressing the rocker the other way. Travel with the bowls dry. There are two buttons. The rocker switch wets the bowl (left side) and evacuates the bowl (right side). The single switch does both, in sequence, but uses more water. Use either one.

With electric toilets press the operate button for around 3-5 seconds to ensure all waste is flushed into the holding tank.

Offshore sailors have a rule: “Never put anything down a marine toilet that hasn’t been eaten first.” And that, of course, includes feminine items. They simply deposit soiled toilet tissue (and feminine items) in the wastebasket with a liner bag, but not down the toilet. San Juan Sailing highly recommends that you follow this rule.

Tip: Don’t swallow cherry pits they will clog the macerator

We have installed a holding tank monitor for both heads, it displays at the Nav. Station.

The valves to drain are below the tanks, open the seacock first, then the valve at the tank, close in reverse. The tanks can also be pumped out from the deck ports, each tank has its own pump out port. Ask SJS about the holding tank dumping requirements for sailing in the San Juans.



Bilge Pumps

Electric Bilge Pumps are located centrally in the keel sump area. For these Pumps to operate the Bilge Pump Circuit Breaker Switch on the Main Switch Panel must be on. These switches are directly connected to the House Battery and do not depend on the Main House Battery Switch. **These switches should always be left in the AUTO position.** In addition to Electric Bilge Pumps, Manual Bilge Pumps capable of removing 50L/min are located in each hull. As well as manual bilge pumps in the bilge there are 2 manual bilge pumps located at the side of each helm these can be operated by a handle and have a flow rate of 54 l/min

WARNING: Check the function of all bilge pumps at regular intervals. Clear pump inlets from debris.

Bilge Pumps. The electric bilge pumps are directly connected to the house batteries and may be disabled by circuit breaker at the Saloon Electrical Circuit Box. A bilge pump running continuously without discharge may be caused by either debris blocking the inlet or debris blocking a non return valve.

Emergency Bilge Pump: There are handles and manual bilge pumps located inboard of each helm station.

Exterior Maintenance and Equip

EXTERIOR MAINTENANCE

MokiMak has a cockpit enclosure available upon request.

If the weather is cold, leaving the rear panels on significantly reduces wind chill without interfering with sailing requirements. We have sailed in 20 kt winds with the side panels and the connector off.

When docking or anchoring I usually unsnap the port panel and you can stand above the cockpit roof.

TIP: The bimini's plastic "glass" is vulnerable to scratching from dirt and salt crystals. When salt spray dries on the glass, tiny salt deposits are left behind and tend to obscure your vision.

There is a salt water wash on the port side of the cockpit (flip off the salt water breaker at the nav. station to take the pressure off the line first) and a fresh water wand (hot and cold twist the end piece) at the back on the port side targa support.

MokiMak has sun shades that snap on. The ones for the operable windows may take some patience to put on.

There are solar fans at the starboard and port hatches (port is currently inoperable and will be replaced in the offseason).

Cooking Appliances & BBQ

Propane Systems Stove and BBQ

The propane stove has three burners and an oven with a broiler. For your safety, please follow these procedures:

- Open the valve at the propane tank all the way open. This is in the bow locker. There are two tanks
- Make sure all stove control knobs on the stove are in the “off” position.
- Turn the electric solenoid switch located under the cabinet next to the refrigerator. A green light will be off and a red light will indicate it is on.

- Push in the stove control knob for the burner you want to use and turn to the left to high, while also pressing the electric ignition button (you will hear it sparking). The burner should light immediately, unless the tank has just been renewed, in which case it may take some seconds to push air through the pipe. Hold the knob in for 2--3 seconds (warming a thermocouple) and release. You may then operate the knob like a normal stove.

- When finished, shut off the burner(s), then shut off the solenoid switch (under the cabinet next to the refer). What little propane remains in the line from the tank to the galley is insignificant, and even if this tiny amount of propane were to leak into the cabin, it would not cause a problem. No need to shut off the propane tank during the day.

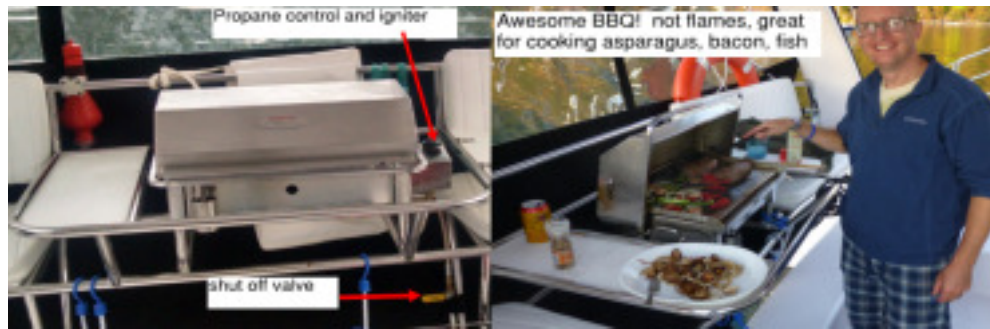
- Marine ovens are a little finicky, The oven has a latch to open the door on the upper right, if you pull without opening the latch you can break the handle. To light the oven push in the knob, turn it and hold for 30 seconds until it lights. If it fails to light try lighting the burners for a minute or two there may be an air bubble in the line. If you want to use the broiler leave the oven door open or it will shut off.

- At night, it's recommended that you turn off the propane tank with its hand valve. That way, should the solenoid valve fail, there's no chance that propane will leak into the vessel. The propane tank is located in the propane locker in the forward locker in front of the mast. Any gas leaking there will move down, out, and away from the boat. For propane to actually flow to the stove or the barbecue, the tank valve must be opened at the tank. The solenoid switch for the system is located under the cabinet next to the refrigerator. This must be turned on for the propane to fuel the stove and BBQ. There is a Propane alarm system on the boat if there is a leak.

Australian BBQ

I was a little surprised with the Australian grill. It is a solid surface of stainless steel grill. After cooking on it, I'm sold. Easy to clean, no grease fires (has a grease catchment system), cook vegetables and meat at the same time. Cook breakfast, pancakes and bacon all at once. If you want to add some smoke put the chips in an aluminum pouch with some holes in it. This thing rocks! (valve to turn on is under the unit). Please clean before you leave the boat. Cleaning

scraper, spray and scrubber are below the grill. Deglazing the grill with water when it's hot makes cleanup very easy. The scrubber and pumice stone will do the rest.



Microwave

The microwave operates on AC power only so it requires either shore or inverter power. Except for the power issue, it operates like any other microwave.

Webasto Heating

WEBASTO HEATER

The diesel-fired Webasto cabin heater will make the interior “toasty” within 10--15 minutes. The heater control is located on the port wall down the stairs. **Press the flame symbol “on” switch and it will start. (it will run for one hour)** There are three fan heaters, main cabin, port and starboard berths. Each fan has two speeds, low is most efficient, and quieter. The heat is dry, comfortable, and on those rainy days or cool evenings, makes a huge difference in cruising comfort! The temperature is controlled by turning the heater and/or the fans off or on. The Webasto also heats the hot water tank so there is no need to run the engine for hot water.



ELECTRICAL

MokiMak has both a 12V DC and optional 110/240V AC electrical systems. The 12V DC system consists of 660 amp-hour House Battery Bank located under the saloon settee port side and 700 CCA Motor Starting Battery also located under the saloon settee.

MokiMak has almost 700 watts of photovoltaic panels on her. This provides enormous electric power even on cloudy days you will see the batteries being charged.

She has two Mastervolt systems. They are located in the port cabinet next to the nav. Station. The first one is for shore power and for stray current protection (isolation transformer) the other is the inverter/charger. Please leave both of them on all of the time

The battery banks are switched "on" by a Battery Switches located in the port Navigation area. The House Battery switch must be on for any 12VDC facility except automatic bilge pumps. The Start Battery Switch must be "on" to start and run either motor.

TIP: Running most 110v appliances (including the microwave and any hairdryer you may have brought along) consumes a relatively large amount of electricity. With shore power hooked up, you can run most installed or plug-in appliances without worrying about power consumption unless you are running more than one at a time. Just be aware that, if you are using your hair dryer on high and someone starts the microwave, you may trip a breaker. If you are away from the marina and using the inverter, be aware that sustained use of 110v appliances will draw down the house batteries quickly and may require you to recharge from engine power.

Battery Charging

Each Motor has an independently Regulated 80A Alternator directly connected to the 700 CCA Start Battery through the Start Battery Switch.

The House Battery Switch does not need to be on for the Solar Panels to be recharging. We have found MokiMak to be pretty independent with the Photovoltaic panels and have not needed to run the engines. The BEP panel will show the battery charge and whether it is charging or drawing power.

Shore Power

The Seawind 1160 is fitted with 110V 30A AC Shore Power with inlet located at the port helm position (cord is under port helm seat). Double General Purpose Outlets are located in the navigation, galley and optional other areas for small appliance operation. The power cord is under the port helm seat. Turn off the shore breaker, connect the cord to the dock and boat, look for the blue led light at both plugs to be sure the power is connected.

Troubleshooting

The start battery switch operates a high current relay that connects the start battery to both engines. If the engines are receiving no power the remote operation of this relay may have failed.



Electrical Switch Panels

All switched circuit breakers required for normal operation such as lights and refrigeration are located on the DC Switch Panel in the Navigation Area. The House Battery Bus Switch must be on for operation of these circuits.

Master and other circuit breakers in the Electrical Switch Box located below the Saloon port settee are normally left on. Stereo Memory, Port and Starboard Bilge Pump switch circuits are operated through the Un-switched Master Circuit Breaker. High power electric winches operate through a large circuit breaker on the aft side of the Electrical Switch Box accessible under the settee cushion beside the coffee table. All other circuit breakers operate through the Switched House Master Circuit Breakers.

Battery Charging

While multiple independent regulated battery charging sources are provided directly by the solar panels, each engine alternator when running, or optional shore power or generator chargers when connected, if the battery is very low then the only way to restore charge is charging for several hours. The best source for prolonged charging is shore power.

Lighting

Lights:

Interior Lights: All interior lights are LED.

The saloon lights have a dimming capability (Click and hold to have the lights cycle brighter and dimmer, release at the desired brightness) and can be a little finicky when turning on (**click quickly**), especially if you dimmed them way down. You may have to turn them on once or twice to get them to work.



Running & Steaming Lights

Please be advised that night passage making is not permitted under terms of the charter agreement with San Juan Sailing. Use in cases of reduced visibility (like fog or on the rare days in the Pacific Northwest when there's heavy overcast).

Anchor Light

Should be on all night in an anchorage. (It won't deplete batteries.)

Misc Lights

Galley

There is a LED light under the upper cabinet

Port Engine

LED light above the hatch into the compartment

Starboard Engine

LED light at the engine compartment

Nav. Station

LED under the upper cabinet

Refrigeration

MokiMak is fitted with a Super-efficient Vittrifigo 130 litre front opening fridge and a two compartment ICEER 60L electric eutectic freezer

Fridge Operation

To turn the fridge on, use the circuit breaker located at the nav. station.

Freezer Operation

The freezer can be turned on using the circuit breaker at the nav. station. Temperature adjustment of the freezer is self-setting to approximately -12°C . After first switching on the freezer, it will take between 10-16 hours to pull down to normal operating temperature. When left on the freezer fan will run at varying speeds and will switch on and off.

TIP: turn them off the night before you return.

Troubleshooting

Refrigeration and Freezer circuit breaker switches at the Switch Panel in the Navigation Area and House Battery Master Switch need to be “on”.

Dinghy, Outboard

MokiMak has an Inflatable Inmar 11 ft aluminum bottom dinghy that will comfortably carry 5 people.

Please take special care when beaching the dinghy (refer to the dinghy beaching procedure in your charter guest book). Most of the beaches you will land at are strewn with barnacle covered, bottom-slicing rocks. When approaching the shore, weigh the dinghy aft by leaning or moving the crew toward the back of the dinghy. Then offload everyone over the bow. Lift the dinghy above barnacle height using the hand lines on either side, and set it down gently on the beach. Also remember to secure the painter under a rock or to a large driftwood log – we have very large tidal fluctuations (so your dinghy won't float away).

I generally approach MokiMak on the port side, there is a bow eye that will damage the gelcoat if you hit the transom. When lifting the dinghy be sure the block and tackle isn't twisted, it is much harder if it has twisted itself up. **Raise the dinghy as high as it will go (the blocks should be about 6 inches apart).** I will tie it off to the targa hand holds to secure it and keep her from moving back and forth while sailing. There is an additional cleat on the transom to secure the dinghy during passages.

Outboard

Mokimak is equipped with a 4--stroke Yamaha 6 horsepower outboard. This is the lightest outboard available (it weighs 57 lbs.)

The engine has an internal gasoline tank and is also fed from an external tank through a hose that clips on the engine intake. Hooking the system up is straightforward but, if you are in doubt, ask a member of the SJS staff to go over it with you as a part of your brief. DO NOT add oil to the gasoline mixture – it uses straight gasoline.

San Juan Sailing recommends that you leave the outboard attached to the dinghy transom unless weather conditions dictate otherwise. Under most circumstances, there should be no problem with this practice.

To Start

- The outboard has an internal fuel tank and an auxiliary. I generally use the auxiliary.
- Open the fuel tank vent (small screw in the center of the fuel cap.)
- Make sure the gear lever is in neutral. (If you can't pull the start cord, it's not.)
- Pull out the choke knob and press the red knob to prime if starting a cold engine.
- Make sure the U--shaped kill clip (with the red lanyard) is clipped into the red shut--off knob (forward low on the outboard).
- Turn the throttle handle to "slow".
- Pull the cord until it starts. You shouldn't have to pull it more than 2--3 times. Once the engine is running, if the choke is out, push it back in as necessary to keep the engine running smoothly.

To Shut Off

- Shut the outboard off by pushing in the red shut--off knob (where the kill clip is clipped in). Or just pull the red lanyard until the clip pops off.
- To avoid prop damage when approaching shore, shut the outboard off and then raise the shaft out of the water before you reach the shore.
- If the engine is not going to be used for some time, close the air vent on the fuel tank and disconnect the fuel hose from the engine.

TIP: If the outboard is running and you're heading toward shore, and the engine suddenly quits, it's usually that someone has forgotten to vent the fuel cap.

Departure Checklist

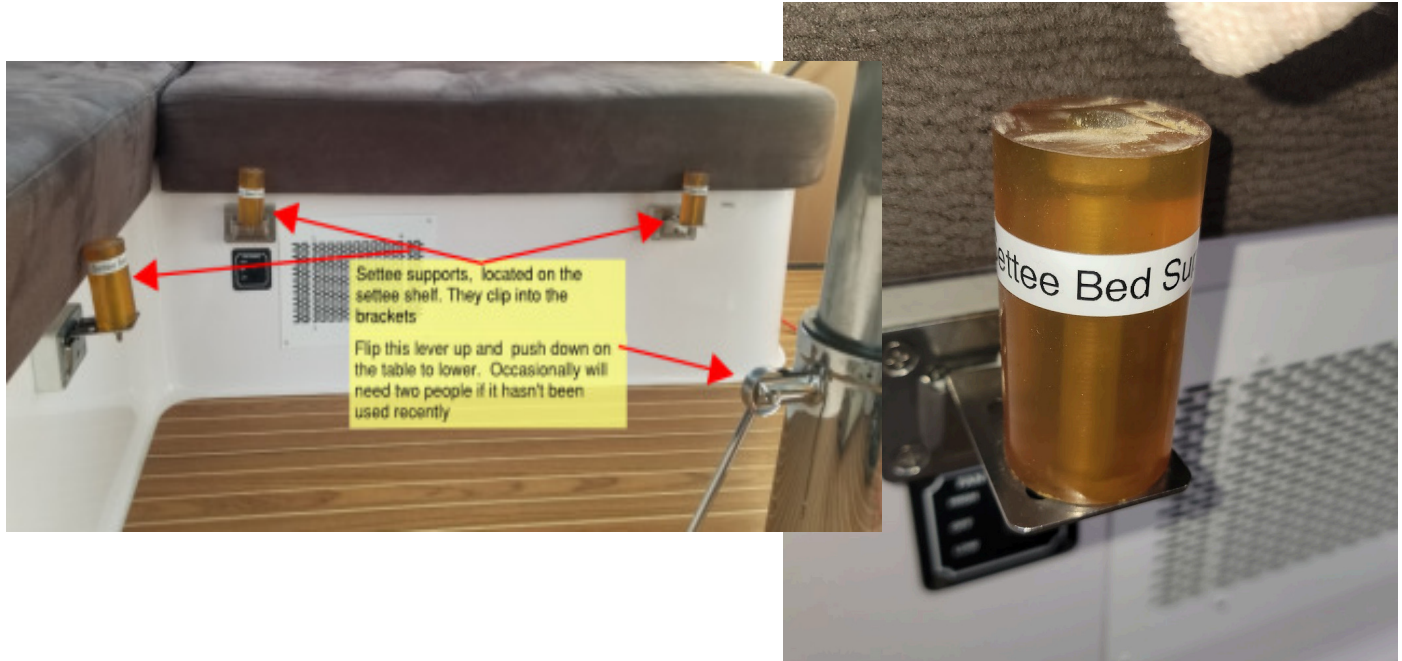
Please avoid suitcases by packing your gear in a pliable bag. Suitcases will be difficult to store onboard and have a tendency to damage the wood surfaces on a boat.

Items to consider bringing for your charter:

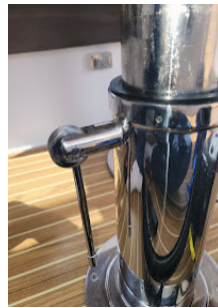
- Wind-breaker
 - Layered clothing (polypropylene or capilene long underwear)
 - Fleece top and pants
 - Warm cap or hat
 - Sunglasses and if applicable reading glasses
 - Bathing suit
 - Sunscreen
 - Rain gear (any PVC will do - - it need not be expensive)
 - Soft-soled shoes with non-marking soles
 - Camera
 - Personal toiletries
 - Food and drink for meals on board plus galley staples (eg. spices, plastic wrap, coffee/tea)
- Suggestion: Sandwiches and snacks make for a great lunch.
- Cold cereals and fruit are easy for breakfast
 - Steak, chicken or fish can be easily barbecued on board for dinner.

Converting the Salon Table to a Bed.

Step 1: Locate and install the 3 Settee Bed supports. They are stored in a fabric box just forward of the settee near the interior Stbd Speaker.



Step 2: move the table locking lever from the Down (locked position)



Step 3: Apply pressure to the top of the table to get it to move down. **It may require all of your weight** for the last couple inches but should rest on the bed supports. You can then lock the bed.

Step 4: There is a cushion stored in the locker just forward of the nav station. You can slide this onto the table using the pocket on the bottom side of the cushion.

Step 5: To convert back, reverse these steps.

Screacher Rigging and Unrigging

August 2020

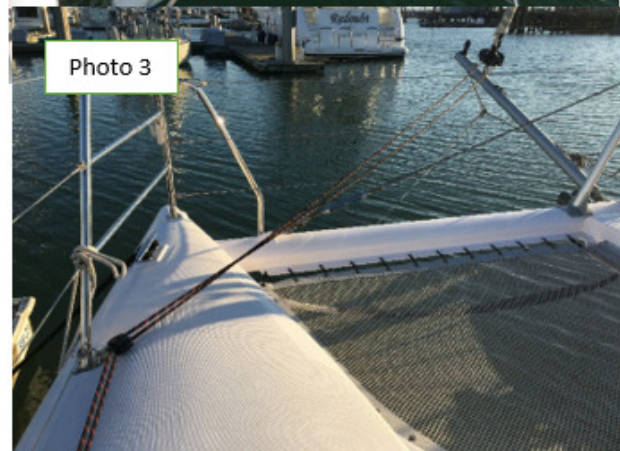
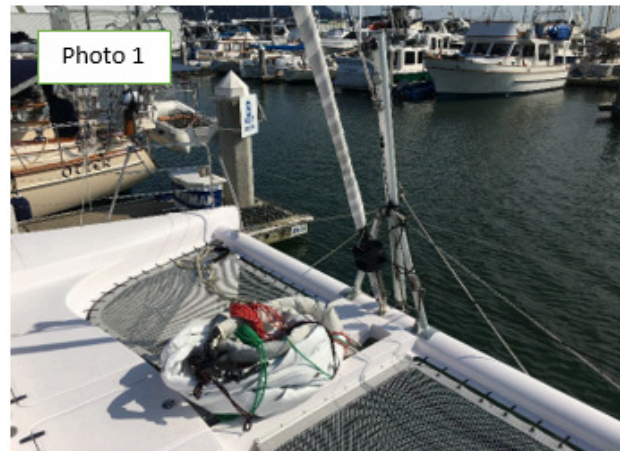
MokiMak's screacher is to be used only by qualified sailors with spinnaker experience that have been approved by San Juan Sailing staff. Refer to the MokiMak Owner Notes section 5 - Sailing and Rigging, for instructions on how to use the screacher.

Photo 1 shows the screacher completely unrigged and the bow sprit in the stowed position.

Photo 2 shows the screacher hoisted, bow sprit deployed and furling line rigged.

Rigging the Screacher:

1. Place the red and green sheet coils and the black furling line coil on the trampoline next to the screacher.
2. Find the head of the screacher (the skinny end without the black furling drum) and uncoil the sail by laying it out on the deck toward the stern along the starboard deck making sure there are no kinks.
3. Attach the screacher halyard to the head of the screacher. The halyard sheet clutch is on the starboard deck and is labeled. The halyard shackle should be in its normal stowed position attached to the bow sprit (see Photo 1).
4. Uncoil the red and green sheets and the black furling line. Note that the furling system is continuous line furling.
5. Attach the screacher tack to the bow sprit with the sprit still in its stowed position. See Photo 2 for location of the pad eye on the sprit. Note that the block at the end of the sprit is not used.
6. Begin hoisting the screacher halyard using the winch aft of the sheet clutch. Make sure to watch the sail while hoisting to ensure it doesn't catch on any rigging. Stop hoisting when $\frac{3}{4}$ of the way up.
7. Position the bow sprit. Untie the black line securing the sprit to the seagull striker. Lower the sprit to its rigged position – see Photo 2 (about 7-10 degrees above the horizontal). Tighten and cleat off the sprit down haul stay using the red speck control line and the cleat near the base of the sprit (see Photo 2). The apex of the triangular stay should be approximately 10-16" from the turning block where the red speck control line turns inside the sprit tube.



Screecher Rigging and Unrigging

August 2020

8. Now finish hoisting the halyard until the screecher is sufficiently tensioned. NOTE: Carefully watch the head as you hoist and stop hoisting if the head meets the mast turning block before the sail is fully hoisted. If it does then you will need to ease the halyard one foot or so and lower the sprit by pulling sufficient slack out of the sprit down haul control line and re-cleating. Then complete the hoist of the halyard, again making sure the head doesn't meet the mast turning block.
9. Rig the black furling line and blocks. See Photos 3 & 4. Note that the furling line should be routed in between the lower and middle lifelines on the port side of the forestay (Photo 3). Attach the first set of blocks to the base of the second stanchion from the bow. Attach the second set of blocks to the base of the forth stanchion from the bow (Photo 4). Cleat off the end loop of the furling line the small black cleat opposite and outboard of the sheet clutches.
10. And finally, rig the red and green screecher sheets through the stainless vertical roller type fairleads (Photo 5). Be sure to tie a figure 8 knot in the ends of the sheets. Note the black jam cleat at the far end of the track for cleating the sheets.



Unrigging the Screecher:

1. Ensure the screecher is tightly furled. The screecher halyard must be well tensioned in order to get a good tight furl.
2. Follow the screecher Rigging steps above in the opposite order.

CHART PLOTTER:

MokiMak is equipped with a Raymarine eSeries 125 Chartplotter



Highlights

- **MokiMak is equipped with a Raymarine eSeries 125 Chartplotter.** The electronics are powered by the Instruments breaker on the DC electrical panel.
- After power is applied, the system will boot up and show the date of the most recent chart uploads and will ask you to acknowledge disclosures.

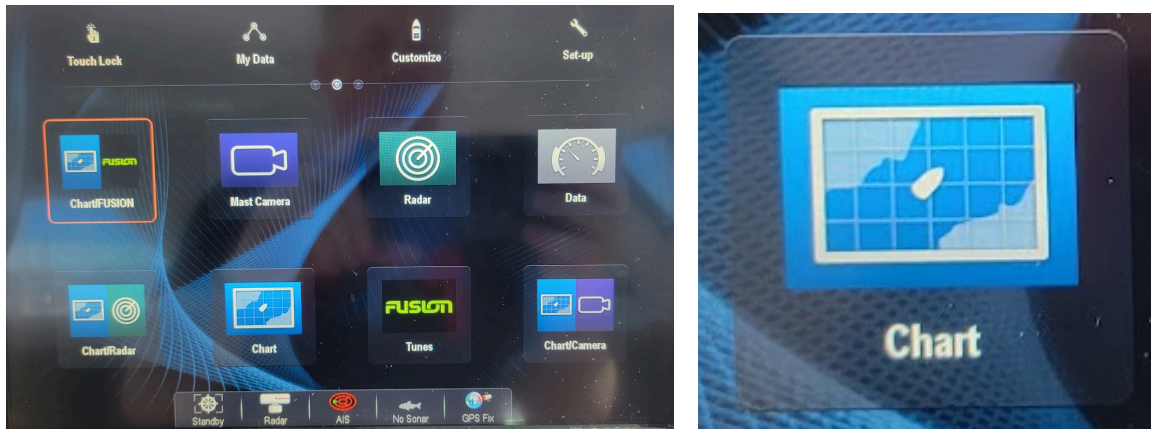
The most popular selections for screen formats are accessed by selecting Home, then choosing the layout you want. There are several “pages of possible layouts” and many include a split screen to show multiple functions at once.

- Please refrain from changing settings beyond the typical functions like chart orientation, radar overlay, AIS overlay and range.
- Commonly used chart plotter selections are detailed below. For a more complete orientation of how to operate and get the most value from a Raymarine chartplotter, we recommend downloading the user manual or reviewing the manual onboard. The

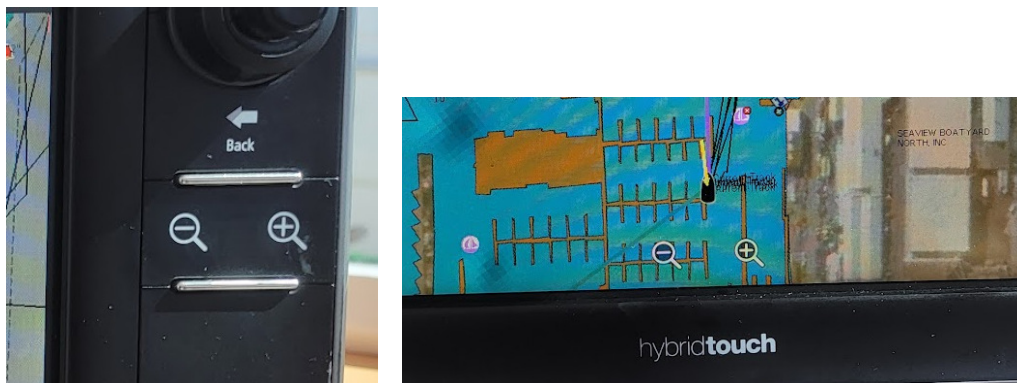
manual is also loaded into memory of the plotters if you wish to review something while onboard.

Commonly Used Chart Plotter Selections:

Finding the Navigational Chart: Click on the home button and choose Chart



Zooming in and out: Zooming can be done by using the zoom buttons while a chart is selected. The plotter will zoom in on the location of the current cursor. You can also use the zoom buttons on the touch screen at the bottom.



Returning the screen to the vessel's current location: To return the cursor and center the screen on the vessel, click on the boat icon in the upper left of the chart



Clearing Pre-existing Waypoints, Routes and Tracks: You can clear waypoints by going to the Menu>My Data>Waypoints>Select "All Waypoints"> Erase Wpts



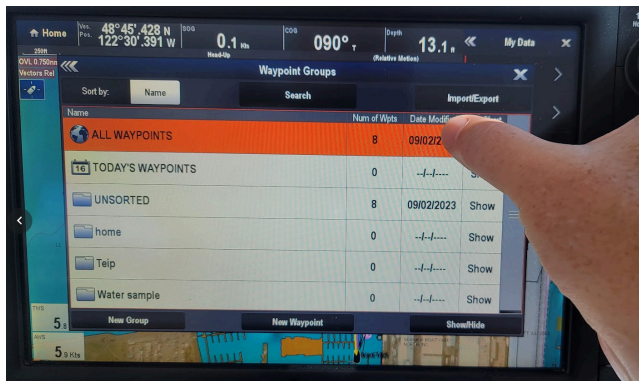
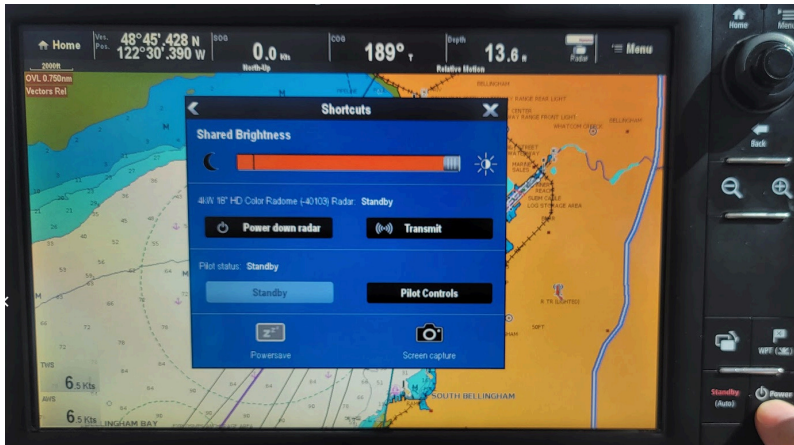


Chart Orientation: You can change the chart to orient North up, Course Up, or Heading Up in the presentation options: Menu>Presentation>View and Motion>Chart Orientation



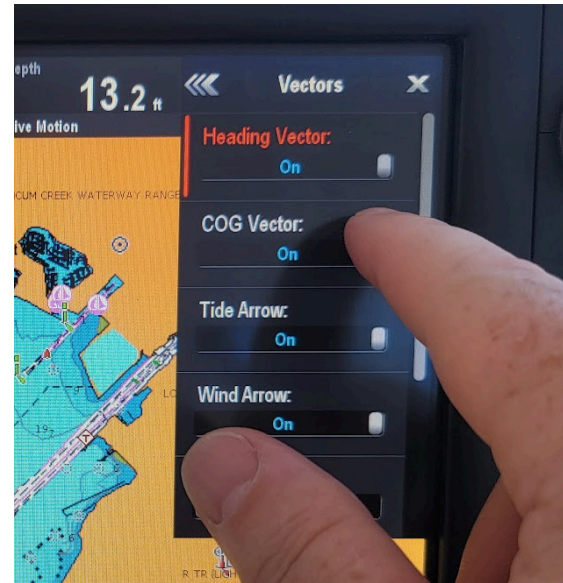
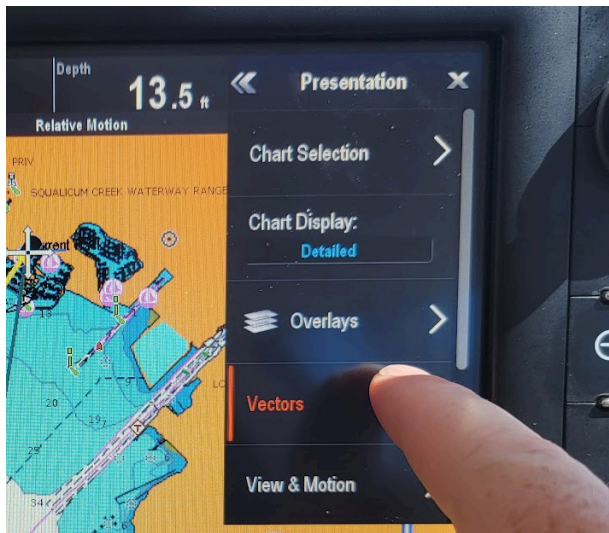


Display Brightness: To change the Chart Brightness, press power once and use the slider to adjust



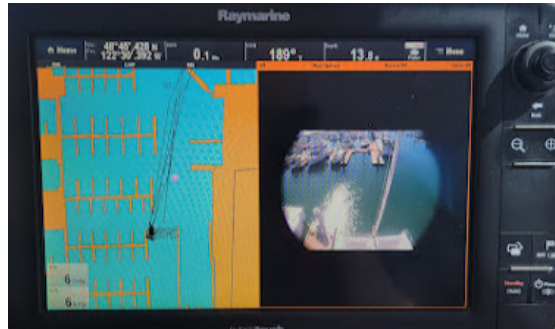
Course over Ground (COG) Vector/Line: COG should always be on. You can verify by going to Menu>Presentation>Vectors>COG Vector



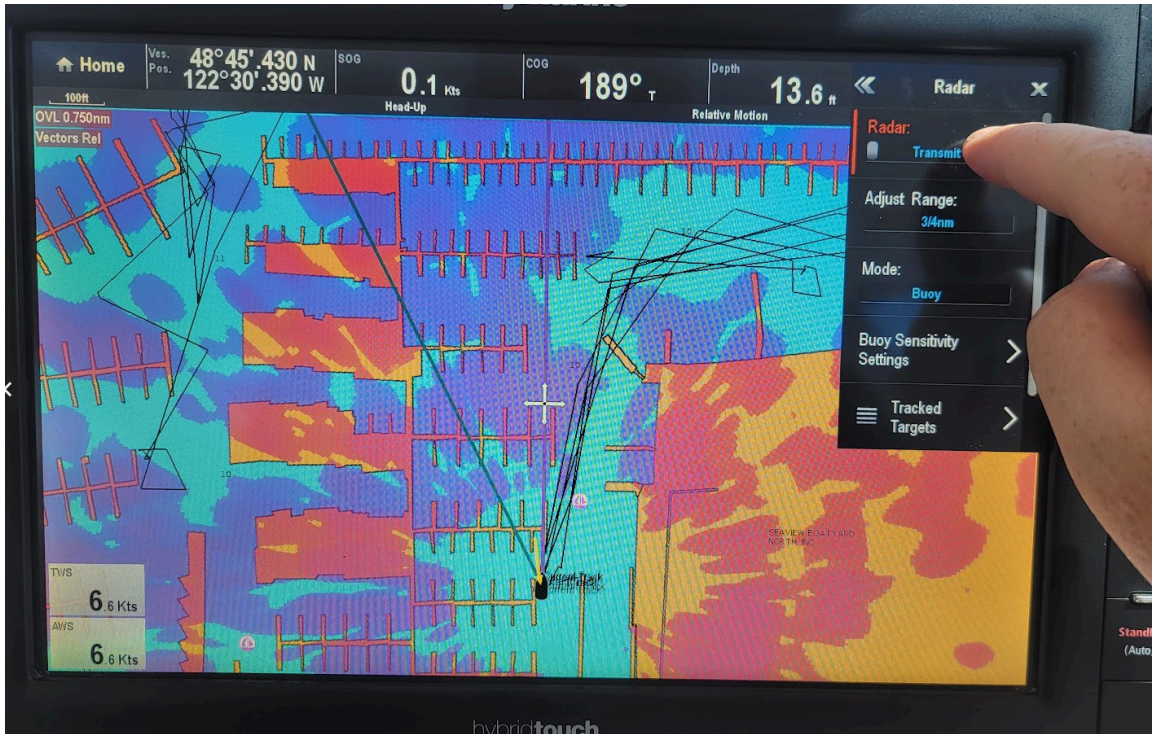
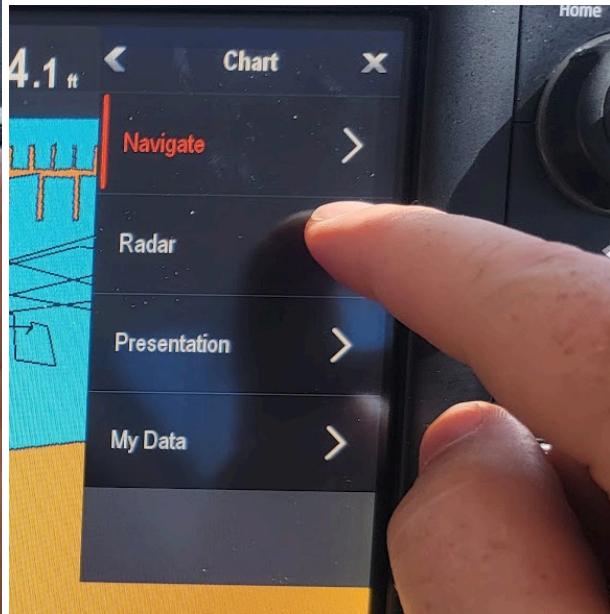
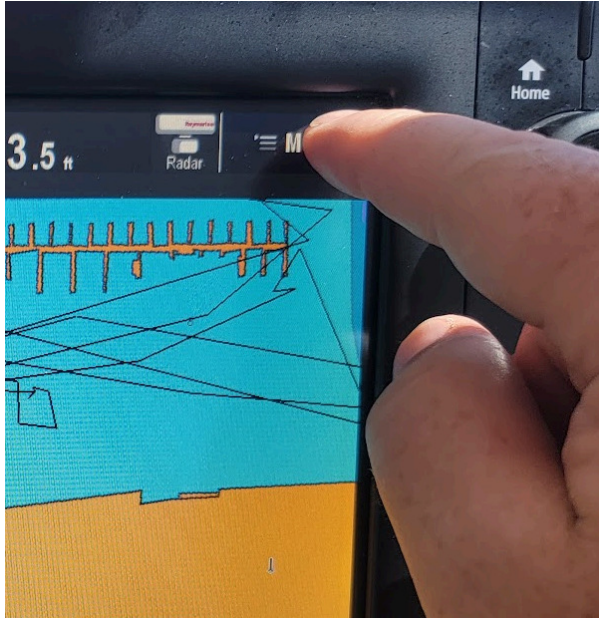


Displaying and using a Split Screen: As noted there are several split screen options (Stereo/Chart, Mast Camera/Chart, Chart/Radar, etc)

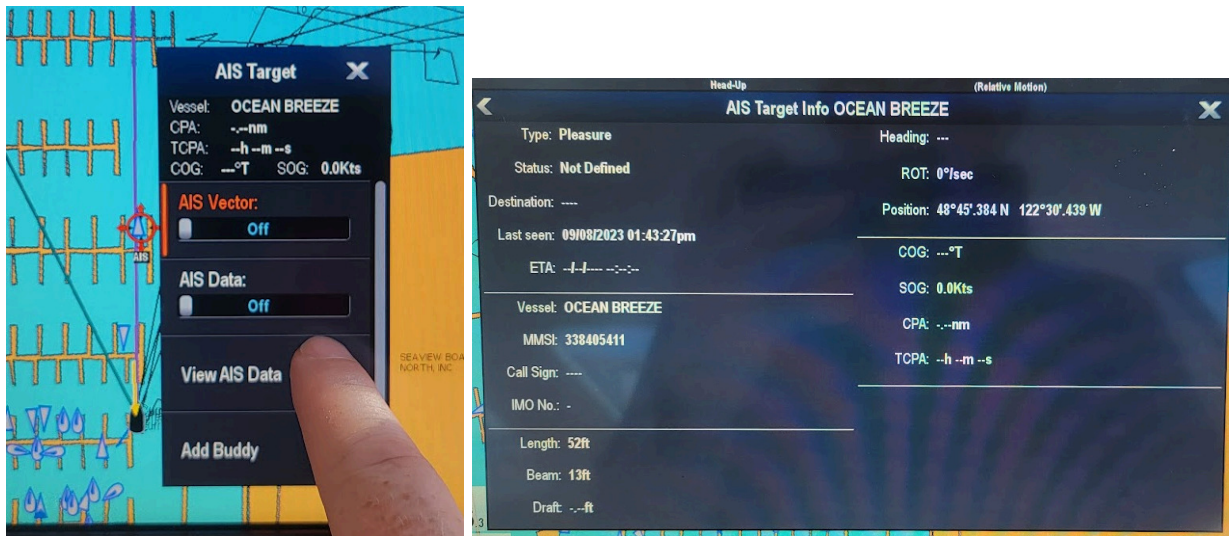
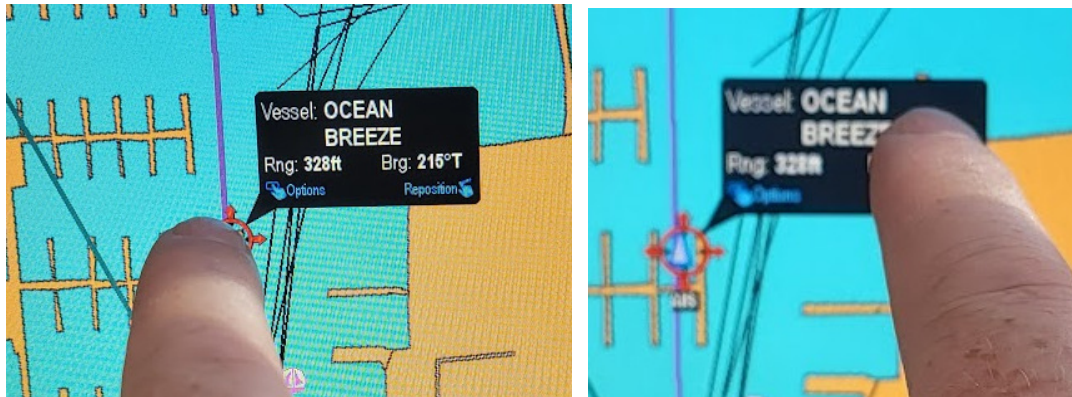
To navigate, click the home button in the upper left of the touch screen or the physical home button in the upper right. Select the option you want. The active screen will have an orange outline around it and all controls will only apply to this screen. To switch active screen, you can touch it or click on the screen rotate button:



Radar Overlay: Go to Menu>Radar>Transmit



AIS Overlay & Targets: To see other vessels AIS data (including speed and closest point of approach, Click on the vessel, then click on Options>View AIS Data



A.I.S. (Automatic Identification System):

Highlights

- MokiMak transmits her position and data via an AIS signal as well as receives AIS signals from other vessels equipped with AIS transmitters (Commercial vessels are required to have AIS, recreational vessels are optional). MokiMak is transmitting her position full time when the instruments are turned on.
- AIS information supplements marine radar, which continues to be the primary method of collision avoidance for water transport.
- AIS requires each vessel to have a 9 digit MMSI (Maritime Mobile Service Identity) number to transmit position and data. MokiMak's MMSI number is 367692810.

Details

AIS vessels appear on the chart plotter screen as triangles (must have AIS overlay turned ON – see above Quick Notes for how-to). The triangle points in the direction that the vessel is moving and if you touch the screen over the triangle the system will give you additional information (such as name, size, speed, bearing, etc.) about the vessel. The system also transmits this same type of information about *Vessel name* to other vessels with AIS.

The AIS is an added safety feature which allows large commercial vessels to easily see you and your direction/speed. They may try to contact you via VHF channel 16 to verify your course intent. In addition AIS allows San Juan Sailing/Yachting to provide faster assistance in case of unplanned maintenance issues as well as alert San Juan Sailing/Yachting of *MokiMak*'s return approach. Vessels with AIS can be viewed in real-time through mobile device apps and websites like www.marinetraffic.com that will reveal vessel name, course, speed, track, and other information.

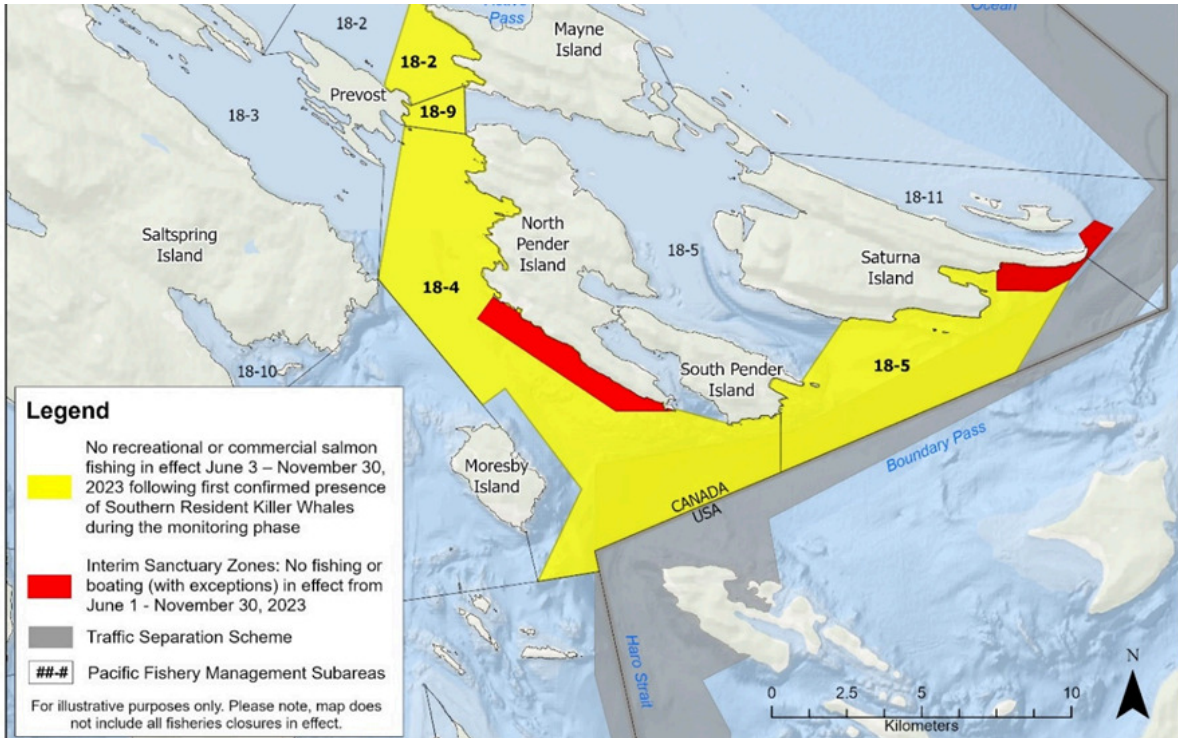
CANADIAN WHALE EXCLUSIONARY AREAS

There are several off limit areas in Canada to protect the local Orca population. You must avoid these areas. Charts should be updated with these areas. The onboard chartplotter will Label these as “VESSEL NO GO ZONE”

Being Whale Wise

Our local Killer Whales are a wonderful part of the local family. But they are having a difficult time surviving due to declining salmon runs. These whales use echo location to find and catch their food. Therefore, noise pollution from boats and ships make it harder for them to thrive. In an effort to decrease human impact both the Canadian and US governments have implemented rules. We provided you a summary of these rules in the packet you received when you arrived and there is more information in section 10 of the white reference book onboard MokiMak. In general, stay at least 400 yds. away from the whales. Sometimes they come to you, if this happens, shut down the engine and turn off the instruments (assuming this is safe to do). They can hear the pings of the depth sounder – this is why we have you turn off the instruments.

In Canada they have gone a step further by creating some zones where boats are not allowed. This further improves the environment for the whales. The red areas in the diagram below show these zones.



And here is an example of what they look like on MokMak’s chart plotter(s). The red lines have been added to help point out the dashed lines, which are what you will see on the plotter.



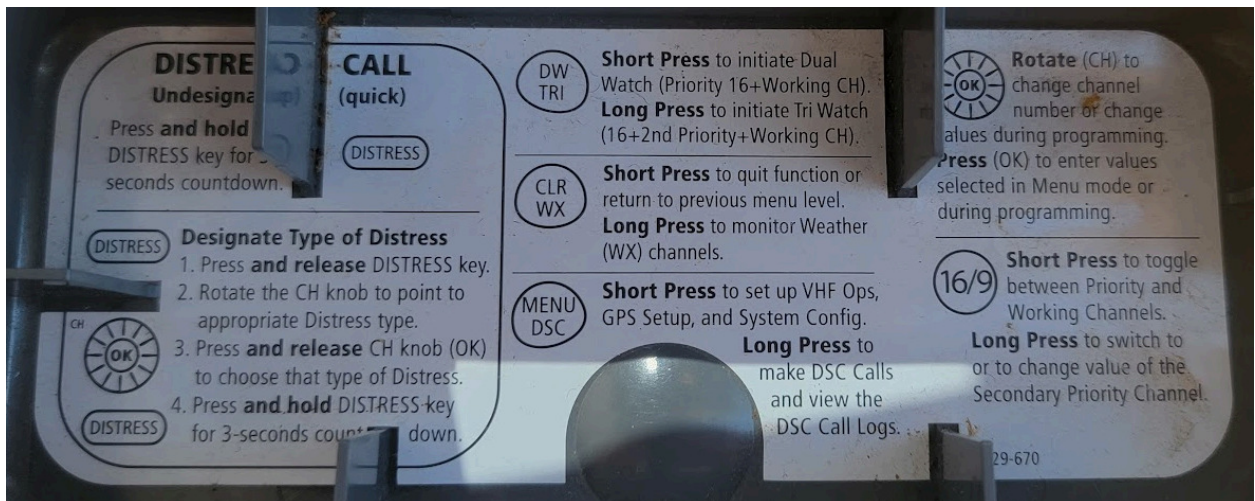
Note this is just to the west of Bedwell Harbour, so on your way in or out of there be sure to avoid this area.

VHF RADIOS:

MokiMak is equipped with a Raymarine VHF (a handheld VHF radio is also located above the Nav Stations:



Instructions are provided on the inside cover of the VHF Radio:



- **Turning On and Off the radio** – Turn the Volume knob to turn on the Radio
- **Silencing a DSC Alarm** – When another boat (or the Coast Guard) presses the DSC button on a radio it sounds an alarm on all boats in the area. To silence this alarm, press any key on the radio.

Cycling between low and high power can be done on the handset

- **To quickly get to channel 16** – tap the red 16/9 button
- **Accessing the weather channels (WX)** – Long press the CLR/WX button
- **Adjusting Volume and Squelch**
 - There are separate volume and squelch knobs on this radio, rotate as necessary
- **Changing between International & U.S. channel** – Press the MENU key, on the soft keys Select CHANNEL then FREQUENCY BAND, Use the Channel knob to select USA, INTERNATIONAL, or CANADA. The radios should be left in USA mode.