

Basics of sailing Micronesian way

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I. General rules - don't panic, there is no reason

The safety of you and your crew and passengers is most important.

Don't hurry - you can hardly be late with any action on this canoe.

In case you don't know what to do:

- Let the sail hang freely (the sheets are let go) and sit where you feel safe
- Observe and think
- Before further actions:
 - Guess what will be the result
 - Tell your crew about your goal and how it will be achieved

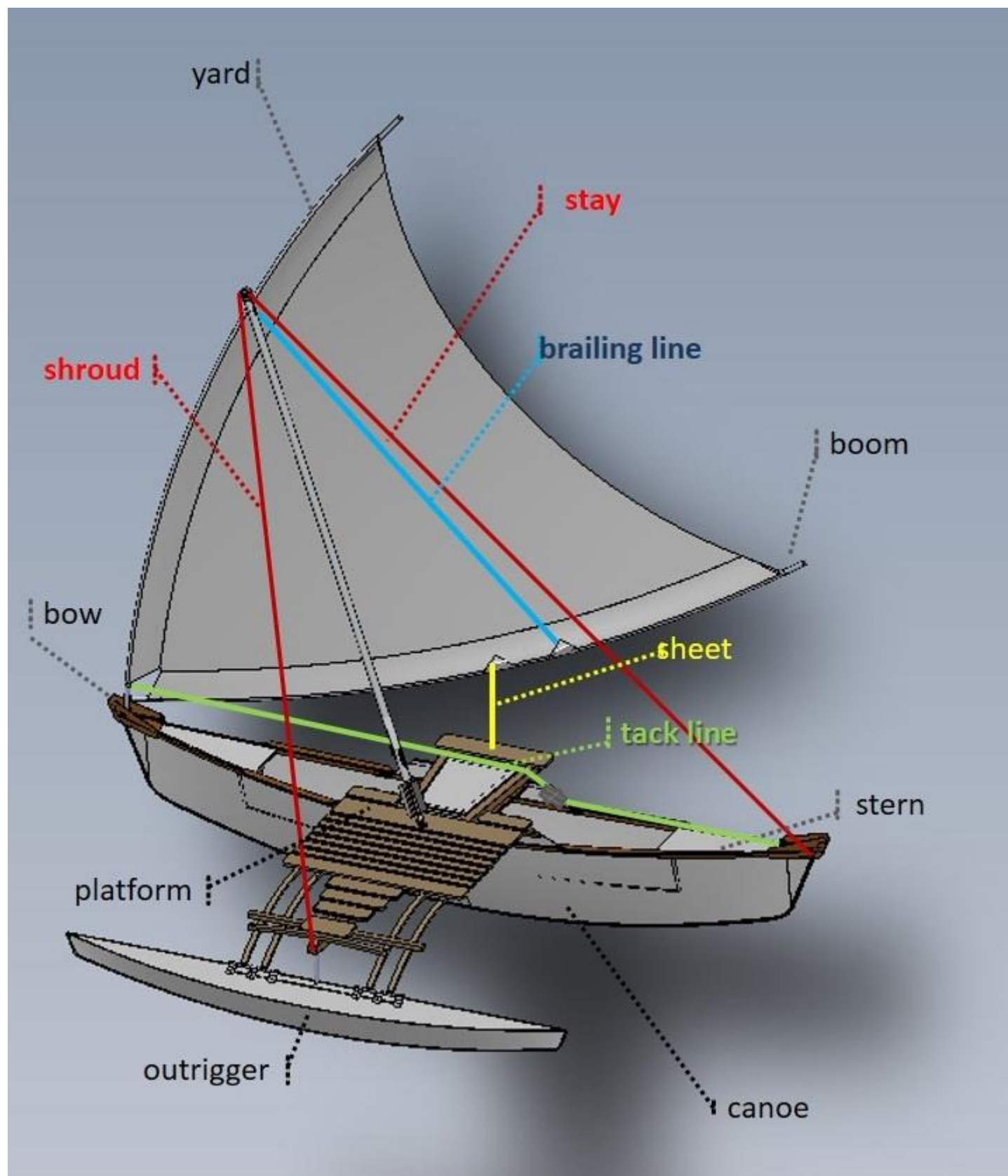
The canoe needs time to react and nothing happens immediately

The outrigger should be kept to windward, especially when sailing.



Always take a wool or fleece coat and rain jacket even in warm weather.

Use your brain 😊 because rules and advice further presented are simplified for clarity and are generally correct in pleasant conditions.



II. How to leave the beach

Be prepared:

Provide safety equipment for everyone on board + one spare.

- The sheet runs below tack line (both runs) and should be unobstructed



- Be sure that lines close to mast-top will not jam: halyard and brailing lines do not twist one around another, shroud or stays.

- The tack line is fixed in aft cockpit only and than noone left the tack line fixed in fore cocpit by mistake.



- Ensure that provided two paddles and two bailers, are placed one per cockpit so you always has one easy to reach, secured with lines attached to the canoe.

Standing safe on the strand – prepare easy start - hoist the sail up and de-power:

- Turn the canoe with the outrigger to windward
- Ensure there is empty space to the lee (side without platform) so that boom cannot hit anything when it swings to leeward
- Loose the tack line until it has a foot of slack otherwise hoisting sail can be hard.

- Hoist the sail up by pulling halyard until yard is in highest possible position. Any slack there will turn canoe to windward when sailing. >>



- Sail should fly freely to leeward, with no tension on the sheet, so sheet do not counteract when hoisting the boom



Tighten the yard at the bow, by pulling tack line, which then fixed in rear cockpit.

- Hoist the boom to the top by pulling both brailing lines together, and fix them on the mast >>



- Let tell-tales on the shroud or stays fly and ensure the position of canoe against the wind didn't change.

You are ready for sailing.

Push the canoe into shallow water up to your knees.

- The skipper and crew should climb on board one by one; if the canoe touches bottom, push it into deeper water.
- The last person in the water pushes the canoe out gently to gain little speed before climbing aboard
- Check to see if everyone is comfortable and positioned to not interfere in next manoeuvre



Sail away:

- Release the brailing lines from the cleats to carefully lower the boom; the sail will open.
- If the boom does not lower, pull it down slightly with the sheet

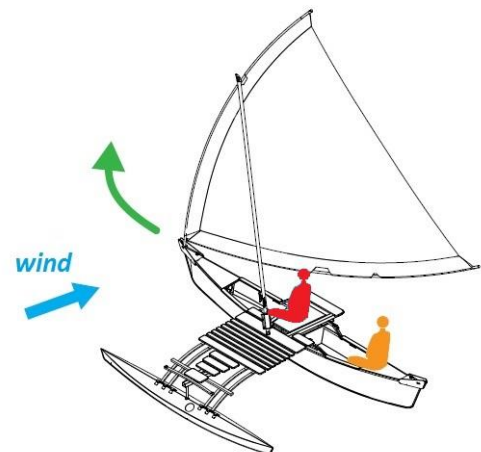
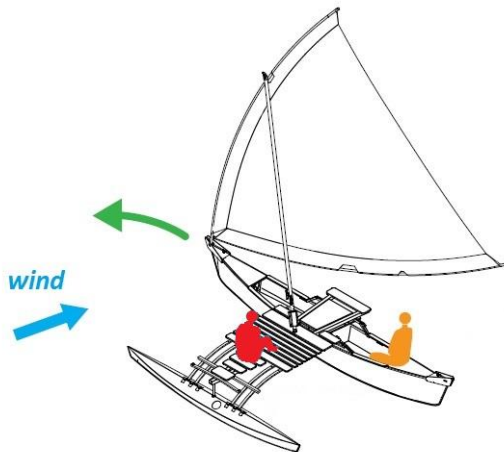


- Once the sail is open, you can adjust the sheet to create the proper curve (belly) in the sail.
- Set a straight course and adjust crew positions as required
- You normally shouldn't need to use the paddle, but keep it ready either to paddle out of a crowd before opening the sail, or rapidly change direction.

III. How to change and keep direction (please consciously apply the methods presented below)

The crew changes position across the platform to help steer the canoe:

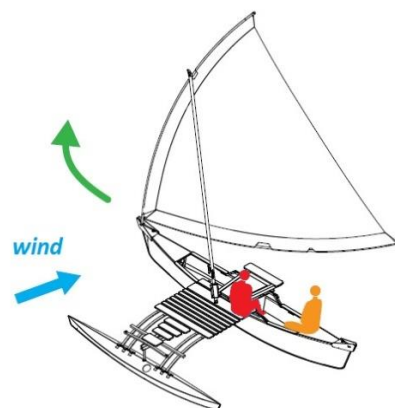
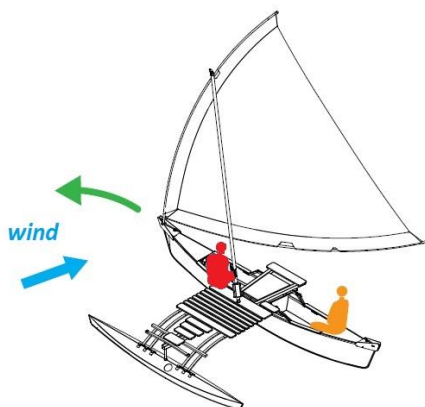
- If crew moves toward outrigger, the canoe turns to windward (toward outrigger side) because the ama sinks (creates drag) and rotates the canoe around



- If crew moves to the sail, then canoe turns to leeward (away from the outrigger) as the ama rises slightly and reduces rotational force

Crew moves along – forward and backward:

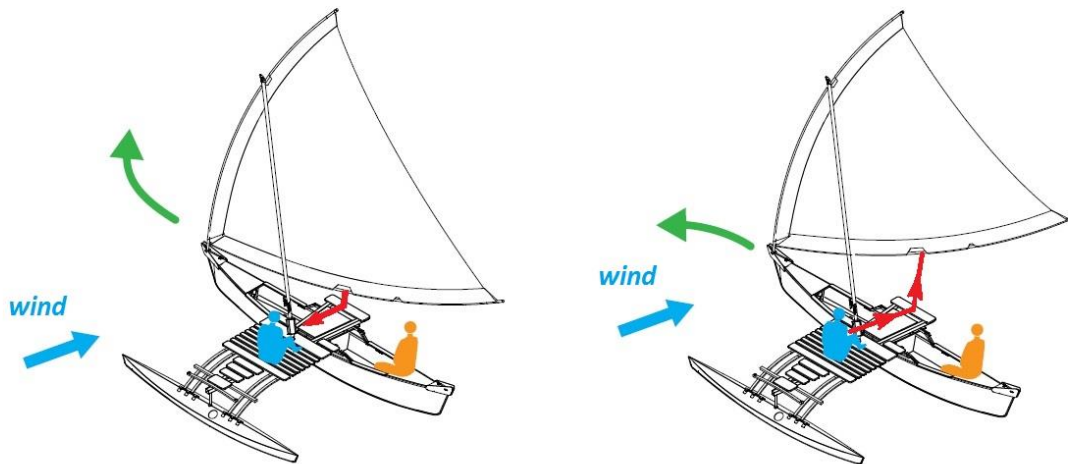
- If crew moves forward, then canoe turns toward direction of the wind as then pivoting point becomes in front of the force from sail and the canoe turns like a wind-vane.



- If crew moves backward, then canoe will attempt to turn downwind.

Pull the sail in or ease it out to adjust the course when sailing against the wind:

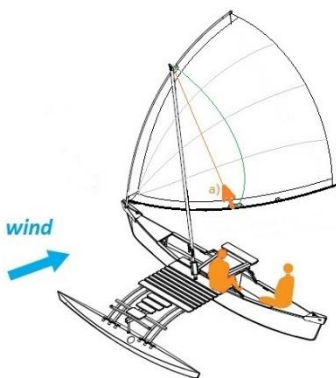
This method is effective only if the whole sail is equally filled with the wind.



- Pulling the sheet forces the bow to delicately turn off the wind as the sail's centre of effort moves forward
- Letting the sail out slightly (easing the sheet) forces the bow to move closer to windward as the sail's centre of effort moves outward (the boom is then like a lever that turns the canoe),

To control sailing with the wind aside: make a belly and "brake it" over the brailing line

When all everyone is moved back far but we need to bear off the wind more:



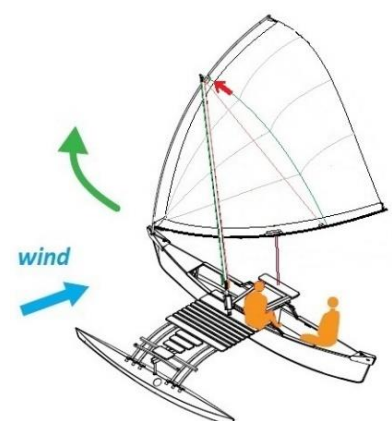
- a) Pull the boom up slightly with brailing line, so that the sail gets a lot of belly

Bring the boom closer by pulling the sheet, so that big belly is not distracted by the wind from other side.

These are preparations only, so don't expect course changing, yet.

- b) Pull this brailing line, which hides behind the sail, unless it deform the sailcloth and continue to make rear part of the sail, breaking over to lee.

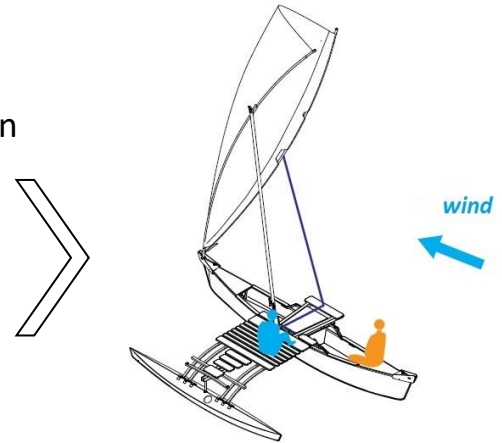
More you let the wind to spill over rear part of sail, more the bow shall turn off the wind.



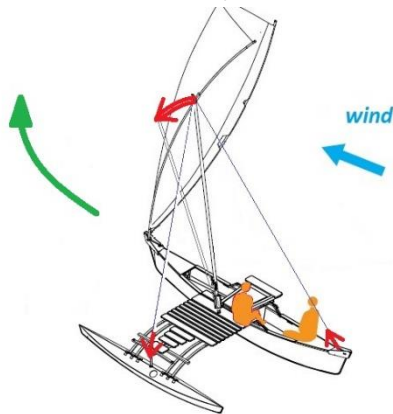
When sailing downwind

Make the sail into “carrot” shape, to move Centre of Effort forward:

- Let the boom move up by pulling the brailing line, on windward, which creates a deep belly in the sail
- Ease the sheet accordingly or the boom cannot move up.



And / or



Set the mast to more vertical position, by making the shroud shorter:

- release the back stay a little (c.a. a feet)
- Make shroud shorter by pulling a special line it is connected with, from the cockpit. Do it as strong as possible – this should make mast more vertical.

Do not forget: one need to let mast to heel to the lee side again, when you finish downwind course.

Use paddle for steering:

The paddle is always effective in steering, and it becomes more effective as canoe speed increases

- Place paddle blade into the water from this side of the canoe, which you want to push on
- The blade should be set parallel to the flow to minimize its drag.
- The shaft should touch the side of the canoe
- Use your upper hand on the grip to delicately set blade at small angle against the flow
- Forces can be significant so don't let the paddle to pull you out of the canoe.



IV. How to turn back

When we want to change direction completely

The Micronesian outrigger canoe can NOT be turned around like a car or ordinary sailing canoe; instead the bow and stern exchange their roles when we change the tack

- The Sail shall travel from one end, along the canoe to the other end, to the new bow as the mast acts like a crane to lift the rig from one end to the other:
 - Let the sail swing freely to leeward (away from the outrigger) by easing the sheet and bracing-line completely
 - Release the tack line from the cleat,
 - **!!! All sit roughly in the middle of canoe, at the mast-step !!!**
 - Force the yard along the canoe, by pulling the tack line,
 - Set the heel (bottom) of the yard into the nest at the “new” bow
 - Tie tack line with the cleat in (now) rear cockpit

The crew changes positions (mirror to previous ones) or just exchange roles



- Check if everyone is fine ☺
- Pull the sail in with the sheet to adjust it for the new course (as before, adjust the sheet until the sail has the proper “belly” as it engages the air)

Notes:

- a) Manoeuvre should be done slowly so you can observe (use your eyes ☺) how the boat is turning,
- b) Keep canoe evenly balanced with crew that neither end (bow or stern) dives, or boat can rotate too far. Some can sit on the platform at the mast.
- c) The sheet must be allowed to run freely; if it becomes a pile of spaghetti in the cockpit, it might stop the sail from moving.
- d) Sometimes the yard can hook around one of stays, e.g. lines connecting mast-top with bow/stern, although this is rare. Then stop shunting, unless one of crew will go to the bow and free the yard. In the same time the rest of the crew should counter ballast so the bow don't dive.

V. What can go wrong and how to react

If these methods are not enough

If the canoe consistently turns toward upwind (weatherhelm),

- Usually this happens when there is too much distance between the yard and mast-top because the sail is not hauled up completely; tighten the halyard.
- Mast heels too much to leeward (away from the outrigger); you need to “straighten it up” by shortening the shroud (the line connecting mast-top with outrigger)

Canoe cannot be made to sail downwind,

- Shape the sail like a carrot by pulling boom close to the mast-top with brailing lines
- All crew goes as back as possible to push stern deeper into the water (this will let the canoe “weathervane” downwind)
- Steer with a paddle

Sail receives the wind from the opposite side then normally (“backwinding”):

- Avoid backwinding at all cost because the sail and mast may fall back onto the platform and outrigger,
 - Turn the canoe back to position with the wind clearly from outrigger side, by any means, unless no reaction observed, then
 - Use the paddle with a lot of energy
- If above didn't fix the problem, do not release the tack line from clam, but
 - Pull boom down and out with your weight, or
 - Alternatively: quickly pull the sail up completely with brailing lines, which you tie with cleat and then stretch the sheet. The sheet plays the role of (now) windward shroud.
 - The crew change positions so that neither mast nor boom or yard could fall on anyone
 - Paddle strongly to turn boat around
 - Observe the canoe turning to the right position with outrigger to windward

A storm is coming, conditions get worse,

- Run away to closes shelter, even it is only coastal scrub

A storm has caught us or we cannot handle the wind,

- Drop the sail down and lash it to the canoe to prevent the sail from flying around
- You can easily lay the mast down and fix it to the platform.
- Crew hides from elements in the cockpits to get out of the wind and reduce the chance hypothermia, which can happen quickly and is dangerous (safety equipment should include a wool or fleece coat and rain jacket even in warm weather)
- We steer with paddle or paddle towards closes shelter available
- Call for help