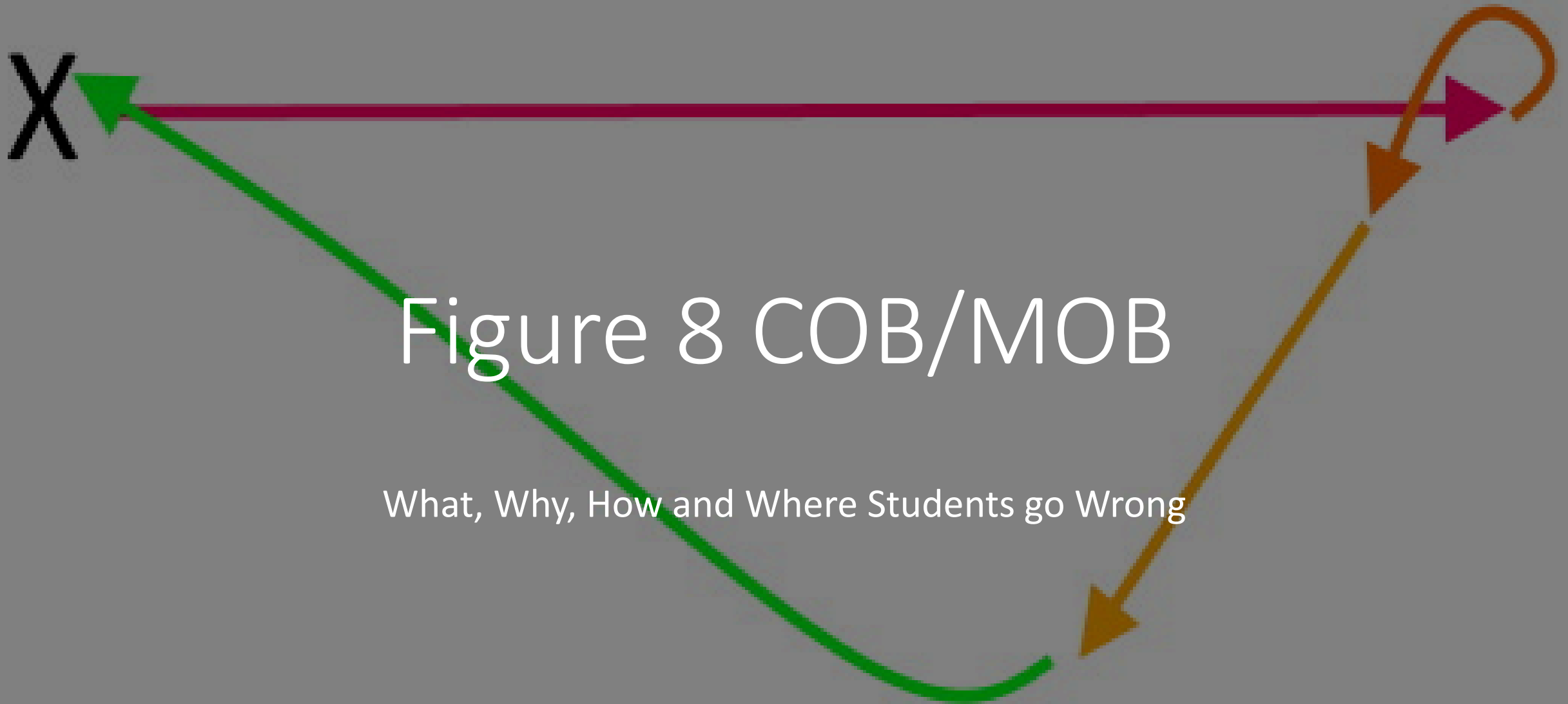


X

Figure 8 COB/MOB

What, Why, How and Where Students go Wrong

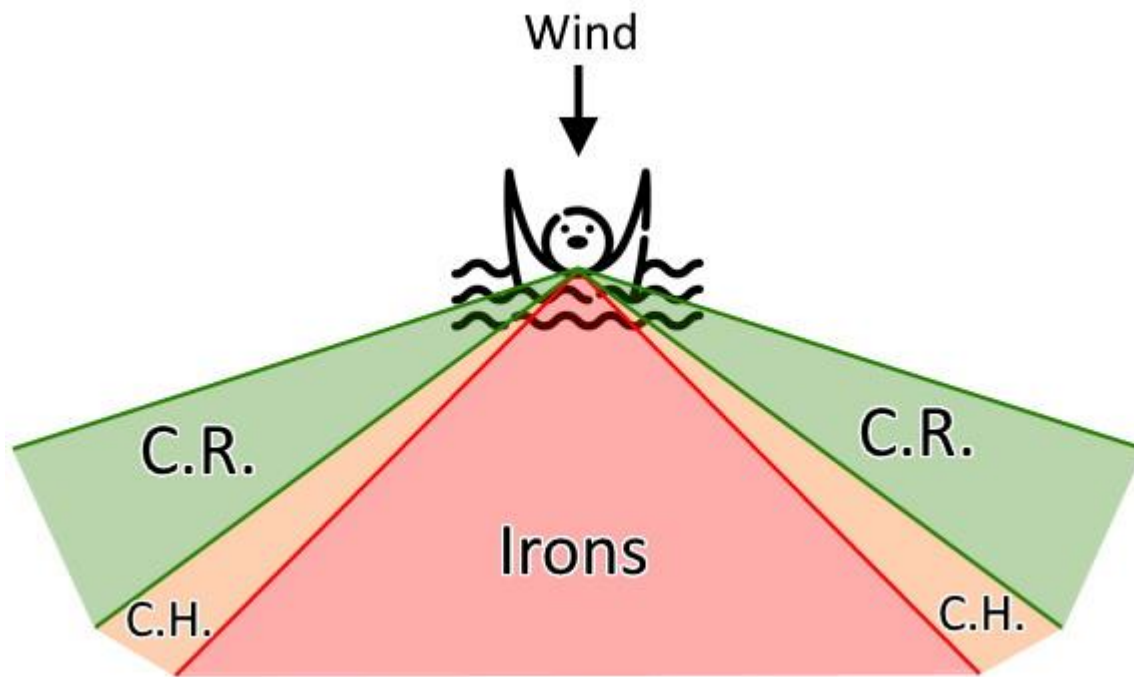


Why does ASA teach the Figure 8 MOB



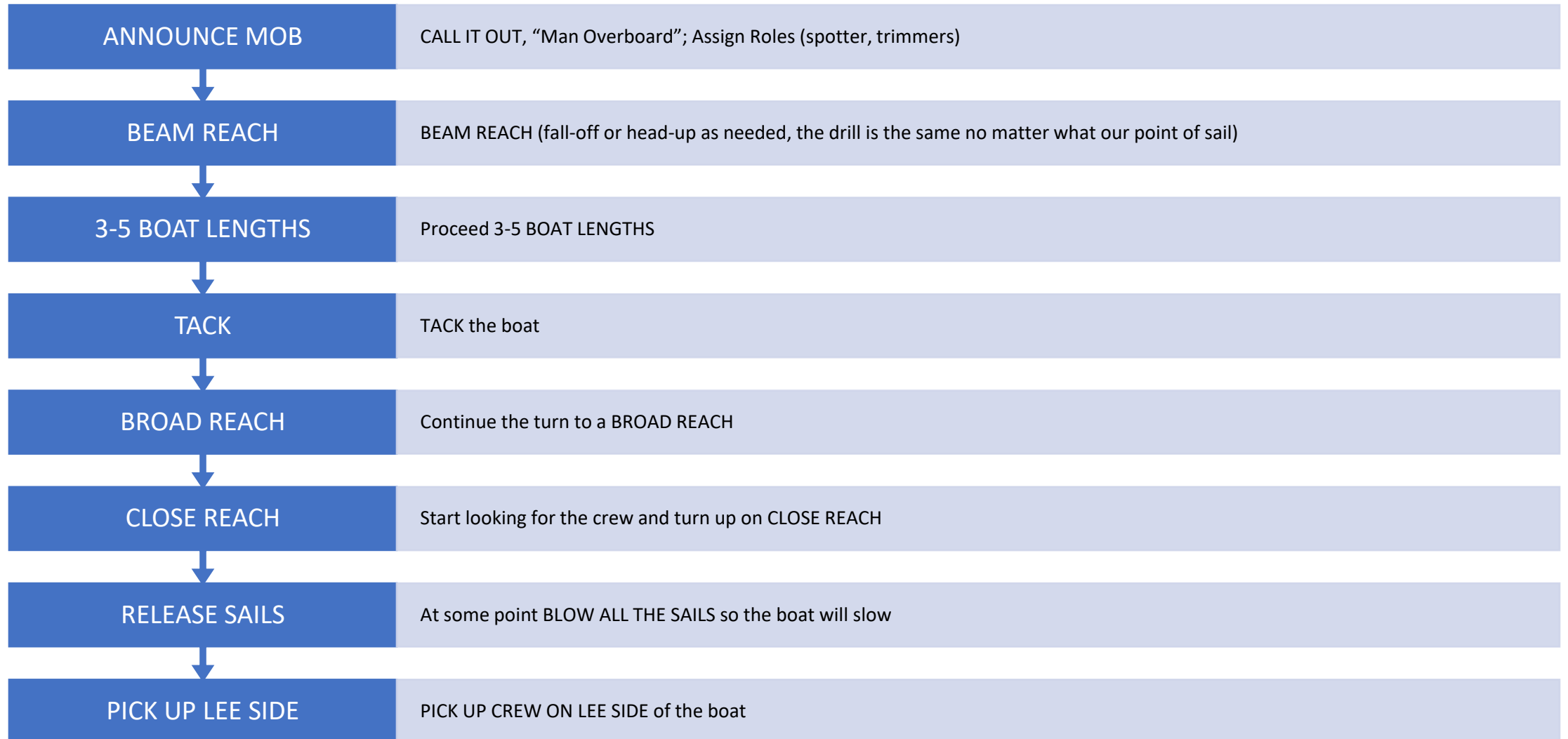
- A basic maneuver to get back to a crew member that will work in almost any sea state and on any boat
- As a demonstration of sailing skill to follow a specific set of instructions in a condensed time period.

What is the objective of the Figure 8

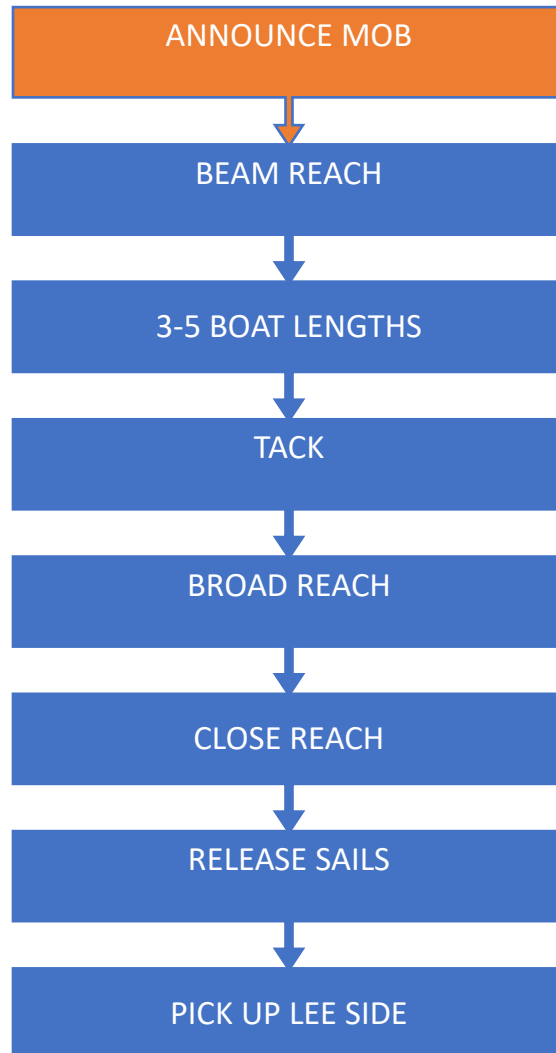


- To get the boat on a CLOSE REACH, the best point of sail for picking up a COB
 - Heading into the wind helps slow the boat (Beam, Broad or Run will not allow for stopping the boat)
 - Gives wiggle room for leeway from waves unlike Close Haul
 - Gives wiggle room for the man drifting further downwind (more likely in flat water)
 - Regardless of recovery method (quickstop, motoring), CR is ideal approach. This drill helps reinforce fundamentals

The Basics

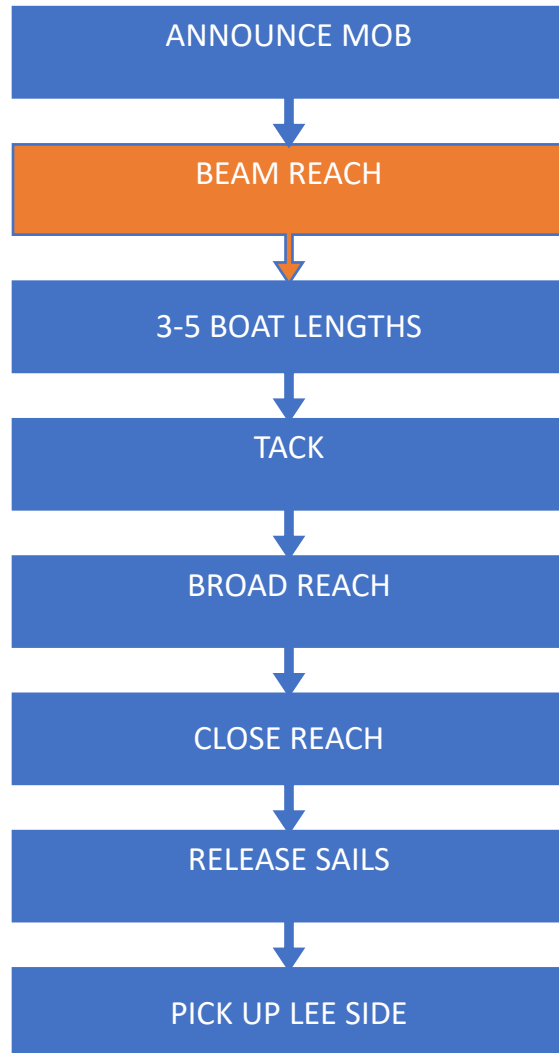


The Extras – Announcing MOB



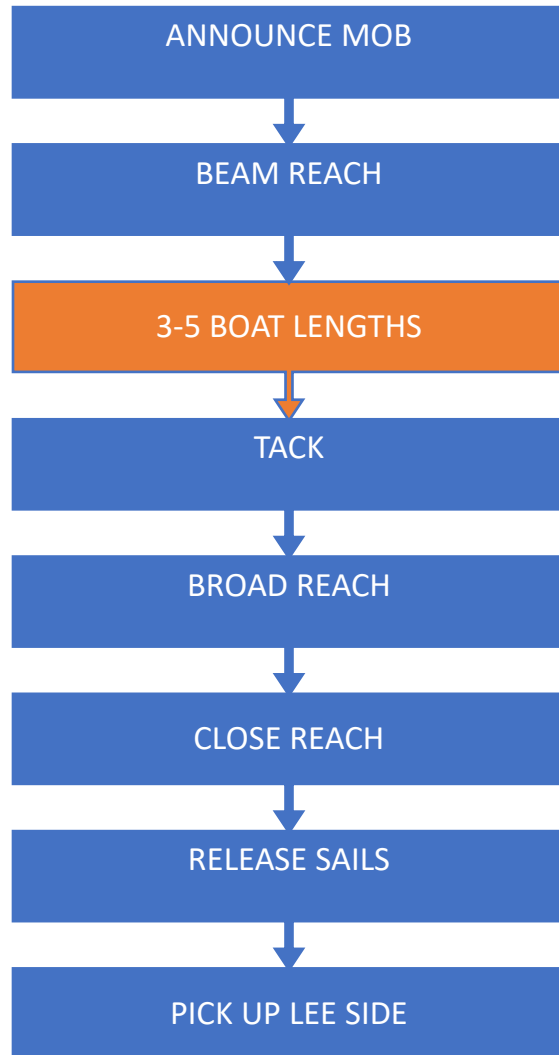
1. MOB on GPS (practice using this, like IFR in a plane).
2. Throwables create a bread crumb trail and creates a larger target which can help navigate back to a drifting COB in bad visibility
3. Wake sleeping crew.
4. Radio mayday.
5. Getting pickup device ready: dock line, life sling, dinghy, etc.

The Extras – Beam Reach



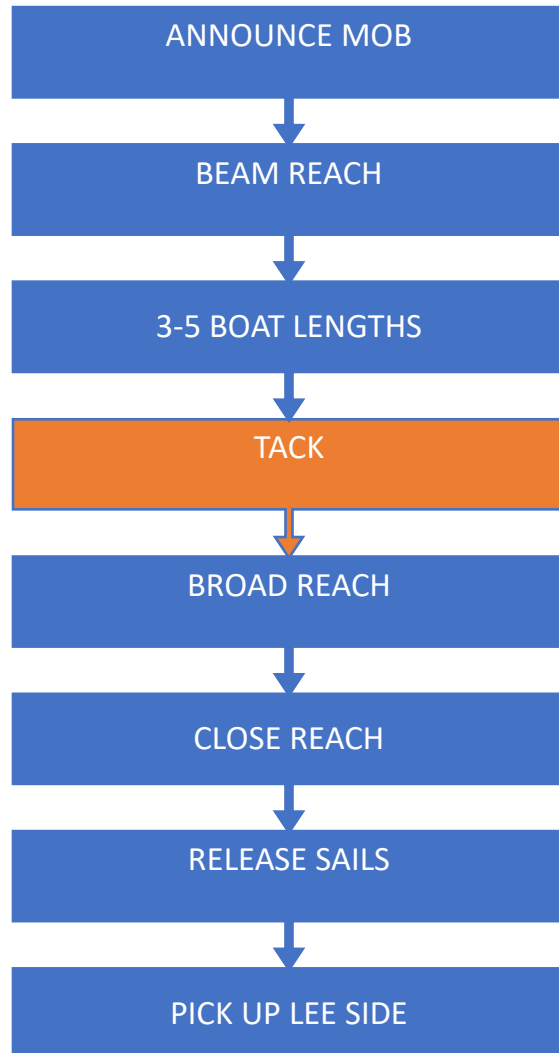
1. Err towards a more downwind point of sail. Advanced levels teach to go to broad reach now.
2. Do not wait! If possible combine with the Announcement. If you are heading upwind, then you are moving further from the close reach cone we are trying to get back to.
3. Helms persons head on a swivel, looking back to man only occasionally for distance travelled, wind vane for correct point of sail and the direction of travel for traffic.

The Extras – Distance from the COB



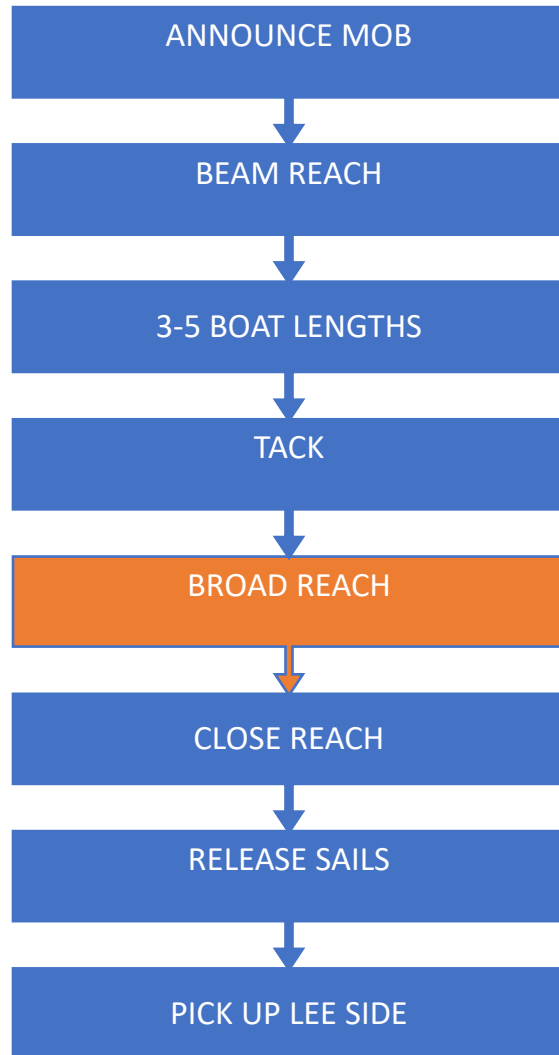
1. The further we extend the drill, the more time we give ourselves. This is not a bad thing, 5-8 boat lengths may be acceptable in some circumstances.
 1. Students learning need more time
 2. Big boats that need time to prep
 3. Strong winds making the boat go faster
 4. Small boats that don't create enough space
2. Plant the seed that as students practice, make the drill as short as possible.

The Extras – The Tack



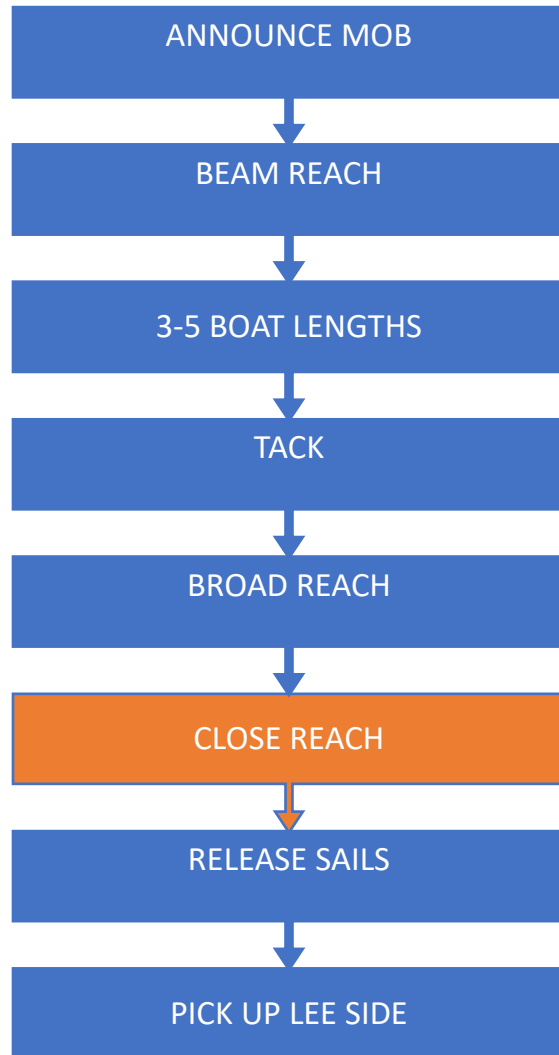
1. Keep the turn going, students often slow the turn down as they get used to tacking close haul to close haul
2. After getting to beam reach, start to slow the turn down to avoid a jibe. Easing sails at the same time will ensure the boat doesn't get overpowered. Teach students to feel the apparent wind decrease as they get on broad reach.
3. We tack because it is safer than jibing when potentially short handed. If you've ever chicken jibed you know that you don't even need to touch the main sheet.

The Extras – Broad Reach



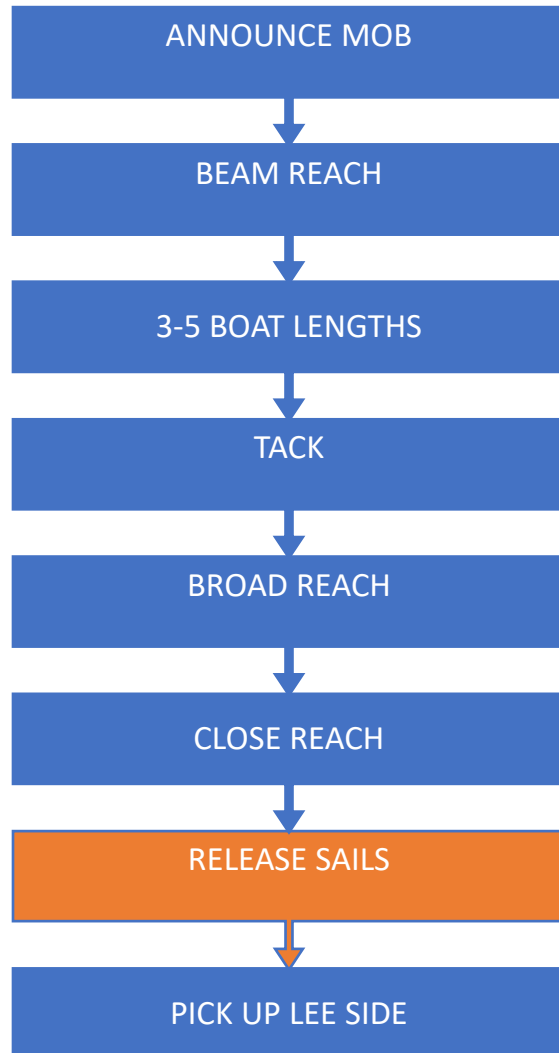
1. Students need to understand that different conditions will allow them to sail deeper downwind such as more wind or flatter water. Waves or lighter wind can easily trigger an accidental jibe.
2. If done correctly you are on broad reach 3-5 seconds, certainly no more than 10 seconds. Boats with swept back spreaders may need to come up steeper therefore extending this time.
3. At advanced levels students can use the windvane on true wind mode to visualize the angle between the main and the wind, 25-40 degrees is about right.

The Extras – Close Reach



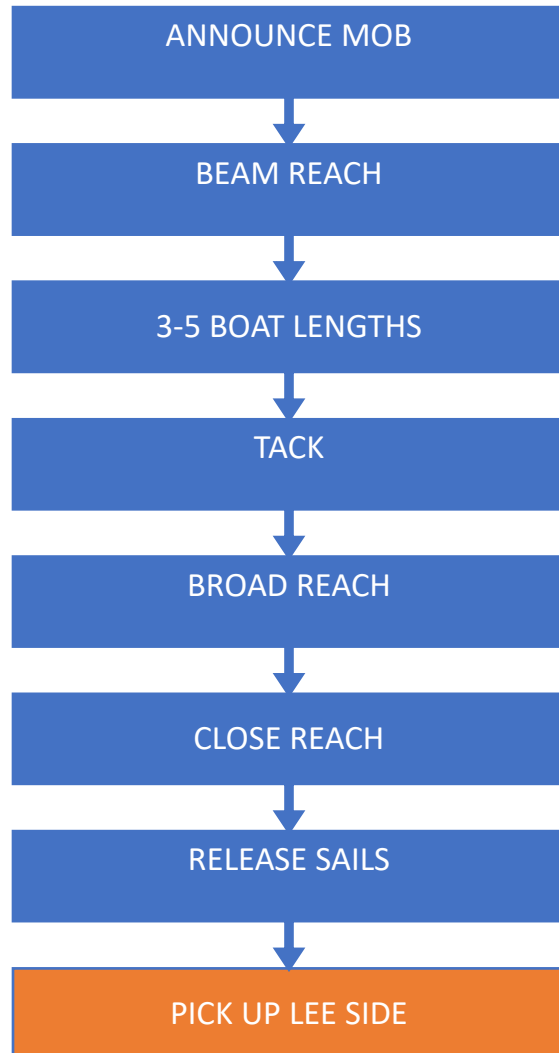
1. Spotter, if not single handing the drill, should start communicating information. All previous maneuvers happen without much care for location of the COB.
2. Good communication can be the difference between the helmsman looking like a rock star or a dud. Avoid non-specific information: “You’re close”, “Almost there”, “Turn a bit”. Instead use: “Good heading”, “20’ off our bow”, “Turn 5 degree right/starboard”.
3. Close reach allows wiggle room to weather or to lee. Very hard to maintain close haul lines in bigger waves.

The Extras – Release the Sails



1. If sails were correctly trimmed on broad reach then nothing needs doing here. They will already be eased as we turn to close reach.
2. Consider furling the jib rather than just easing.
3. Can keep a bit of main on longer if accessible to the helmsman.
4. Can simply pull on the falls (lines between the blocks of the main) on smaller boats to add some gas.
5. If you come in too slowly, leeway will quickly increase.
6. Know your boat: efficient, bottom clean, lightly loaded. This is why we practice on all boats!

The Extras – Pick Up on Lee Side

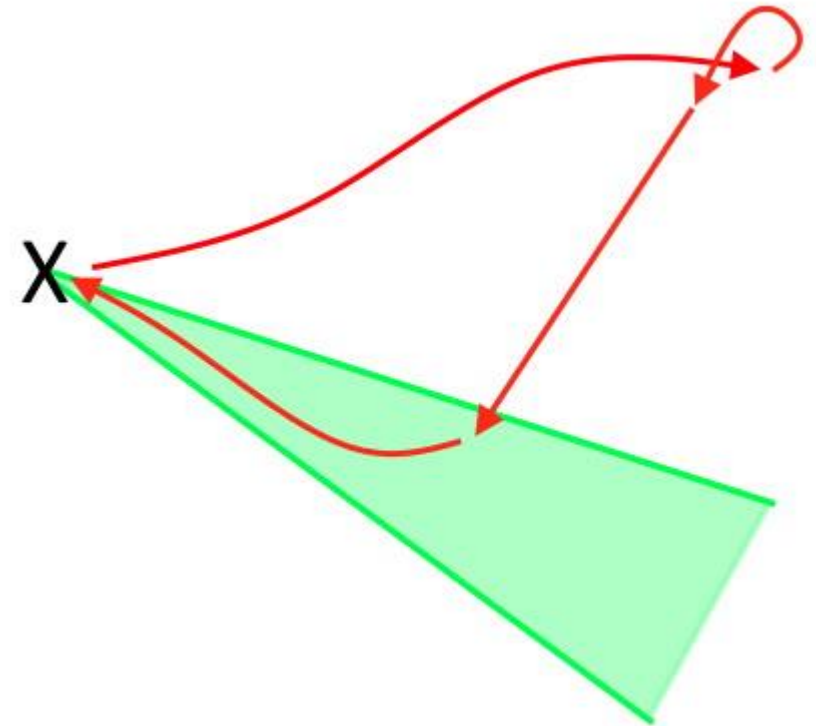


1. The drill is to pick up on the lee side. Are there reasons to pick up to windward? Yes, but they can be practiced by the student on their own time.
2. The drill prepares students for foul weather on any boat, we must keep that in mind as we practice in sunny SoCal!
 1. Gale winds will quickly blow the boat downwind of the COB.
 2. Heavy seas will smash our COB into the side of our boat
 3. Lee side pickups protect from both these things.

Common Mistakes

Not getting to Beam Reach Quickly

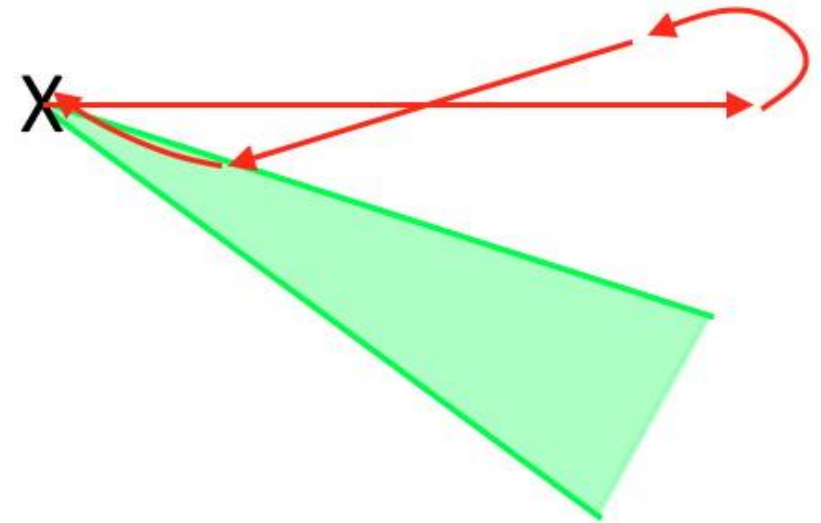
- Students often get fouled up by worrying more about announcing and then figuring out where the wind is, often getting to beam reach after 4 boat lengths
 - Can practice with reefed main, or no jib to slow the boat down for students giving them more time
 - Can also start them on beam reach to make it easier for them
- Makes our broad reach very long, and potentially a very short runway to turn up to the COB and not enough time to slow the boat.
- COB may be drifting downwind quickly so it can really increase our time spent getting back to them.



Common Mistakes

Not continuing the turn during the tack

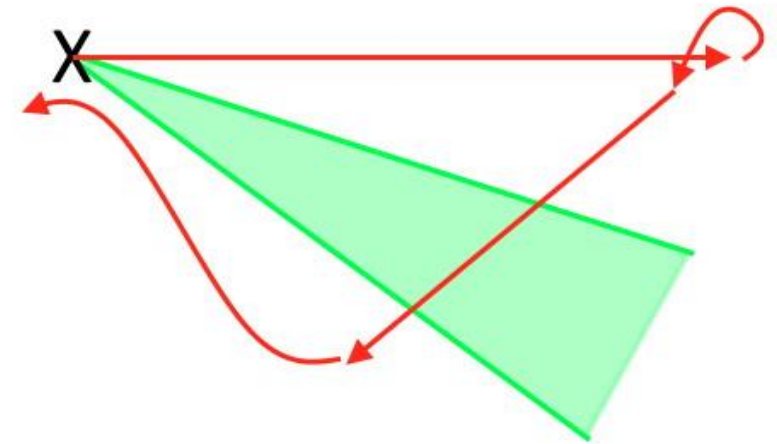
- The biggest mistake I see is that students do not keep the turn going after the tack occurs. This prevents them from quickly getting to a broad reach.
- My theory is students train tacking close haul to close haul all the time that it becomes muscle memory
 - Could get students to practice chicken gibes in advance to get used to big wide turns.
- The end result is not getting to a close reach instead coming in too fast on a beam reach.



Common Mistakes

Not turning up early enough to a close reach

- The second biggest mistake I see is turning up too late to close reach. This results in close haul or irons. If there is not enough boat speed the boat will stall out and gain leeway
 - Teaching moment! In real life we won't start over, fall off, get some speed do one more tack and pick them up on the other tack.
- The broad reach point of sail is very short. I will get students to count to 5 out loud if they are continually turning up late.



Common Mistakes

Other mistakes

- Poor communication from spotters!
 - A good spotter can be the difference of whether the helmsman looks like a rock star or not
 - Silence can be confusing to helmsman, keep talking, let them know if things are GOOD or bad.
 - Be specific about directions
 - Communication really should only start at broad reach, communicating when COB is abeam of the boat. If spotter cannot do that then only on final approach on Close Reach
 - On a small boat this drill is easy to single hand. Get spotters to think about communication on bigger boats, with lots of wind and NO visibility by the helmsperson of the COB
- Helms person fixating too much on man early on, not looking at point of sail or oncoming traffic

Advanced Refinements



Other options for slowing the boat while approaching the man: *S-turns, sculling, turning sharper onto close reach, backwinding sails, motor....? Tools in the tool belt!*



Adding speed with the main as needed. The falls or main sheet can be used by helmsman on small boats



Swept back spreaders or tripod rigs may require a pickup that is closer to close haul to depower the main effectively



The man will drift more in flat water & high wind resulting in modifying final heading that could be closer to beam reach, watch out! This can be mitigated by a steeper approach allowing more room to fall off. You may need to aim below the man.

- Can increase MOB drift by using a Type II square vest.

Teaching Notes



Get students to think about foul weather and different boat configurations:
Nighttime or bad visibility

- * Gale winds with more leeway and a harder time communicating

- * Big seas that may allow a spotter to only see them every 10 seconds. Hold a hand outstretched so when your eyes lose them you have a reference of where they were.



Keep it simple when students are learning. Don't overburden with advanced details.



There's no starting over when it really happens. If the students misses the man keep the drill going. Do you start over or make the most of a bad situation



A picture is worth a thousand, a video might be a million. Find a youtube video online that you think does justice to it. A good drone shot really shows the drill nicely

Final Thoughts – The Pickup

- Drill isn't over when back at the man. Pickups could be a topic in themselves. Must think about adverse conditions, what could work on a fair day may be impossible in foul weather, or with a heavy or disabled crew member.
- Practice with a safety boat and try different things.
 - Getting in the dinghy
 - Lifesling winch X:1 pulley system
 - Dock line elevator
 - Transom or swim ladder
 - 1 handed bowline for COB, or having crew ready to tie a big sling

Reference material

- <https://www.youtube.com/watch?v=KE4aWTtL8K4&feature=youtu.be>
 - Uses the jib sheet 'winking' to tell when close to a gibe and backs off turn (flat water only!)
 - Good to see experienced sailor looking up at wind vane to see wind direction, students often think it's bad to have to look
 - Good drone shot showing boat wake which is helpful
- <https://www.youtube.com/watch?v=-sNx4CcuC3U>