



Sailing

Ship 1610 School of the Boat



First Steps

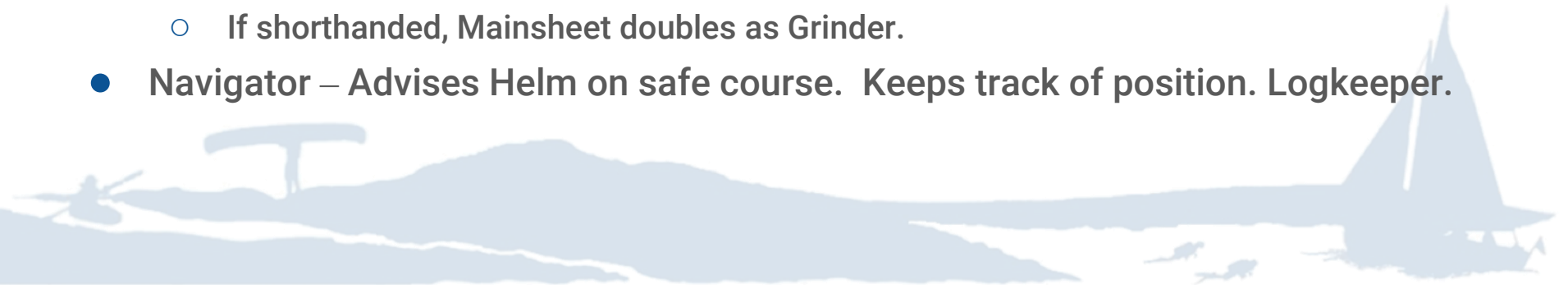
Introduction to Sailing





Basic Watchstations

- Helm – Steer the vessel. Commands the crew. Navigates if there is no navigator.
- Foredeck – Bow lookout. Handles halyards. Sail handling during tacks & gybes.
- Mainsheet – Aft lookout. Trims the mainsail. Assist Foredeck when raising & lowering sails. Logkeeper if there is no navigator.
- Jibsheets
 - Working Jibsheet – Trims the jibsheet that's under tension.
 - Lazy Jibsheet – Grinds the working winch.
 - Roles reverse after a tack or gybe.
 - If shorthanded, Mainsheet doubles as Grinder.
- Navigator – Advises Helm on safe course. Keeps track of position. Logkeeper.





Talk Like a Sailor

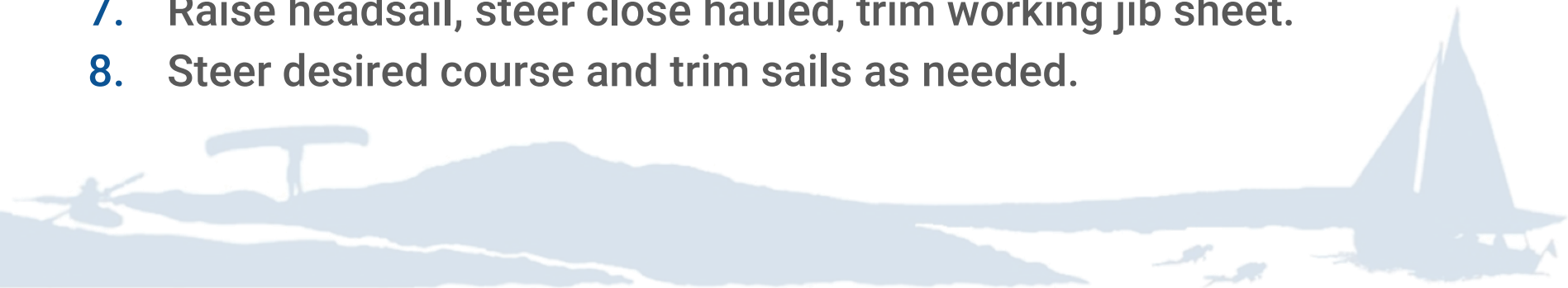
- Windward – Toward the wind.
- Leeward – Away from the wind.
- Tack – Turn the bow through the wind so that the direction from which the wind blows changes from one side to the other.
- Gybe – Turn the stern through the wind so that the direction from which the wind blows changes from one side to the other.
- Head Up – Steer closer to the wind.
- Fall Off – Steer further from the wind.
- To Weather – Steering the boat to windward, a.k.a. beating.
- Lift – A wind shift in your favor when beating; allows pointing closer to destination.
- Header – A wind shift not in your favor; requires falling off.
- Puff – A brief gust of wind.
- Lull – A brief lack of wind.
- Trim – Tighten a sheet.
- Ease – Loosen a sheet.





Basic Steps – Raising the Sails

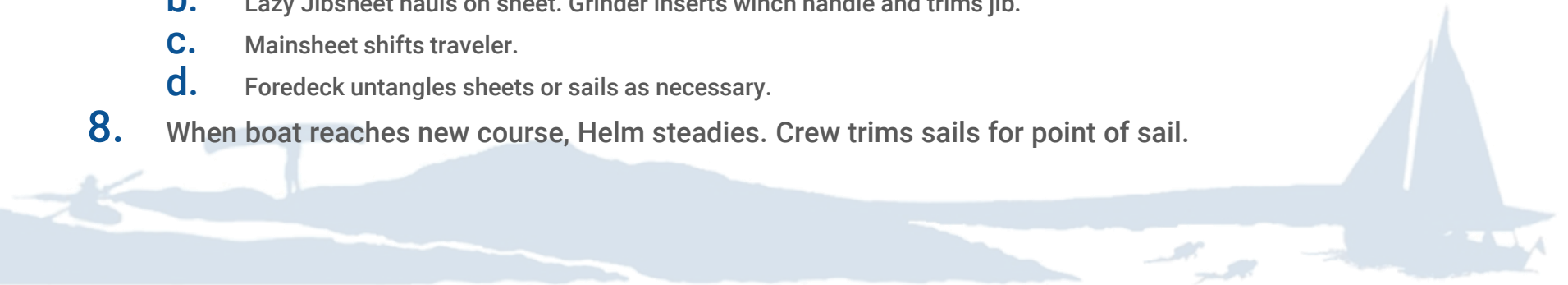
1. Steer bow to wind, low speed.
2. Loosen boom vang and main sheet.
3. Remove sail ties.
4. TIP: keep tension on main halyard to prevent wrapping around mast.
5. Raise mainsail.
6. Trim (tighten) main sheet.
7. Raise headsail, steer close hauled, trim working jib sheet.
8. Steer desired course and trim sails as needed.





Basic Steps – Tacking

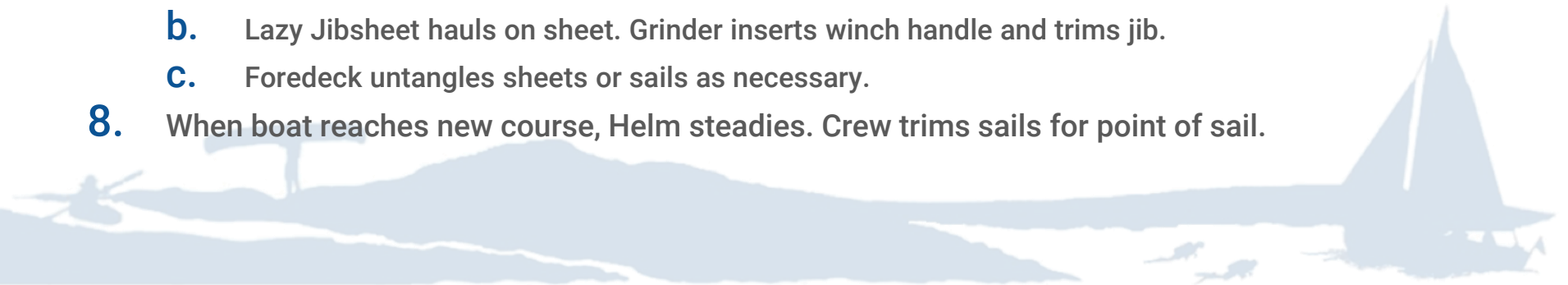
1. Helm identifies a new aiming point for steering.
2. Helm announces, “Prepare to Tack”.
3. Mainsheet prepares traveler for shifting. Announce “Ready”.
4. Working Jibsheet uncleats and holds sheet. Announce “Ready”.
5. Lazy Jibsheet wraps sheet a few turns on winch. Announce “Ready”.
6. Helm announces, “Helm’s Alee” and shifts tiller for the maneuver.
7. When jib luffs, simultaneously:
 - a. Working Jibsheet releases completely and grabs winch handle, now becomes Grinder.
 - b. Lazy Jibsheet hauls on sheet. Grinder inserts winch handle and trims jib.
 - c. Mainsheet shifts traveler.
 - d. Foredeck untangles sheets or sails as necessary.
8. When boat reaches new course, Helm steadies. Crew trims sails for point of sail.





Basic Steps – Gybing

1. Helm identifies a new aiming point for steering.
2. Helm announces, “Prepare to Gybe”.
3. Mainsheet begins trimming mainsail to minimize boom crash. Announce “Ready”.
4. Working Jibsheet uncleats and holds sheet. Announce “Ready”.
5. Lazy Jibsheet wraps sheet a few turns on winch. Announce “Ready”.
6. Helm announces, “Gybing” and shifts tiller for the maneuver.
7. Simultaneously:
 - a. Working Jibsheet releases completely and grabs winch handle, now becomes Grinder.
 - b. Lazy Jibsheet hauls on sheet. Grinder inserts winch handle and trims jib.
 - c. Foredeck untangles sheets or sails as necessary.
8. When boat reaches new course, Helm steadies. Crew trims sails for point of sail.





Basic Steps – Lowering Sails

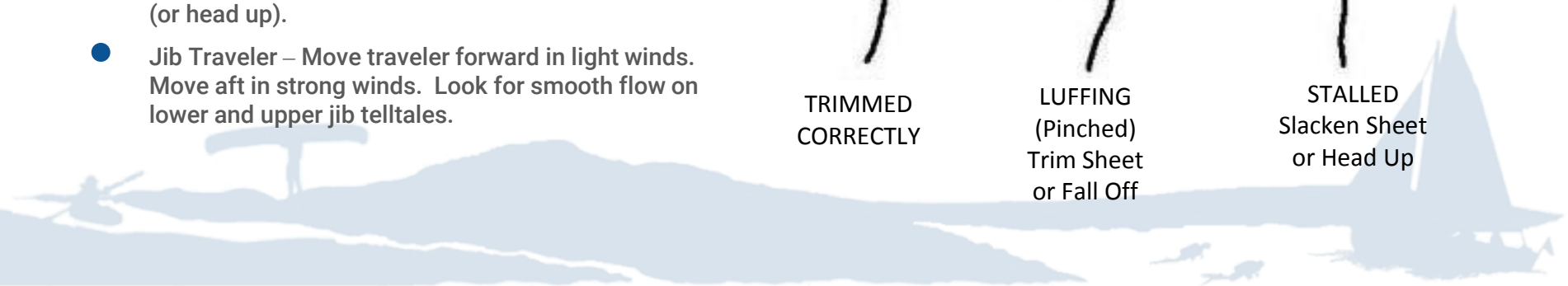
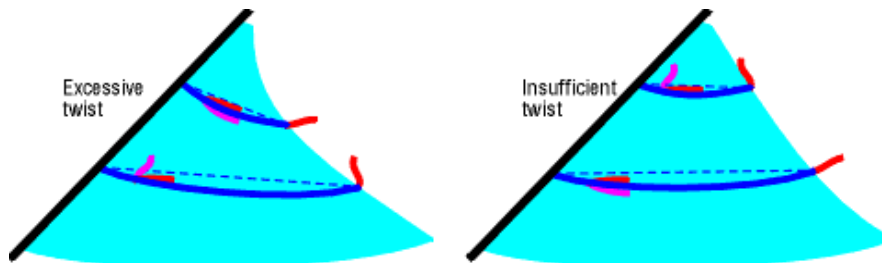
1. Start engine.
2. Steer bow to wind, low speed.
3. Trim all sheets.
4. Lower headsail.
5. Lower mainsail.
6. Steer desired course on motor.





Basic Sail Trim – Telltales

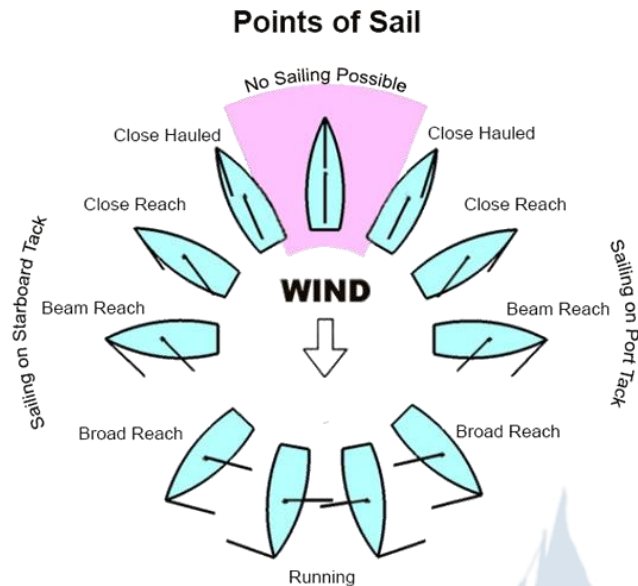
- Only useful when sailing to weather.
- “When in doubt, let it out.”
- Mainsail telltale are located on leech of sail. Should flow smoothly aft, with occasional flicks to windward. Slacken mainsheet until smooth flow, then tighten an inch.
- Jib telltales are located on both sides of sail, near the luff, in several places. Identify them as windward, and leeward. Both telltales should stream back smoothly. Flicking up or down indicates stalling. If the windward telltale is flicking, tighten the sheet (or fall off). If the leeward telltale is flicking, loosen the sheet (or head up).
- Jib Traveler – Move traveler forward in light winds. Move aft in strong winds. Look for smooth flow on lower and upper jib telltales.





Basic Sail Trim – Points of Sail

- Close Hauled – Sailing as close to the wind as possible (about 45 degrees). Sails are trimmed tight. Traveler positioned to windward to position boom at centerline. Helm must steer boat for wind to maintain propulsion. Movement is completely provided by lift in the sails.
- Close Reach – Between close hauled and beam reach. Movement provided by mostly lift with a little push. Mainsheet is slacked to position boom about 30 degrees from centerline, but use tell tales to adjust. Jib is slacked to provide even flow for both tell tales.
- Beam Reach – Wind is coming from the beam of the boat. Movement is about 50/50 push and lift. Boom is eased to about 45 degrees, but use tell tales to adjust. Jib is slacked to provide even flow for both tell tales.
- Broad Reach – Between beam reach and run. Movement provided by mostly push with a little lift. Mainsheet can be fully slackened. Jib is slackened to catch wind. Advise using whisker pole.
- Run – Sailing downwind. Movement provided by push only. Mainsheet can be fully slackened. Trim boom vang to maintain sail shape and boom tension. Jib is slackened to catch wind. Advise using whisker pole. Advise using wing-and-wing sail placement. Advise not sailing directly downwind to avoid accidental gybe. If must go downwind, consider using boom preventer.
- In Irons – A sailboat can't steer directly into the wind.





Parts of a Cruising Sailboat





Quiz

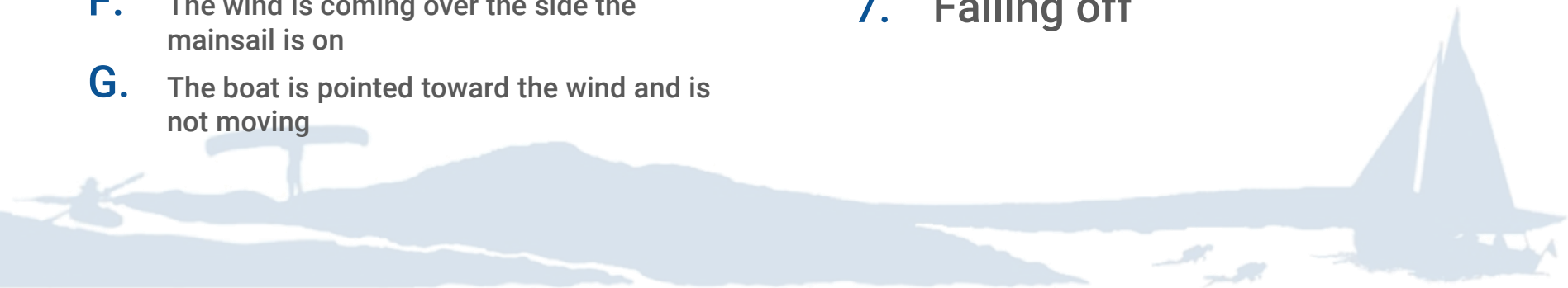
1. What direction do we steer when raising sails? When lowering sails?
2. Which sail is raised first? Which sail is lowered first?
3. What lines are slackened before raising the mainsail?
4. What names are used to identify the sail in the bow?
5. Who raises the mainsail? Who raises the headsail?
6. What is the difference between a working and lazy sheet?
7. When does the working sheet get released during a tack?
8. What bad things can happen if the boom crashes during a gybe?
9. How do we prevent a boom crash during a gybe?
10. How are sails trimmed when close hauled?
11. What equipment can be used to stabilize the headsail on a broad reach?
12. When in doubt...?
13. How should jib telltales look when properly trimmed?
14. How do we tension the mainsail when on a run?
15. Why must a tack be performed quickly once started?





Quiz - Matching

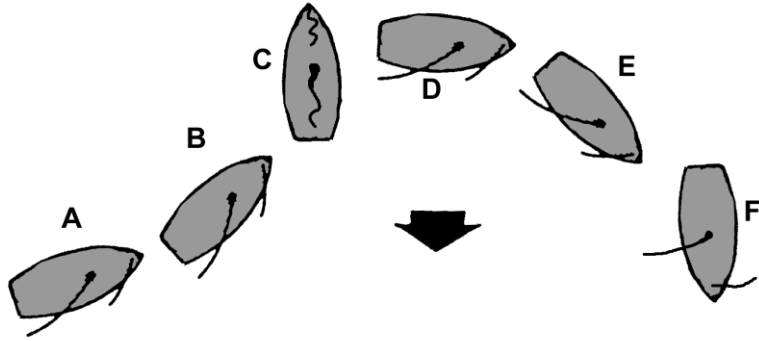
- A. The flapping of the sails
 - B. The wind is coming over the port side of the boat and the main boom is on starboard
 - C. The wind is coming over the starboard side of the boat and the main boom is on port
 - D. To turn the sailboat toward the direction of the wind
 - E. To turn the sailboat away from the direction of the wind
 - F. The wind is coming over the side the mainsail is on
 - G. The boat is pointed toward the wind and is not moving
- 1. Starboard tack
 - 2. Port tack
 - 3. Sailing by the lee
 - 4. In-irons
 - 5. Luffing
 - 6. Heading up
 - 7. Falling off





Quiz – Points of Sail Matching

1. Broad Reach
2. Beam Reach
3. Close Hauled
4. Run
5. In Irons
6. Close Reach





Quiz Matching

- A. Sheets, halyards /other lines that control sails
 - B. Wires that support the mast
 - C. Turning the boat away from the wind until the boat changes tacks
 - D. Changing tacks with the wind crossing the bow
 - E. At or towards the stern (on the boat)
 - F. At or towards the bow (on the boat)
 - G. A boats greatest width
 - H. Leaning action of the boat
- 1. Tacking
 - 2. Jibing
 - 3. Running rigging
 - 4. Standing rigging
 - 5. Heel
 - 6. Beam
 - 7. Forward
 - 8. Aft

