

Windward Mark Boat –Contributed by Dave Batchelor

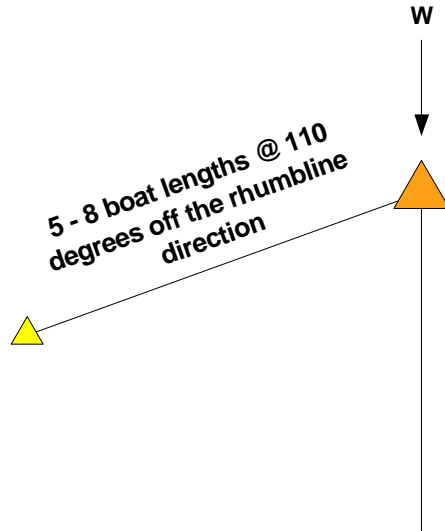
Summary - The responsibilities of the crew of the windward mark boat can be summarized as follows.

- Collect record and communicate wind direction and speed information to the recorder on the signal boat at regular intervals specified from the signal boat.
- Use the timed method to avoid having unnecessary radio chatter requesting readings. PRO should request readings from the recorder on the signal boat.
- Continuously observe the sailing angles of the boats on both windward and leeward legs to see that the course is a fair, i.e., boats choosing both tacks and both jibes and that the reach angles are appropriate for the classes involved.
- Immediately notify the signal boat if a significant shift is observed and start collecting and communicating wind data more frequently to determine if the shift will require a change of course.
- Set windward mark at the distance and direction from the signal boat as directed.
- Set offset mark if required.
- Be prepared to signal a course change using the “C” flag, a course board, and whistles or horns.
- Be prepared to take Mark Roundings. This is important as a safety issue, a timing of the race issue, and can be very helpful in resolving scoring problems.
- Be prepared to drop a new windward mark(s) or the finish line if a course change is signaled from the leeward mark.
- Locate the finish line upwind of the windward mark if applicable.
- Record finishers with finish time for the first boat to finish in each class or all boats if handicap scoring is being used.

Details

- **Boat Preparation**
 - Make a checklist of all the equipment that is expected to be needed and that could be needed in an emergency.
 - Boat Equipment
 - Gas and oil for the engine(s)
 - Fenders
 - Dock line
 - Tow lines
 - PFDs
 - Marks
 - Marks and alternate marks or bands
 - Anchor line and anchors for every mark carried with spares
 - Signal flags
 - Staffs for flags with attachment lines or ties
 - Race Committee Equipment

- Anemometer
- Wind indicator, yarn or flag
- Hand bearing compass
- Course calculator for reciprocals and mark angles.
- GPS
- VHF radios – take a spare
- Clipboard and pens or pencils
- Forms for recording required data plus some blank paper for notes, including wind chart, mark rounds, finish sheet, etc.
- Rescue equipment
- Safety blankets
- Personal Gear
 - Clothing foul weather gear that might be needed to keep you dry and comfortable.
 - Gloves for pulling marks
 - Sunscreen
 - Food and drinks (non-alcoholic)
- **Wind Readings**
 - Take wind direction reading with a hand bearing compass and a yarn or a flag on a stick. Stand where the wind is not being disturbed by the boat either as a wind shadow or by being deflected.
 - Record the time, direction and speed of the wind on a piece of graph paper or like the chart available on the race management web page under forms. (www.sayra-sailing.org. Also, record the date and race number.
 - The graph makes it easy to spot trends at a glance.
- **Setting Mark(s)**
 - The PRO will indicate the direction and distance from the signal boat that he or she wishes to have the windward mark located.
 - If using GPS the signal boat will give the coordinates of the signal boat which needs to enter into the GPS. I normally name their location as “Sx” with the “x” indicating the race number. Perform a “Goto” on the GPS back to the signal boat. The GPS will show the direction and distance back to the signal boat. Use simple math or a course plotter to get the required reciprocal course back to the signal boat.
 - Motor to the spot where the distance and direction to the signal boat are correct and anchor the first mark.
Capture the coordinates of the mark using the “Mark” function on the GPS naming it “Wx” as before. Record and report these to the signal boat.
 - The offset mark is set as shown in the diagram below using a hand bearing compass.



- The mark may also be set using a hand bearing course to monitor reciprocal back to the signal boat with an estimate of the distance.
- ALWAYS report when the marks have been set.
- **Signaling Change of Course**
 - Position mark boat to windward of the mark. In clear view of boats as they round the mark.
 - Display code flag “C” and make **frequent** sound signals
 - Display the course to the new mark.
- **Laying New Marks**
 - Lay the new windward mark(s) (Alternate color mark or contrasting band as specified in the Sis) or finish line as before.
 - ALWAYS report when the marks have been set.
 - Record and communicate the coordinates of the new mark to the signal boat.
 - Position the finish pin to give a line perpendicular to the rhumbline.
 - The old windward mark needs to be pulled as soon as possible after all boats have rounded and then hidden from view by deflating or covering to avoid confusion.
- **Crew Task List** – The following tasks need to be assigned to specific members of the boat's crew.
 1. Wind measurements
 2. Recorder – Wind measurements and finishes
 3. Setting marks
 4. Anchoring boat for finishes
 5. Displaying course changes
 6. Boat driver
 7. GPS or compass operator
 8. Line sighting
 9. Communicating with signal boat and other support boats
 10. Boat captain – The PRO should designate one individual to be responsible for seeing that all tasks are performed properly and on time.

11. **All members** of the team are responsible for monitoring and reporting to the PRO any change in conditions or situations that could affect the fairness of the competition.