



2021 MAST Committee Boat Guide

Thank you for serving as Committee Boat!

Check the schedule of Committee Boat Assignments for your assigned night. Any committee boat that cannot serve on its assigned night must find a replacement from the membership directory. Contact the Race Committee Chairperson if you cannot serve as Committee Boat on your scheduled night. A committee boat requires a minimum of 3 people, but MAST recommends at least 5. All committee boats must attend the annual training session in order to maintain their eligibility for committee boat duties.

This guide is a intended to be quick reference for Committee Boat responsibilities and is organized in the following order:

- ***Committee Boat Crew Roles***
- ***Before the Race***
- ***Setting the Course***
- ***Checking in boats***
- ***Starting the race***
- ***Delays, Cancellations, or Abandonment***
- ***During the race***
- ***Finishing the race***
- ***Submitting Finish Times***

If you have questions or concerns before or during the race, please reach out to your Race Committee Chairperson or members.

Race Chairperson:
Jay Raymond 203-856-3514

Race Committee Members:
Eliz Greene 414-793-5020
Nick Hayes 414-416-6276
Dick Kinney 262-573-5620



2021 MAST Committee Boat Guide

Committee Boat Crew Roles:

MAST recommends at least 5 people be aboard to effectively run and record the race.

Roles at each part of the race include:

Setting the course:

- Skipper
- 2 people to deploy the pin
- 1 person to record the compass heading from the pin to the windward (or next) mark
- 1 or 2 people to deploy the CB's anchor

Checking In Boats:

- 1 person on the VHF radio to confirm radio check-ins
- 1 person confirming "sail-by" check-ins
- 2 people recording checked-in boats

Starting the Race:

- 1 person counting down through the start sequence using GPS time to cue flags and horns
- 1 person sounding start sequence horn
- 1 person raising/lowering "P" flag
- 1 person raising/lowering division flags
- 1 person making radio announcements (can be the same person who is counting down)
- 1 person watching the start line for boats over early, sounding horn, and calling out boat name. This line is sighted by sitting directly under or behind the orange flag displayed on the boat and looking at center of the pin.

Finishing the Race:

- 1 person watching the finish and sounding horn. This line is sighted by sitting directly under or behind the blue flag displayed on the boat and looking at the center of the pin.
- 1 person spotting and calling out the names of approaching boats
- 1 person calling out times as the sounding horn is heard
- 2 people recording finish times (on scratch sheets)
- 1 filming or photographing the finish



2021 MAST Committee Boat Guide

Before the Race:

You'll find everything you need to run the race in two places:

1. The MAST Website:
www.MASTRacing.org.
You'll find the following documents to download under resources by clicking on "Racing forms and racing documents":

- Finish Time Submission Form
- Scratch Sheet by Boat Name
- Scratch Sheet by Sail Number



MAST RACING

Serious Fun, Not Serious Racing

Ente

HOME ABOUT > RACE RESULTS JOIN MAST **RESOURCES >** EVENTS CONTACT

Click on the link for:

- [Racing forms and other racing documents](#)
- [MAST meeting minutes](#)
- [Weather resources](#)
- [Lake Michigan marinas, sailing clubs, and yacht clubs](#)

Print several copies of each.

2021 MAST Finish Time Submission Form
Be SURE to send THIS FORM (not the scratch sheet by number) the night of the race ELECTRONICALLY elzgreene@mac.com / text 414-793-5020

Sail Number	Boat	Team	Finish Time
148	Aequitas		
594 or 711	Amok		
61101	Anafi		
26429	Anticipation		
15214	Antonia		
1881	Athena		
33698	Austral		
338	Bacchus		
h37	Bandito		
33428	BeBop		
51351	Berserker		
52286	Blue Pearl		
597	Borealis		

Conditions:
 Wind Speed & Direction:
 Sea State:
 If the race was delayed, please note the start times here:

Boat	Sail Number	Team	Finish Time
Minnehaha	Z-30		
Mirasol	93		
Nautical Sun	479		
Raido	None		
Rogue	50631		
Rum Line	40623		
Sabotage	32659		
Silvergirl	41265		
Skelday	25210		

2020 MAST Racing Scratch Sheet by Sail Number
Do not submit this sheet - use Finish Time Submission Form
Sail Number Order

Sail Number	Boat	Team	Finish Time
2522	Wild Card		
2706	Wild Goose		
2835	Cool Change		
4517	Firewater		
6851	Kristin Marie		
15214	Antonia		
25023	Eclipse		
25210	Skelday		
26089	Juniper		
26429	Anticipation		

2. The MAST Dock Box located on the MCSC grounds just East of the cranes and in front of the small shed. This area is accessible during the day from the docks and a public shore-side entrance. It is ONLY accessible after the race, or after hours, from the north crane docks. Contact a member of the Race Committee if there is difficulty gaining access to our dock box. We recommend that you take a flashlight, as the area is not well lit. The combination for the lock on the dock box is 5-4-1-0. You'll find the following equipment in the dock box:

- a. The Committee Boat Binder with this guide, division splits, sailing instructions, scripts, and forms.
- b. Air horns and extra canisters
- c. 2 large yellow inflatable marks (referred to as "the Pin")
- d. Inflator pump for marks
- e. 1 "keep away" buoy
- f. Clipboards & pens



2021 MAST Committee Boat Guide

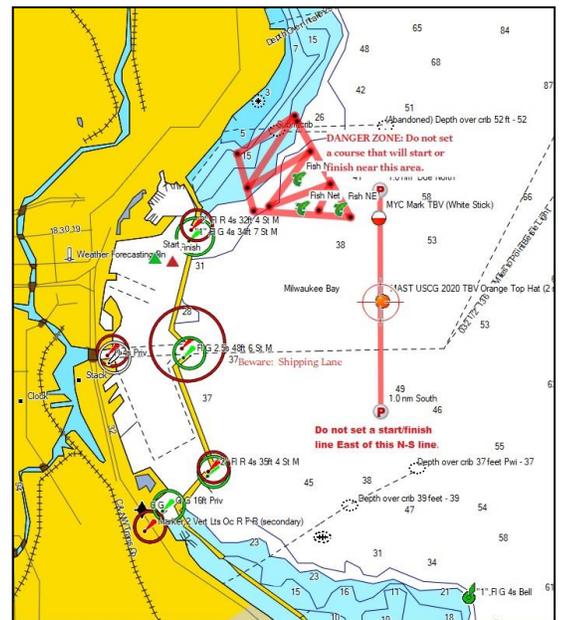
- g. The following flags to attach to the boat: Orange Start, Blue Finish, Abandon, Postpone
- h. Division (white, yellow, green, & blue) and “P” flags on poles

Setting the Course:

All courses are sailed in an anti-clockwise rotation keeping marks to port.

Keep the following in mind when setting a Windward/Leeward course:

- The Committee Boat should position the Starting Mark approximately 1 mile from the MAST Center Mark (except where noted).
- Except as noted below for a west wind, the Committee Boat should attempt to position itself for an upwind start, with the Starting Mark to-port.
- The starting line should not be positioned East of a theoretical line running North - South through the Center Mark. I
- If the wind is due West, the Committee Boat should NOT motor 1 mile East of center; instead, it should position itself 1 mile West of center for a downwind start. By staying west of the theoretical centerline, we can save time for the Committee Boat to set up and take down the race marks.
- A race start/finish shall not be set in the shallow waters between the breakwater and water treatment plant as indicated in the following illustration.
- Should wind conditions require that a course start/finish be set in this area, the course shall be shortened in distance so that the start/finish is sufficiently located outside of this area.
- In addition to shallow water a close consideration must be given to a commercial “Fish Trap” area located about 1 nm to the NW of the MAST mark. The trap lines are marked with small orange buoys; however, buoys can be difficult to see from a distance. The Committee Boat should consider shortening the course if necessary to avoid a starting line within the trap area.

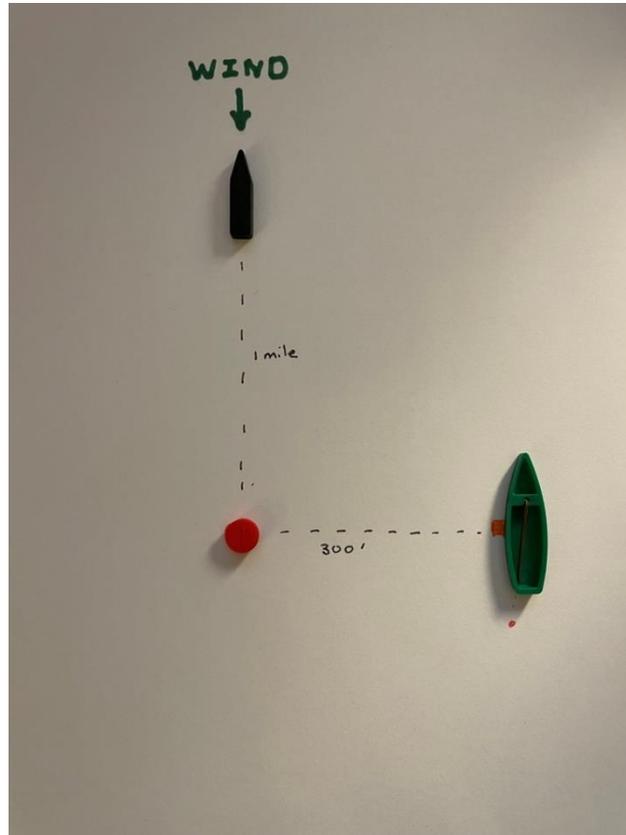


All windward /leeward races will be twice around unless they are shortened by a signal from the Committee Boat, (Shorten-Course flag - International S” flag, and by hail).



2021 MAST Committee Boat Guide

Setting a Windward/Leeward Course.



1. Inflate the yellow mark (most people choose to do this before leaving the dock)
 - a. Do not over-inflate the mark. The mark should never be hard to the touch.
 - b. There are two valves on the mark: a smaller valve for inflating using the orange 12V pump, and a larger valve for deflating.
 - c. Connect the inflator pump directly to a battery or battery charger using the red and black clips.
 - d. Make sure the large valve is closed tightly and not crossed threaded.
 - e. Unscrew the small valve.
 - f. Connect the pump and turn it on.
 - g. Inflate (but do not over-inflate) the mark.
 - h. Close the small valve.
 - i. To deflate the mark after you have it back on your boat, unscrew the large valve and let the air escape.
 - j. ***Please be sure to hang on to cap to prevent losing overboard.***
 - k. *Report any deficiencies of equipment to the Race Chairperson.*
2. Navigate to 1 mile directly downwind of the MAST Mark to drop the "Pin"
 - a. Using a wind instrument or flag to verify the bow of the boat is pointing directly into the wind and at the MAST Mark.



2021 MAST Committee Boat Guide

- b. Verify the Yellow mark anchor is securely attached to the mark
 - c. Drop the mark anchor
 - d. Feed the anchor line out and drop the mark in the water.
 - e. Record the compass heading and distance to the MAST Mark
3. Navigate to set the boat end of the line.
- a. The committee boat should be to starboard of the pin.
 - b. The length of the start line should be at least 300 feet** (approximately 0.1 Nm on your GPS). Remember that it is better to have a too long line than a too short one!
 - c. A line that is too short compresses the fleet into a smaller area and increases the risk of contact between boats or with the Committee Boat.**
 - d. The Committee Boat should make every effort to set a starting line that is directly perpendicular to, and exactly on the wind-line to/from the upwind mark.
 - e. Anchor the boat: Turn windward and navigate a sufficient distance (3 to 5 boat lengths) to set sufficient scope and drop anchor
 - f. The water depth offshore can range from 20 to 60 ft., with a bottom composition of sandy mud. Danforth style anchors perform best in this type of bottom. With moderate wind and wave conditions, a substantial scope on the anchor rode is required to set the anchor and prevent dragging. It is recommended that the anchor rode should be at least four times the water s depth.
 - g. Anchoring in heavier wind and waves may require in excess of seven times the water s depth. For the purposes of anchoring the Committee Boat for MAST racing, it is often convenient to splice a spare halyard or sheet to your existing anchor rode in order to obtain enough scope to easily set the anchor.
 - h. Display the orange flag to mark the start line.
 - i. Deploy the “keep away” buoy from your stern, tie it off such that it is ~10 feet away from your transom. *Setting of this buoy is not required. It is a means to create space between your boat and racers when they approach the start line, providing a buffer in case there should be an issue with spacing between starting boats.*
 - j. The “keep away” buoy is considered part of the Committee Boat and is deployed to create an additional buffer between the stern or bow**

Approximate GPS Mark Locations: (GPS locations have not been verified at the time of this printing)

MAST:

N43 02.195 W87 50.764

SSYC W:

N43 01.051 W87 50.826

SSYC C:

N43 01.315 W87 49.903

Bell Buoy:

N42 59.349 W87 49.839

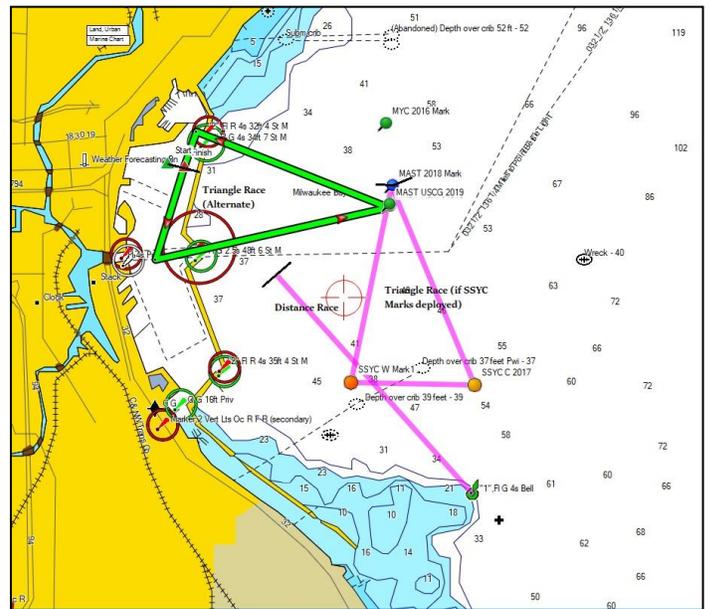


2021 MAST Committee Boat Guide

of the Committee Boat. A starting boat that touches this buoy has hit a mark of the course and must take a penalty.

Setting a Distance Course.

- The location of the starting line will be approximately located outside the main gap, immediately South of the shipping channel.
- The Committee Boat should set the starting line perpendicular to a direct line to the Bell Buoy.
- If at all possible, an upwind or downwind starting line should be set.
- The location should be approximately 2.5 to 3.0 nm from the Bell Buoy.
- **The length of the starting line should be at least 300 feet** (approximately 0.1 NM on your GPS).

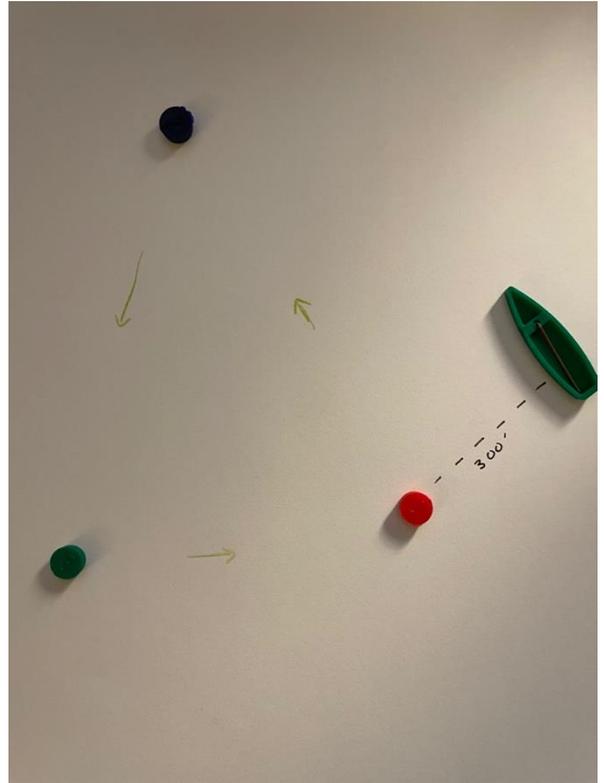




2021 MAST Committee Boat Guide

Setting a Triangle Course.

- The location of the Triangle Race starting line will be located at the MAST Race Mark, which serves as the pin end of the starting line.
- An inflatable mark is not deployed as the pin end of a Triangle Course race. However, Committee Boats should consider bringing the inflatable mark along to make altering the course possible.
- **The length of the start line should be at least 300 feet** (approximately 0.1 NM on your GPS).
- The Committee boat should set the start line perpendicular to the first leg and the finish line perpendicular to the last leg.
- The course will be south to the SSYC W Race Mark, then E/NE to the SSYC C Mark and finally back to the start /finish mark.



Adjusting the Course:

Under special circumstances where a course other than the scheduled course is run continuously display the **Come Within Hail** (International L" flag).

On nights scheduled for a distance or triangle race, if the weather conditions are not suitable for the scheduled race, set up an alternate triangle course (for rough wave conditions that would make it difficult to set a line outside the wall) or a standard windward/leeward course (for lighter wind conditions that would make it difficult to complete a distance race) and advise competitors on VHF Channel 79 and by hail.

Alternate Triangle Course:

This course should be used in challenging wind and wave conditions that make anchoring outside the wall difficult or uncomfortable for the committee boats. The start and finish lines will be set behind the break wall just to the SW of the North harbor Gap. Attempt to set the start/finish line perpendicular to the wind for an up or down wind start if at all possible. From the start, racers will head south and through the Main Harbor Gap, then proceed to round the MAST mark to port and head in the North Gap to the finish.



2021 MAST Committee Boat Guide

Triangle Courses and Distance Courses are normally sailed in an anti-clockwise rotation. The direction may be reversed at the discretion of the committee boat as well as the modification of the starting mark.

Checking in Boats:

1. Announce: MAST Racers MAST Racers MAST Racers this is your Committee Boat _____(boat name) We are on station approximately ____ mile ____ (direction) of the MAST Mark and are ready to check in boats.
2. Record and confirm boats that check in on **Scratch Sheets** (these are provided in boat name order as well as by sail number order)
3. Verify if the boats will fly a spinnaker in races where they are allowed.
4. Record the wind and sea conditions on **Finish Time Submission Form**.
5. Turn on RaceQs. This is not required, but makes mapping the course on the RaceQs app more accurate.

Starting the Race:

Crew members should move to their places for finishing roles.

- The person counting down through the start sequence should be near the crew responsible for the flags and horns. This person should also, using GPS time, record actual start times of each division if they differ from 6:15, 6:20, 6:25 and 6:30
- The people raising and lowering the flags should be on the lee end of the boat and visible to the fleet. The flags are the official signals and should be clearly displayed.
- The person sounding the starting horn should be at the lee end of the boat and should hold the horn high above their head pointed toward the starting line.
- The person making radio announcements should be able to see and hear the spotter
- The person spotting the start line should be seated below or behind the orange starting flag and site a line from the flag to the center of the pin. This person is also responsible for recording any boats over early and should have a scratch sheet handy. **(NOTE: only the hull counts, not sails, sprits, anchor rollers, or bow pulpits)**
- Having a camera set, or having a crew member record the start is very helpful.

At 6:00 pm: Make an announcement via VHF channel 79

Mast racers, mast racers, mast racers, [pause] This is your committee boat for tonight [announce your boat name]. Tonight s race will be [Standard windward/leeward twice around] [Distance to Bell Buoy] [Triangle] [Alternate Triangle] [describe the course] We are setting up the Starting Line [give



2021 MAST Committee Boat Guide

description of where the start line is]. We anticipate an on time start at 6:15 (or give an updated start time) A Reminder that all boats are to keep clear of the starting area until your preparatory signal or face a time penalty. Thank you for your cooperation. If you are using Race Qs, now is a good time to turn it on. If you haven't already, please check in for tonight's race. Have a great race. Mast Committee Boat standing by on Seven Nine. (This script is available on the cover of the Committee Boat Binder).

At 6:05 pm: Make an announcement via VHF channel 79

Mast racers, mast racers, mast racers, [pause] This is your committee boat for tonight [announce your boat name]. Tonight s race will be [Standard windward/leeward twice around] [Distance to Bell Buoy] [Triangle] [Alternate Triangle] [describe the course] We anticipate an on time start at 6:15 (or give an updated start time) The warning signal for division one will be in approximately 5 minutes. If you are not in division one this is a good time to start making your way out of the starting area. This is a reminder that you must keep clear of the start area until your preparatory signal. Thank you for your cooperation. If you are using Race Qs, now is a good time to turn it on. Mast Committee Boat standing by on Seven Nine.

At 6:09 pm: Make an announcement via VHF channel 79

Mast racers, mast racers, mast racers, [pause] there is one minute to Division One's warning signal.

Committee Boats are encouraged to narrate the start sequence via VHF channel 79 as follows: (you may also leave the mic open to broadcast the horn signal)

- Division 1 Warning signal in 5,4,3,2,1
- Division 1 Preparatory signal in 5,4,3,2,1 Division 1 boats may now enter the starting area
- [At the lowering of the P flag and horn] 1 minute to Division 1 start
- Division 1 start in 5,4,3,2,1
- Division 2 Preparatory signal in 5,4,3,2,1 Division 2 boats may now enter the starting area
- [At the lowering of the P flag and horn] 1 minute to Division 2 start



2021 MAST Committee Boat Guide

- Division 2 start in 5,4,3,2,1
- Division 3 Preparatory signal in 5,4,3,2,1 Division 3 boats may now enter the starting area
- [At the lowering of the P flag and horn] 1 minute to Division 3 start
- Division 3 start in 5,4,3,2,1
- Division 4 Preparatory signal in 5,4,3,2,1 Division 5 boats may now enter the starting area
- [At the lowering of the P flag and horn] 1 minute to Division 4 start
- Division 4 start in 5,4,3,2,1



2021 MAST Committee Boat Guide

Start Sequence: The person counting down uses GPS time to cue the following

Time	Flags	Horn	
6:10	RAISE White Flag	1 second	Division 1 warning
6:11	Raise P Flag (Blue with White Square)	1 second	Division 1 preparatory
6:14	Lower P Flag	3 seconds	
6:15	Lower White Flag Raise Yellow Flag	1 second	Division 1 start Division 2 Warning
6:16	Raise P Flag (Blue with White Square)	1 second	Division 2 preparatory
6:19	Lower P Flag	3 seconds	
6:20	Lower Yellow Flag Raise Blue Flag	1 second	Division 2 start Division 3 Warning
6:21	Raise P Flag (Blue with White Square)	1 second	Division 3 preparatory
6:24	Lower P Flag	3 seconds	
6:25	Lower Blue Flag Raise Green Flag	1 second	Division 3 start Division 4 Warning
6:26	Raise P Flag (Blue with White Square)	1 second	Division 3 preparatory
6:29	Lower P Flag	3 seconds	
6:30	Lower Green Flag	1 second	Division 4 Start

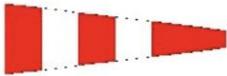
Over Early: If any part boat's hull (sails, sprits, spinnaker poles, anchor rollers, or bow pulpits **are NOT part of the hull**) is over the start line at the start signal the spotter should sound a second horn and shout the name or sail number of the boat: "Boat Name over early!!" The person making radio announcements should repeat this hail. It is the skippers responsibly to react as he or she wishes to the foul. Note the penalty on the score sheet. If the boat circles either end of the start line and restarts, note that as well.



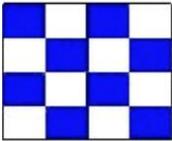
2021 MAST Committee Boat Guide

Cancellation, Postponement, or Abandonment

The Committee Boat makes the decision to cancel or abandon a race. However, the Committee Boat may consider consulting with the Race Committee Chairperson at any point about the decision to cancel or abandon. In addition, the Committee Boat may choose to poll the fleet on VHF Channel 79 for input on the decision to start, continue, or shorten a race.



If it is necessary to delay the race starting sequence past its normal time, (if you have to reset an anchor for example) fly the **Race Postponed'** flag and make an announcement on VHF Channel 79. Make an announcement and lower the Race Postponed flag 1 minute before beginning the starting sequence.



If the Committee Boat decides to cancel the race before the start or abandon a race after it has started the Committee Boat shall raise the **Race Abandoned Flag**, make repeated sounds from the signal horn, and make an announcement on VHF Channel 79.

Light Winds:

- The Committee Boat shall not cancel a race due to light winds until after 7:15 P.M.
- The Committee Boat may shorten a race to a single time around the course, or to end at a different mark if it appears that a significant number of boats will not be able to finish.
- It is recommended shorten the course after the leading boat is within 100 feet of the Committee Boat on the second leg.

Weather Conditions:

- The Committee Boat may cancel or abandon a race due to uncertain weather conditions.
- Visibility, fog, wind strength, and wave heights are all conditions that may render racing in unsafe conditions.



2021 MAST Committee Boat Guide

- When deciding whether conditions are safe for racing, consideration should be given to the safety of all the boats in the fleet, not just the largest boats or the majority of the boats.
- Anytime fog conditions exist prior to a race or occur during the race, the Committee Boat could call for a race cancellation or abandonment, especially if conditions deteriorate to less than ½ mile visibility.
- Wind speeds consistently over 25 knots or consistent gusts over 30 knots could be considered unsafe.
- Small craft weather warnings with wave heights in excess of 6 feet could be a consideration for race cancellation or abandonment. Wave heights, along with strong winds, are perhaps the best gauge for race cancellation.
- As always it is usually the combination of conditions (wind strength, water temp, and wave height) that create an unsafe situation.

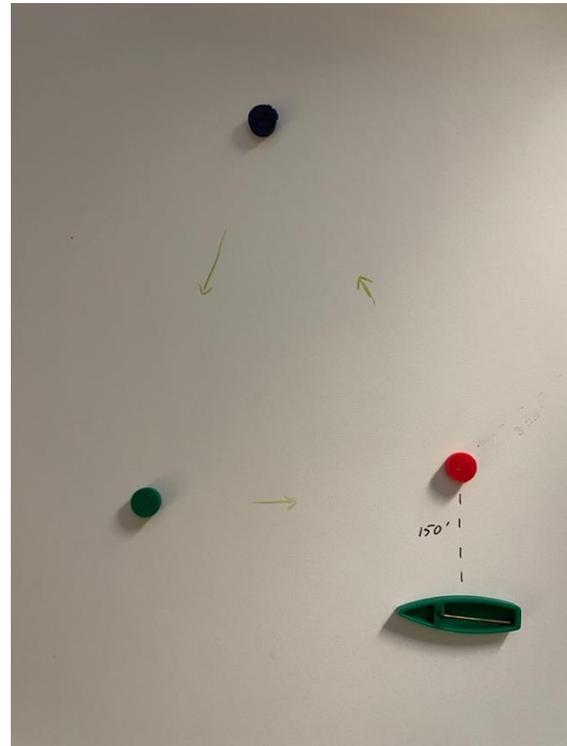
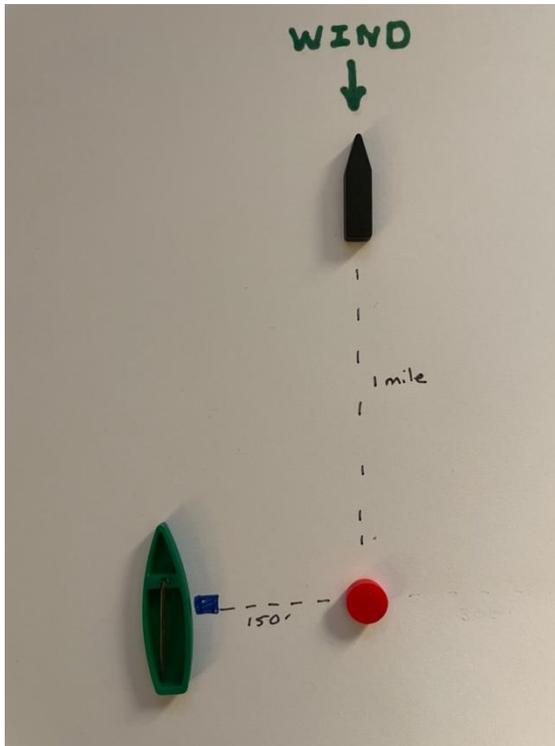
During the Race

Re-Anchor and Set the Finish Line:

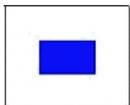
- After all yachts have started, re-anchor so that finishing boats will leave the buoy to port, and cross a finish line, perpendicular to the last leg of the course.
- This is done for all race courses.
- The Committee Boat should move as soon as possible after the Division 4 start.
- The finish line should be approximately 150 feet. Note that the finish line is approximately half the distance of the starting line. This is especially important late in the season when boats often are finishing in the dark.
- Remove the orange flag and display the blue finish flag.



2021 MAST Committee Boat Guide

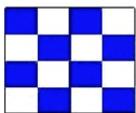


Shortening the Race:



All windward/leeward races will be twice around unless conditions might not permit at least one boat in each division to finish in the allotted time. If a decision is made to shorten the course, fly the **Shorten-Course flag**. Please make a note on the race results, that the course was shortened, and by how much. There should be at least 7 knots of wind in order to sail a distance race.

Abandoning the Race:



If it is necessary to abandon a race; fly the **Race Abandoned'** flag (see illustration above), sound the horn in repeated short blasts, and make an announcement on VHF Channel 79. If at all possible, complete the race by shortening the course rather than abandoning the race.

Finishing the Race:

Crew members should move to their places for starting roles.

- The person spotting the finish line should be seated below or behind the blue finishing flag and sight a line from the flag to the center of the pin. This person is also responsible for sounding the horn when the hull of the boat crosses the



2021 MAST Committee Boat Guide

finish line. **(NOTE: only the hull counts, not sails, poles, sprits, anchor rollers or bow pulpits)**

- The person calling out times uses GPS times and should announce the time including seconds after each horn.
- The people recording finish times should be able to hear the horns and times clearly.
- The crew member recording the finish (including the sound for horns and times) should be positioned near the spotter.

Recording Finish Times:

Record finishing times of each yacht, such as 7:37:21 p.m., 21 being seconds. Use the same timing device to record division starts and individual yacht finishes. A boat finishes at the moment any part of her **hull** crosses the finish line. If a boat retires from the race before finishing, mark RET as their time.

Submitting Finish Times:

1. The two recorders should compare times and refer to the recording to resolve any differences.
2. Write the verified times on the Finish Time Submission Form and double check them.
3. **Please make sure that all handwritten information is legible.**
4. Take a **clear** cell phone picture (with adequate light) Finish Time Submission Form.
5. **Send this picture to the Race Committee by emailing elizgreene@mac.com or texting 414-793-5020 after verifying all your data immediately following the race.**
6. The sooner race times are received, the sooner they can be posted.
7. Return equipment to the dock box with the Finish Time Submission Form after the race.
8. Recorded times may be referenced in case of discrepancy.

Give out high-fives and have a beverage:

Thanks for serving as the MAST Fleet Race Committee!