



2020

Summer Racing Series

- Notice of Race (NOR) • Sailing Instruction (SI) • Committee Boat Duties



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1. WELCOME TO THE 2020 MAST RACING SEASON

1.1 Preface

This is the 33rd edition of our racing guide presented to all MAST racing members to acquaint them with the racing rules and procedures to be used this season. It is also used to provide information to interested Milwaukee area yacht owners, and members of McBoat, the Milwaukee Community Sailing Center, South Shore Yacht Club, and the Milwaukee Yacht Club who wish to participate in our Friday Night Racing Series. Additional copies can be viewed and downloaded from our website.

(<http://www.mastracing.org>)

Included in this one document are:

1. **General Mast Information**
 2. **The Notice of Race**
 3. **The Sailing Instructions**
 4. **Committee Boat Duties**
- 2.6 **Race Schedule**

1.2 Introduction

MAST racing is structured to allow a safe and supportive environment for sailors and families who want to try their hand at racing. We race Friday evenings in the waters just outside the Milwaukee, Wisconsin breakwater. Our emphasis is on learning and having fun. *Due to the COVID-19 pandemic, we have found the need to modify our season schedule as well as our normal social activities.*

Our format consists of *four* specific race courses (see diagrams in section 3.7):

- (a) Standard: Windward /leeward with approximately 1 nm legs to MAST Buoy (Approx. 4 nm)
 - (b) Distance: Out and back to the green bell buoy just south of Milwaukee Harbor (Approx. 6 nm)
- And
- (c) Triangle: Start line (MAST Buoy) to the SSYC W race mark, then to the SSYC Center Race Mark to the finish line. The finish line is always directly adjacent to the starting line. (Approx. 4.9 nm)
 - (d) Alternate Triangle: Start line inside of the Break wall north gap area, south to the Main gap, out and then round the MAST mark to port, then in through the north gap to the finish line. (Approx. 5.0 nm). *This race will be run if there are no SSYC marks to round or conditions require the Committee Boat to find safer anchorage.*

If needed during the 2020 season during Fridays where the wind is deemed too low to race, we may institute a short course toward the south of the Milwaukee Bay to take advantage of usually more steady prevailing winds. If this course is called, detailed information will be given on VHF 79

We rely on 'racer-volunteers' to serve as Committee Boats for one race during the summer. Skippers and crew are encouraged to sail on yachts other than their own, so as to exchange ideas, and get to know each other. While our races are hard fought, our goals are to avoid the kind of aggressive sailing that threatens the safety of our boats and their crews. *The Committee Boat is not considered part of the Race Committee for enforcement purposes. Their responsibility is limited to those outlined in **Section 4. Committee Boat Duties.***

In tandem with these thoughts, let us respectfully request and remind our racers to always keep a look-out /hailer; that sailing into dangerous situations regardless of rights must be avoided. Please report any problems to the Race Committee. Repeat offenders will be asked to improve their sportsmanship or find a more competitive racing venue. Remember that a lot of beginners sail with us. Therefore, please assume that some may be sailing with less knowledge of the rules than you may have. Give them way. Let's have a safe, spirited and friendly racing season.

In order to attract new members, we will make available an experienced crew member for new boats that have concerns about racing for their initial races. Please contact Ed Bushman, Race Committee Chairperson, (414-881-9452 or takeela3692@gmail.com) or one of the Race Committee members prior to the race day.

1.3 Race Committee

The Race Committee consists of the Race Chairperson and a minimum of two additional MAST members in good standing as appointed by the Commodore. All Race Committee decisions shall be final.

Good Luck in 2020! The MAST Race Committee

2. Notice of Race

2.1 Rules

Races shall be governed by The Racing Rules of Sailing, 2017-2020, and US Sailing Prescriptions, 2017-2020.

Adherence to ISAF Offshore Special Regulations, 2016-2017, of the International Sailing Federation for Category 4 Monohull Sailboats is strongly encouraged. Free copies of these regulations are available for download at <http://www.sailing.org/>.

For a plain language summary of the most important racing rules, please review "The Basic Sailboat Racing Rules All Racers Should Know" document. This document is available for free download from the MAST home page at www.mastracing.org.

2.2 Advertising

Advertising on a boat shall comply with the requirements of ISAF Regulation 20. A copy of this code is available at <http://www.sailing.org/>.

2.3 Eligibility & Entry

The MAST Summer Racing Series is open to all sailboats that have registered with MAST and paid the appropriate fees. Boats should be of a seaworthy type construction appropriate for sailing in the waters within 4 nautical miles of the "center gap" of the break wall in the Outer Harbor/Lake Michigan at Milwaukee, Wisconsin. MAST reserves the right to limit the number of entries.

US Sailing Membership, while not required, is strongly encouraged. Membership information is available at <http://www.sailing.org/>.

2.35 Certificate of Insurance

Per the MAST bylaws Article 3.04. All boats participating in MAST events shall carry liability insurance of \$300,000 or greater.

2.4 Boats/Measurement

Measurement is not required. Boats with a valid handicap, rating, or class measurement certificate shall provide the certificate for determination of racing handicap. Boats without a certificate shall be provided a handicap by the Race Chairperson based on boats of similarity and documentation provided. *Whenever a LMPHRF HCP is available for the MAST boat or a similar boat, it shall be used in lieu of other ratings providing there are no other determining factors for adjustment.*

Whisker poles or spinnaker poles that attach to the mast are allowed. Other poles (boat-hooks etc.) that are continuously hand held are also allowed. The pole must be applied to the clew of the headsail or the sheet near the clew. It is recommended that Crew tending whisker poles should wear PFD's and not lean out over the lifelines. Whisker poles may be employed on either the same or opposite side as the main boom.

There are no restrictions on the length, use, or type of whisker pole other than those noted above.

Spinnakers, and cruising spinnakers flown from a pole, are allowed only for specific races as noted in the Schedule located in the Sailing Instructions. Reachers and other light air headsails that attach to the forestay and can be rated as genoas are allowed. Asymmetric spinnakers that exceed 160% of "J" are considered in the same category as symmetric spinnakers.

When spinnakers are allowed in specific races, a yacht wishing to use a spinnaker must advise the committee boat prior to their start. A time-on-time penalty will apply in these cases. Not confirming with the race committee will incur an additional 5-minute penalty.

2.5 Fees

Mast membership is \$30 for the season. Any mast member who wishes to register a boat to race in MAST races for the season may do so. The boat registration fee for the season is \$55. Boats must be registered to race in order to be scored for the season.

The Skippers of all racing boats shall also be a member of MAST. While not required, crew of racing boats are highly encouraged to become members of MAST. *Please support the fleet.*

2.6 Schedule of Events

Races shall be held on Friday evenings starting on Friday, *June 19, 2020*. The last race will be Friday, *September 18, 2020*. *There will be no make-up races scheduled*. The warning signal for the first start shall be 6:15 PM. The MAST Fall Regatta will be held Saturday, *September 19, 2020*, *details to be provided via separate NOR*. The race schedule may be modified as required to compensate for conditions outside of MAST's control. These modifications will be noticed via email or website postings.

COVID 2020 Friday Night Race Schedule and Committee Boat Assignments

Race #	Race Date	Committee Boat	Course	Special Notes
1	06/19/2020	Rum Line	Windward / Leeward 1	Enjoy!
2	06/26/2020	Austral	Windward / Leeward 2	Spinnaker Allowed
3	07/03/2020	Firewater	Distance Race to Bell	Spinnaker Allowed
4	07/10/2020	Cattywampus	Windward / Leeward 3	?Pizza Party?-MCSC
5	07/17/2020	Antonia	Triangle 1	Spinnaker Allowed Hook/MAC Races
6	07/24/2020	Anticipation	Windward / Leeward 4	
7	07/31/2020	The 19 th Hole	Triangle 2	Spinnaker Allowed
8	08/07/2020	SOGO	Windward / Leeward 5	Spinnaker Allowed
9	08/14/2020	Skelday	Triangle 3	Spinnaker Allowed ?Pizza Party- North Pavilion
10	08/21/2020	Blue Pearl	Windward / Leeward 6	
11	08/28/2020	Nautical Sun	Triangle 4	Spinnaker Allowed
12	09/04/2020	Silvergirl	Windward / Leeward 7	Spinnaker Allowed
13	09/11/2020	Anafi	Triangle 5	Spinnaker Allowed
14	9/18/2020	Vela	Windward / Leeward 8	
15	09/19/2020	Amok	Almost Fall Regatta (Separate regatta, not counted in season standing)	Pot Luck North Pavilion
16	9/26/2020	_____	?Louie's Last Regatta?	Not a MAST Race

(8-W/L w/ 3 Spin, 5 Triangle w/ Spin, 1 Distance w/ Spin)

2.7 Sailing Instructions

The sailing instructions are attached within this manual, *Section 3*.

2.8 Penalties for Breaking Rules of Part 2

The penalties for breaking rules of Part 2 of The Racing Rules of Sailing, 2017-2020, shall be determined at the sole discretion of the Race Committee.

2.9 Scoring

The minimum number of races a yacht must sail to qualify for the prizes in the Division or MAST Cup shall be **9 of the possible 14 races**. If races are canceled or abandoned, the number of races needed to qualify will be 1/2 the races held, rounded down, plus 2 (i.e. 13 races => 8, 12 races => 8, 11 races => 7, etc.)

Division Scoring:

Division standings will be calculated using the **best 9 of the possible 14 races**.

- If races are canceled or abandoned, the number of races scored will be 1/2 the races held, rounded down, plus 2 (i.e. 13 races => 8, 12 races => 8, 11 races => 7, etc.)
- In the event of a tie at the end of the season, both boats will be awarded the earned position. There are no tie breakers.

Fleet (MAST Cup) Scoring:

Yacht-of-the-year (MAST Cup) is awarded to the boat with the lowest score in the fleet. This score is calculated using the **best 12 of the possible 14 races**.

- If races are canceled or abandoned, the number of races scored will be the total number of races held minus 2.
- In the event of a tie at the end of the season, both boats will be awarded the earned position. There are no tie breakers.

The following applies to Division and Fleet Scoring:

- Points will be awarded for races using a low point scoring system, as follows: 1st place = 0.75 pt., 2nd place = 2 pt., 3rd place = 3 pt., etc.
- *The Race Committee has the right to make corrections and adjustments as the season is scored. All adjustments made and final results are at the sole discretion of the Race Committee.*
- Boats who start but do not finish a race:
 - A yacht scored as '**DNF**' will receive a score of one more point than the number of boats checking in for the race in their division (division scoring) or fleet (MAST Cup scoring).
 - A yacht that appears at the starting line, checks in with the Committee Boat, and then fails to start for any reason will be scored as a '**DNF**.'
- Boats who do not compete in a race:
 - A yacht scored as '**DNC**' will receive a score equal to the number of boats in their division (division scoring) or fleet (MAST Cup scoring).
- Boats who register after the first race:
 - For each of the missed races the yacht will receive points equal to the total number of boats registered in its division and/or the fleet plus 2.
- Committee Boat Scoring:
 - Individual registered yachts may be asked to serve as Committee Boat once during the season. A yacht that does not race because of Committee Boat obligations will be given a score of 1 for that race. This score will be awarded even if a race is canceled or abandoned, so long as a good faith effort is made to conduct the race.
- Canceled Race Scoring:
 - A canceled race is one in which no boats start and is scored:
 - the Committee Boat is given a score of 1
 - all other boats are given a score of 2
 - The points are added to the final score for both Division Standing and MAST Cup.
- *Abandoned Race Scoring:*
 - *A race started but then abandoned for whatever reason is scored:*
 - the Committee Boat is given a score of 1
 - *boats that checked-in are given a score of 2*
 - *all other boats that did not check in will be given a score of 3.*
 - *The points are added to the final score for both Division Standing and MAST Cup.*
- Guest Skipper Point Reduction:
 - Skippers who serve as crew on another yacht, for at least one race during the season, will receive a one-time only, 0.5pt. deduction from their series point total, provided their boat does not race.

Handicap /PHRF Adjustment:

- **Handicap Adjustment Factor (HAF):** Finishing times are adjusted using a handicap correction factor formula similar to the US SAILING Time on Time formula.
 - **Correction Factor = $A/(B+PHRF)$**
 - Where “B” is a wind factor, 600 for low, 550 for average and 480 for high but for MAST to keep it simpler we will use the average wind number (550).
 - “A” is adjusted so the Correction Factor equals 1.0 for the average boat in the fleet.
 - Therefore, the formula to determine the correction will be: Correction Factor = $720/(550+PHRF)$
- **Spinnaker Adjustment Factor (SAF):** For purposes of clarification, MAST uses 'Spinnaker' handicaps (HCP). Available databases do not provide sufficient information to fairly handicap all yachts in our fleet, with 'non-spinnaker' handicaps.
 - In specific races as noted in the Sailing Instructions, boats may fly a spinnaker.
 - Boats choosing to fly a spinnaker will be penalized 13.848 sec. for each 10 minutes sailed.
- **Division Splits:** The fleet will be scored in three separate divisions.
 - The groupings for the divisions are dependent upon a yacht's adjusted PHRF rating and are determined by the Race Chairperson. The groupings for the divisions are determined after the Spring Skipper's Meeting and prior to the first race.
 - The objective is to balance the size and relative handicaps of the boats in each division. Contact the Race Chairperson if you are unsure of your division or need a PHRF assignment.
 - Yachts without a valid PHRF rating will be assigned a PHRF based on sister ships registered with the LMPHRF database, or similar source. If no similar handicapping data is available, a PHRF will be assigned on the basis of the best judgment of the Race Chairperson.
 - Note: Score sheets display only to seconds but in the event of a tie the calculation is more accurate.
- **Week-to-Week PHRF Adjustment:** MAST encourages members who are new to racing or race “for fun” to come out every week and race. At the same time the scoring system must present a sufficient challenge to those who were experienced racers to do their best. To that end, all boats start out with their assigned PHRF rating and then after each race the ratings are adjusted based on how a yacht placed in the race. The PHRF rating of those who finish are adjusted down (forcing them to “give more time” to other boats). For those who farther down in the division or fleet have their PHRF increased slightly (giving them a better chance next race). The specific adjustments are as follows:
 - **Division:** Yachts finishing 1st, 2nd, and 3rd in their division have their PHRF rating reduced by 9, 6, or 3 seconds respectively. The 4th place boat's PHRF is not adjusted. All other boats who completed the race have their PHRFs increased by 2 seconds. This adjustment is made within individual divisions - comparing a Division 1 boat to a Division 2 boat isn't meaningful.
 - **Fleet (MAST Cup):** Yachts finishing 1st, 2nd, 3rd, 4th, 5th and 6th in the fleet have their PHRF rating reduced by 18, 15, 12, 9, 6 and 3 seconds respectively. The 7th, 8th, and 9th place boats' PHRFs are not adjusted. All other boats who completed the race have their PHRFs increased by 4 seconds.

Scoring Note: This is an explanation of how the current MAST handicapping system was selected, how it works, and what some of the criteria were for choosing it. We have a wide variety of yachts in MAST racing, a wide variety of racing experience and some different perspectives on what MAST racing is supposed to be.

Some folks are experienced racers, others are just starting out and learning how to race, and still others are just out to enjoy a competitive and friendly evening on the water with their family and friends. One of the race committee's jobs was to come up with a scoring system that would encompass all these differences and provide competitive racing throughout the season.

In 1996, a number of different groups were contacted via the Internet to see how they were scoring their club racing. That information and the MAST racing data from that year were entered into a spreadsheet. The idea was to look at different scoring systems to see how they would affect the results from that year. Evaluations were made of straight PHRF ratings with no change, the 9-6-3-0-2 system that we ended up choosing, as well as systems with smaller and larger modifications. Overall, there was no difference in the results until you went to very large modifications. Other folks had reported similar findings, and the reason is that most racing at the club level is not that close. The average margin of victory is 1 - 2 minutes and gets larger as the wind gets less. It takes a large rating modification to change the outcome of a race.

Having done that, we felt we could be somewhat flexible in choosing a system. The 9-6-3-0-2 system seemed to encourage coming out to race every week regardless of experience level and provide for fun competition. It starts out rating all the yachts at their PHRF rating. This was something everyone seemed to favor. Once the initial rating is established, it and the elapsed time are used in a time-on-time formula to yield the corrected time. After each race the ratings are adjusted based on how a yacht placed in the race.

Increasing the PHRFs, if you don't finish well, encourages folks to come out and race. Wherever you are in the standings, there's someone close to you with whom you're competing. Even if you don't finish high in a race, your rating improves a little if you come out and race. So, you have a little better chance with the next race. If you don't come out and race, your rating stays the same. So, it pays to come out and race.

The system also assumes that since the yacht placed well, it's either faster, or sailed better (or maybe both) than other yachts. Decreasing those PHRFs make it a little more difficult to get the same result, this reduction challenges the better skippers/yachts to continue to try to improve. If a yacht is giving time to another yacht, it's because it started with a lower rating and/or placed better than the other yacht in one or more races. Since the number of 'best' races needed to qualify for the standings is small, finishing 1, 2, or 3 in any particular race is like money in the bank.

The hope was that the PHRF rating adjustments, both up and down, would result in good competition throughout the season. In the last several years this has been the case. Most trophy positions were decided in the final race of the season.

2.10 Safety

Sailing is an activity that has an inherent risk of damage and injury. Competitors in this event are participating entirely at their own risk. See RRS 4, Decision to Race. The race organizers (organizing authority, its officers, members, race committee, protest committee, host club, sponsors, or any other organization or official) will not be responsible for damage to any boat or other property or the injury to any competitor, including death, sustained as a result of participation in this event. By participating in this event, each competitor agrees to release the race organizers from any and all liability associated with such competitor's participation in this event to the fullest extent permitted by law.

As used in the Notice of Race and the Sailing Instructions, the term "Person-in-Charge" means the person who is designated on the Entry Form as the Person-in-Charge and who is in charge of the boat, whether or not the owner.

The safety of a boat and its crew is the sole and inescapable responsibility of the Person-in-Charge, who must assure that the boat is fully sound, thoroughly seaworthy and sailed by an experienced crew who have undergone appropriate training and are physically fit to face bad weather. The Person-in-Charge must be satisfied with the soundness of the hull, spars, rigging, sails and all gear. The Person-in-Charge must assure that all safety equipment is properly maintained and stowed and that the crew knows where it is kept and how it is to be used. Neither the acceptance of a Crew List, the establishment of equipment or safety requirements nor an inspection of a boat in any way limits or reduces the complete and unlimited responsibility of the Person-in-Charge.

2.11 Discipline

The Person-In-Charge shall be responsible for the conduct of the crew before, during and after the Race. In the event of a serious misconduct, destruction of property or failure to comply with a reasonable request of the Race Committee, the Race Committee may request that a Jury act under RRS 69.1.

2.12 Prizes

An award will be given (one per yacht) for:

- Division 1: 1st, 2nd, 3rd, 4th, 5th Place
- Division 2: 1st, 2nd, 3rd, 4th, 5th Place
- Division 3: 1st, 2nd, 3rd, 4th, 5th Place

Yacht of the Year - The MAST Cup

To qualify for a trophy in the 'Almost Fall Regatta' (AFR) or other MAST races consult the Notice of Race for that specific event.

In addition to the usual awards there may be additional awards given at the discretion of Race committee for:

Rookie of the Year – Eligibility is new skippers or skippers that have not raced in MAST for 2 consecutive years. Award is based on the ranking division boat. If a current MAST skipper changes boats, they DO NOT qualify for the Rookie of the Year unless they have not sailed as a skipper in MAST for 2 consecutive years.

Spirit of MAST – This award may be presented in any given year to the MAST boat, couple or member that we feel best represented the Spirit of MAST throughout that year. This award will be presented based on their:

- Fleet participation and good sportsmanship
- An above and beyond willingness to help out with club activities, business needs, and a positive and friendly attitude

Current MAST Officers are not eligible for this award.

Cruiser/Racer Award – This award to be presented to the racing vessel that demonstrated the desire to race in MAST as well as other venues along with cruising throughout the Great Lakes representing and supporting MAST in the effort.

Guidelines for miles sailed:

Cruising Miles: Miles to and from racing events (your Friday night miles will count, and we will calculate those for you based on the races in which your boat participated).

- Racing Miles: – Friday MAST races entered, Hook, Double or Single hand races, Port Washington Labor Day Regatta, others. Queens Cup Race may / may not count, because the race starts in Milwaukee. All decisions are under review and at the discretion of MAST Officers.

Awards shall be flags for division awards, trophies for the MAST Cup and Almost Fall Regatta, and trophies or flags for other awards.

3. Sailing Instructions

3.1 Rules

Races shall be governed by The Racing Rules of Sailing, 2017-2020, and US Sailing Prescriptions, 2017-2020.

Adherence to ISAF Offshore Special Regulations, 2016-2017, of the International Sailing Federation for Category 4 Monohull Sailboats is strongly encouraged. Free copies of these regulations are available for download at <http://www.sailing.org/>.

For a plain language summary of the most important racing rules, please review “The Basic Sailboat Racing Rules All Racers Should Know” document. This document is available for free download from the MAST home page at www.mastracing.org.

3.2 Entries

Competitors may enter by submitting a completed MAST Application for Membership and Friday Night Racing and the associated fees. Application may be found at www.mastracing.org.

3.3 Notice to Competitors

Notices to Competitors will be provided via e-mail from the Race Chairperson.

3.4 Signals Made Ashore

Signals will not be made ashore. Postponement or cancellation of race shall be broadcast on VHF channel 79 at approximately 5:30 PM the day of the race. Postponements and cancellations are at the discretion of that week’s Race Committee Boat and/or Race Committee / Chairperson.

3.5 Schedule and Class Flags

The schedule of races shall be as stated in the Notice of Race.

Class flags shall be as follows:

- Division 1 – Green Flag
- Division 2 – Blue Flag
- Division 3 – Yellow Flag

3.6 Racing Area

The racing area will be on Lake Michigan outside the Milwaukee Harbor breakwater, unless otherwise stated.

3.7 Courses and Marks

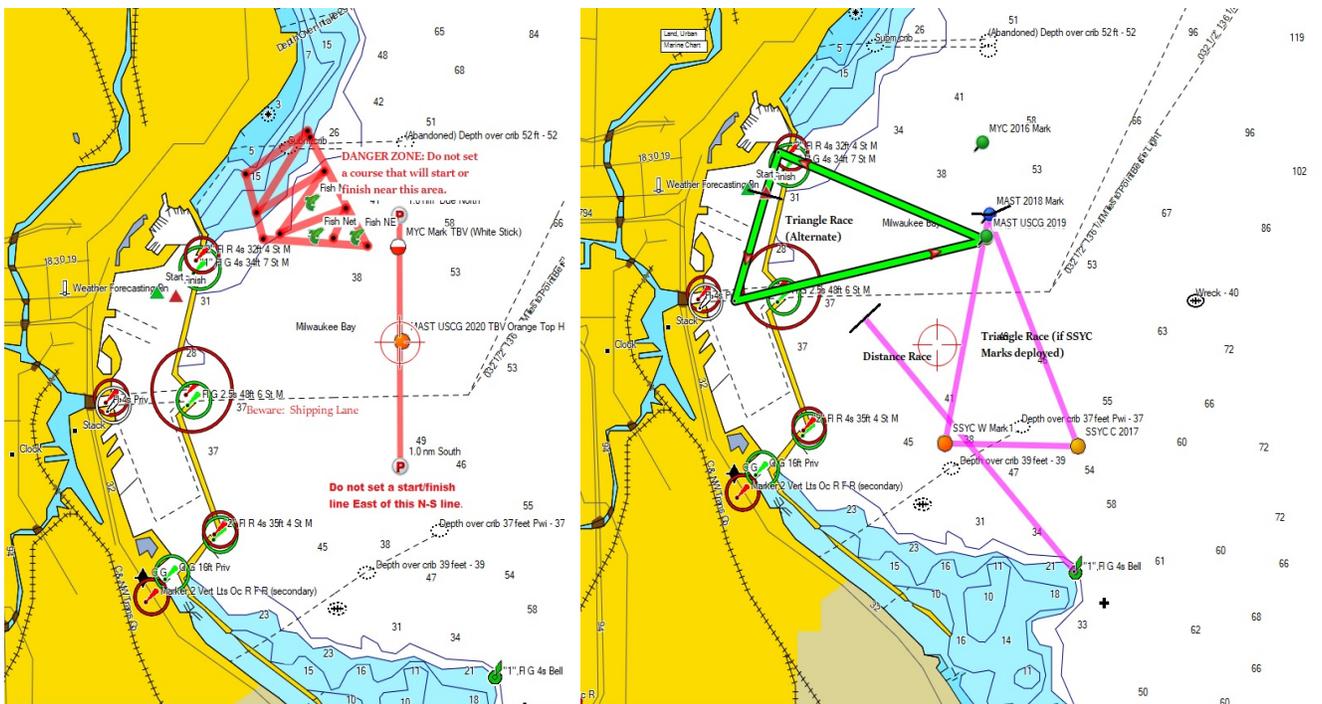
The course will be selected for each race from one of the *four* courses as described herein. Refer to Schedule of Events in the Notice of Race for determination of course. The Committee Boat has the right to modify the course if conditions require.

All courses are sailed leaving all buoys to port, as they are rounded.

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

Courses will be as shown in the following illustrations:



Windward – Leeward Course
Committee Boat Stays West of North / South Line
for Windward/Leeward Races.

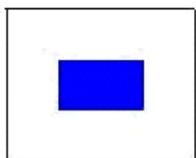
Triangle Courses and Distance Course. Triangle Races start at the MAST Mark unless Alternate Triangle Course is used. Triangle Courses are normally sailed in an anti-clockwise rotation. The direction may be reversed at the discretion of the committee boat as well as the modification of the starting mark.

The course will be a windward /leeward course unless otherwise indicated in the race schedule. The courses will run from the Committee Boat to “center” pin (MAST Mark) and back to the throw in buoy used for start, or as indicated in the accompanying charts.

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, or by hail). Yachts may set a spinnaker in three of these races as specifically noted in the schedule of races and with proper notification of the committee boat prior to their start. If a windward/ leeward race in which

spinnakers are allowed is abandoned, the Race Chairperson shall identify and notify the fleet of an alternate windward/leeward race in which spinnakers will be allowed.

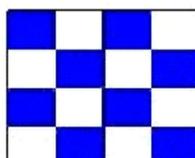
If the weather conditions are not suitable for a triangle or distance race, the committee yacht may set up a standard windward /leeward course and advise competitors on channel 79 and by hail.



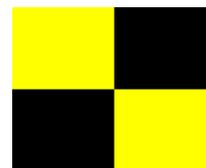
Shorten Course Flag



Race Postponed Flag



Race Abandoned Flag



Long Course /Come Within Hail Flag

If it's necessary to shorten the course, the Committee Boat will display the 'Shorten Course' (International "S") flag. If it's necessary to delay a race starting sequence past its normal time, the committee yacht should fly the 'Race Postponed' (International "AP") flag. The 'Race Postponed' flag should be lowered 1 minute before beginning the starting sequence. If it's necessary to abandon a race, the committee boat will fly the 'Race Abandoned' flag. If at all possible, the Committee Boat will try to complete the race by shortening the course rather than abandoning the race.

Under special circumstances where a course other than the standard windward/leeward course will be sailed, the Committee Boat will continuously display the 'Come Within Hail' (International "L") flag.

The permanent MAST Buoy will be located approximately 1.5 statute miles ESE of the North Gap of the Milwaukee Harbor break-wall.

The marks are throw-in buoys, a four-sided yellow inflatable buoy, or a fixed orange cylinder.

Distance Races: There will be *one* distance race consisting of one lap out to the "Bell Buoy" (Green "1" Buoy) and back to the starting line, approximate length of leg 3.0 nm. The location of the starting line will be approximately located outside the main gap, immediately south of the shipping channel. Yachts may set a spinnaker in these races with proper notification of the committee boat prior to their start. *There should be at least 7 knots of wind in order to sail the Distance Race.*

Triangle Race: There will be *five* triangle races. If the SSYC Marks are deployed, the location of the Triangle Race starting line will be located at the MAST Race Mark, unless modified by the Committee Boat. The course will be south to the SSYC W Race Mark (4' Orange Sphere with "W" and a light), then E/NE to the SSYC C Mark (Orange Cylinder with "C" and white horizontal stripe), and finally back to the start /finish mark. Spinnakers will be allowed in these races. (Note: Mark description has not been verified at the time of this printing) *The Alternate Triangle Course will be used in the absence of the SSYC Marks. The start and finish lines will be set behind the break wall just to the SW of the North harbor Gap. From the start the 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.* The committee boat holds the right to use other marks or directions should conditions warrant a course change.

3.8 Starting and Finishing Lines; Starting System

The starting line for windward/leeward races will be approximately 1 mile from the MAST Mark (unless otherwise noted), with the start buoy to port and the Committee Boat to starboard. The starting line will not be east of a theoretical line running North-to-South through the MAST Mark. In the event of westerly winds, the race will be conducted with a downwind start, from west of the MAST Mark.

The starting procedures of the Racing Rules of Sailing will be amended as follows:

The starting line will be between a staff or halyard displaying the RC flag on the race Committee Boat at the starboard end, and a mark at the port end.

The committee boat will make a good faith effort to identify Yachts that start, and record finishing times for all yachts that race. If you're in doubt, give them a time and we'll sort it out later. Where possible note the boat before and after you. The final

responsibility lies with each individual skipper to make sure that the committee boat knows you're racing. It's a good practice to go past the committee boat, prior to the first WARNING and call out your yacht name and sail number, or notify the Committee Boat on channel 79 if needed.

The Committee Boat will signal the starting sequence using a combination of visual signals (flags) accompanied by the sounding of a horn. It is recommended that the Committee Boat announces course and distance at least 1 minute prior to the rotational start and after this maintains radio silence for the duration of the start sequence.

A typical start for separate divisions would involve the following sequence of signals:

5 Min Starting Rotation

Division Flags – Yellow - Div. 3, Blue - Div. 2, Green -Div. 1.

Division 3

6:15 pm WARNING – RAISE YELLOW FLAG (Division 3 Class Flag), SOUND HORN (1second)

6:16 p.m. PREPARATORY - RAISE BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (1sec)

6:19 p.m. LOWER BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (3sec)

6:20 p.m. RACE STARTS - LOWER YELLOW FLAG (Division 3 Class flag), SOUND HORN (1second)

Division 2

6:20 p.m. WARNING - RAISE BLUE FLAG (Division 2 Class flag), SOUND HORN (1sec)

6:21 p.m. PREPARATORY - RAISE BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (1sec)

6:24 p.m. LOWER BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (3sec)

6:25 p.m. RACE STARTS - LOWER BLUE FLAG (Division 2 Class Flag), SOUND HORN (1second)

Division 1

6:25 pm WARNING – RAISE GREEN FLAG (Division 1 Class Flag), SOUND HORN (1second)

6:26 p.m. PREPARATORY - RAISE BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (1sec)

6:29 p.m. LOWER BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (3sec)

6:30 p.m. RACE STARTS - LOWER GREEN FLAG (Division 1 Class flag), SOUND HORN (1second)

NOTE: Visual starting signals (flags) always take precedence over horn signals. Technical reasons may preclude the accurate use or interpretation of a horn or other sound device.

Yachts starting early must restart staying clear of others. A yacht starting early must sail to either end of the starting line and then return to the starting area from outside of the pin or Committee Boat to start. Yachts that are over-early at the start and do not return will be penalized by having 360 seconds added to their elapsed race time. The committee boat will attempt to hail any offending yachts by horn and radio. All yachts must (should) monitor channel 79.

External propulsion is not allowed once the warning flag for a yacht's division has been raised. This is a local rule modification.

Yachts must stay clear of the start line during other divisions' starts or they may be faced with a time penalty.

In no case shall a yacht start a race under Spinnaker sail. This includes having a sail, pole, or other hardware set in a manner that would restrict a boat's ability a tack or jibe prior to the race start. In the event a yacht is in violation of these rules, that yacht shall be scored DNS.

The finishing line will be between a staff or halyard displaying the RC flag on the Committee Boat and a nearby mark, to-Port.

If you are unable to finish a race, notify the Committee Boat (channel 79).

3.9 Time Limit

If during the course of the race, the Committee Boat needs to shorten the course, it should display the 'shorten-course' flag and then motor to the appropriate mark and take the finish times. It will also announce the course shortening on channel 79.

The race finish time is 9:00 p.m. However, the committee boat may change the finish time at their discretion. They should announce the new finish time not later than 8.45pm.

For Windward / Leeward only, if no boat reaches the first mark by 7:15PM, the race may be abandoned. All other races will be at the discretion of the Committee Boat after hailing the fleet for current course conditions.

3.10 Protests

All protests will be heard and decided by majority vote of the Race Committee, which shall consist of the Race Committee Chairperson and two other MAST members who are knowledgeable about the Racing Rules of Sailing and who were not aboard the boats involved in the protested incident. If the Race Committee Chairperson was aboard one of the boats involved in the protested incident, the Commodore shall appoint a MAST member not involved in the protested incident to serve as a substitute Race Committee Chairperson, who shall choose the other members of the Race Committee and consider the protest.

The penalties shall be determined at the sole discretion of the Race Committee and can be, but are not limited to, loss of one place in the finish, disqualification from the race, and suspension for one or more races. The decision of the Race Committee is final. In the event a boat is protested and found to be in violation of the racing rules twice during the course of a season, the Race Committee may remove the boat from the fleet. If a boat files more than two protests that are found to be without merit, that boat may also be subject to penalty within the sole discretion of the Race Committee.

WHAT TO DO IF A FOUL OCCURS

IF YOU ARE FOULED

1. Avoid Contact!
2. Take a deep breath and remember we are all here to have fun.
3. If you believe you've been fouled, hail the offending boat saying "PROTEST" and the BOAT NAME (declaring loudly enough for the other boat to hear or using the VHF radio), and raise a red flag on the stern of the boat if you have one.
4. Once onshore, if you intend to pursue the protest, you must notify the Race Committee Chairperson of your protest, including a description of the incident and the racing rules you believe were violated, within two hours after the last boat finishes the race.

IF YOU FOUL ANOTHER BOAT

1. Avoid Contact!
2. Take a deep breath and remember we are all here to have fun. If there is any possibility you impeded the progress of another boat or caused a dangerous condition, in the spirit of MAST, treat the incident as a foul.
3. If you believe you fouled another boat, get clear of all other boats and do two complete circles in the same direction. Once the circles are complete, you can rejoin the race without further penalty.
4. If you do not think there was a foul, continue sailing the race with the understanding that you are racing under protest.
5. Once the race is complete, you will receive an email from the Race Chairperson if a protest has been filed by the other boat. The Race Chair will ask for an account of the event from the person in charge of your boat and other eye witnesses.

3.11 Scoring

Scoring shall be as described in the Notice of Race

3.12 Further Information

A yacht shall neither make nor receive special radio transmissions, cellular phone calls, or other wireless communications, while racing not available to all yachts. The race committee boat and racing yachts will monitor VHF channel 79.

Yachts may race as guests. Guest yachts will be limited to 3 races before they are requested to join. A guest yacht shall not be scored more than 3 races. It is recommended that guest yachts notify the Race Chairperson of their intent to race prior to the day of a race and that the guest yacht check in with the Committee Boat prior to the start of the race.

Mast relies on Volunteers and as such it is expected that everyone should assist with the committee boat duties or volunteer to host a race party.

Short-handed? Need a crew? Post on the MAST RACING Facebook page or Contact the MCSC at 414-277-9094. They'll post your request on their bulletin board. Or, if you need a crew on short notice, just stop by and ask around. You'll get good volunteers!

If any part of a yacht touches a mark, she shall sail well clear of other yachts and do a 360-degree turn, including one tack and one gibe. It is not necessary to re-round if you rounded on the proper side of the mark when you touched it.

MAST may provide, at the discretion of the Race Chairperson, on the water coaching through means of a coach or coaches on a chase boat for a maximum of (2) races during the racing season. This form of coaching shall not be allowed at any other time unless specifically allowed by the Race Chairperson.

3.13 Informal Rules Reminders

'Safety First' is THE most important rule for MAST racers. Be particularly careful at the start. Keep your crew on the lookout for other yachts at all times. When in doubt, STEER CLEAR!

If the weather during a race becomes more than you can handle, head back to port. We do not engage in survival tests.

Give room at the start and at marks. If you have an urge to charge or barge, do it at another time, not during MAST racing. For many people, this is a learning experience.

All yachts racing in MAST sponsored races, must comply with all appropriate United States Coast Guard and other applicable government regulations.

Each yacht is expected to have a boarding ladder, a cushion or ring buoy ready to throw, a whistle or horn, and an anchor with line, all ready to use. We also encourage having a life-sling and a man overboard pole.

Personal Flotation Devices (PFD's) are encouraged to be worn at the start and finish of a race. PFD's are also encouraged to be worn at all other times. The Captain of the yacht has final say in directing whether or not their crew shall wear PFD's.

Practice a man overboard drill before the first race and again several times during the season. Make sure all crewmembers know the symptoms of hypothermia.

Monitor channel 79 during the race. Call if you need assistance.

4. Committee Boat Duties

4.1 Download Race material from MAST RACING website

www.mastracing.org

4.2 Dock Box

The Club's dock box will be located at the Milwaukee Community Sailing Center yard, at the North East corner, east of the cranes. 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.

4.3 Obligations

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 on the boat, *this requirement may be waived due to social distancing requirements for competent Committee Boats. All committee boats must attend or participate in a virtual mandatory training in order to maintain their eligibility for committee boat duties.*

4.4 Cancellation, Postponement, or Abandonment

The Committee boat shall not cancel a race due to light winds until after 7:15 P.M. If you have questions about whether to cancel a race, contact the Race Committee Chairperson or other Race committee member. It is recommended not to shorten the course until the leading boat is within 100 feet of the committee boat on the second leg.

The Committee Boat may cancel or abandon a race due to uncertain weather conditions. Visibility, wind strength, and wave heights are all conditions that may render racing in unsafe conditions. Visibility restrictions would be due to fog. Anytime fog conditions exist prior to a race or occur during the race, the Committee Boat could call for a race cancelation or abandonment, especially if conditions deteriorate to less than ½ mile visibility. Wind speeds consistently over 25 knots with gusty conditions well above that could be considered unsafe. Small craft weather warnings with wave heights in excess of 6 feet could be a consideration for race cancelation or abandonment. Wave heights, along with strong winds, are perhaps the best gauge for race cancelation. It is not a question of fairness, but safety for all.

As always it is usually the combination of conditions (wind strength, water temp, and wave height) that create an unsafe situation. The point here is to have some guidelines for the Committee Boat permission to call off a race without the accompanied static that some competitors will raise.

The Committee Boat should poll the fleet on VHF Channel 79 and communicate freely if any question exists on whether to start or continue a race. If it is the concurring opinion of the Committee Boat and Race Committee Chairperson, the Committee Boat shall signal the race abandoned with the Race Abandoned Flag, repeated sounds from the signal horn, and by communication on VHF Channel 79.

4.5 Gear

Pick up the Race Committee Boat package: Yellow, blue and green starting flags; the 'RC' Flag; the Shorten Course Flag, the 'P' Flag, the Postpone Race Flag, the Abandon Race Flag, the 'L' Flag, megaphone and blank race results forms from the dock-box located at the North East corner of the Milwaukee Community Sailing Center by their North Dock next to the small building. The combination is 5-4-1-0; the times of the flags in the race sequence. Call the Race Committee Chairperson if there is difficulty with the lock. If battery power is low for the horn and/or megaphone or if there is a flaw in the race equipment, inform the Race Committee Chairperson. We recommend that you take a flashlight, as the area is not very well lit.

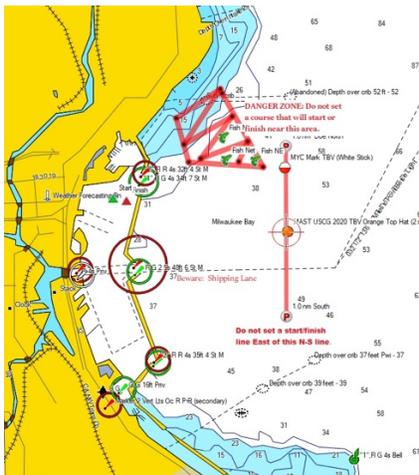
4.6 Course Set-Up

Windward / Leeward Races: The Committee Boat should position the Starting Mark approximately 1 mile from the MAST Center Mark (except where noted). The Committee Boat must 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.e. If the wind is due West, the Committee Boat should NOT motor 1 mile East of center, it should instead position itself 1 mile West

of center and we will have 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, 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.



Distance Races: 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 up the starting line perpendicular to a direct line to the Bell Buoy. If at all possible, an upwind or downwind start line should be set. The location should be approximately 2.5 to 3.0 nm from the Bell Buoy.

Triangle Races: *If the SSYC Marks are deployed, the location of the Triangle Race starting line will be located at the MAST Race Mark, unless modified by the Committee Boat. The Committee boat should set up the starting 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. The Alternate Triangle Course will be used in the absence of the SSYC Marks. 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 the 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.*

On nights scheduled for a distance or triangle race, if the weather conditions are not suitable for the scheduled race, set up a standard windward/ leeward course and advise competitors on VHF Channel 79 and by hail.

4.7 Starting/Finishing Line

The Committee Boat should always orient the Starting Line so that starting yachts will leave the Starting Mark to-port including downwind starts. Create a starting line of at least 300 feet long (approx 0.1 Nm on your GPS). Remember that it is better to have a too long line than a too short one! 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.

The Committee Boat should make an announcement at around 6:00 pm: 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 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 not in your starting sequence are to keep clear of the starting area 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. Have a great race. Mast Committee Boat standing by on Seven Nine.

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. The Committee Boat should move as soon as possible after the Division 1 start. The finish line can be shorter, and it is recommended that it is kept short especially when the finishes may be in the dark. Local Sailing Instructions modify the external propulsion rule to 5 minutes before the start.

4.8 Race Signals

Start Sequence

Division Flags - Yellow - Div. 3, Blue - Div. 2, Green - Div. 1

Typical Start Sequence	Time Interval	Visual and Aural Signal
6:15P.M.	0:00	RAISE YELLOW FLAG (Division 3 Class Flag), SOUND HORN (1second)
6:16 P.M.	1:00	RAISE BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (1sec)
6:19P.M.	4:00	LOWER BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (3sec)
6:20P.M. DIV 3 START	5:00	LOWER YELLOW FLAG (Division 3 Class Flag), SOUND HORN (1second)
6:20 P.M.	5:00	RAISE BLUE FLAG (Division 2 Class Flag), SOUND HORN (1sec)
6:21 P.M.	6:00	RAISE BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (1sec)
6:24 P.M.	9:00	LOWER BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (3sec)
6:25P.M. DIV 2 START	10:00	LOWER BLUE FLAG (Division 2 Class Flag), SOUND HORN (1second)
6:25P.M.	10:00	RAISE GREEN FLAG (Division 1 Class Flag), SOUND HORN (1second)
6:26 P.M.	11:00	RAISE BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (1sec)
6:29P.M.	14:00	LOWER BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (3sec)
6:30P.M. DIV 1 START	15:00	LOWER GREEN FLAG (Division 1 Class Flag), SOUND HORN (1second)

If it is necessary to delay the race starting sequence past its normal time, fly the 'Race Postponed' flag (see illustration in section 3.7). Lower the 'Race Postponed' flag 1 minute before beginning the starting sequence.

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 (International "S" flag, see illustration above). 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.

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.

Under special circumstances where a course other than the standard windward/leeward course will be sailed (Distance, Triangle, or other), continuously display the 'Come Within Hail' (International "L" flag, see illustration above).

4.9 Race Data

If a yacht(s) is over early, a second horn signal is sounded and the yacht is hailed using the megaphone. Since the yacht may not be within hailing range, also call the yacht on the radio and inform the skipper that they are over early. It is the skippers responsibly to react as he wishes to the foul. Note the penalty on the score sheet if the yacht chooses not to restart.

When spinnakers are allowed in specific races, a yacht wishing to use a spinnaker must advise the committee boat prior to their start. Record a mark next to each yacht that indicates they will be flying a spinnaker. A time-on-time penalty will apply in these cases.

Record actual start times of each division. 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. GPS timing devices are preferred. A Yacht finishes at the moment any part of her hull or sails, in normal sailing trim, crosses the finish line. The race ends at 9:00PM unless you notify the racers by 8:45PM of a new finish time. This is at your discretion as the committee boat. Try to identify those yachts still racing and record 'DNF' on the score sheet.

Signal each yacht's finish by using the 'horn' function of the bullhorn. If the bullhorn fails to work, the committee yacht should signal the finish of each yacht that crosses the finishing line by using a foghorn, whistle or other device. Let them know they finished and you recorded their time! Report any problems with the bullhorn to the Race Committee Chairperson.

Take a **clear** cell phone picture (with adequate light) of the downloaded race form with race finish times clearly written. 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. The sooner race times are received, the sooner they can be posted. Return equipment to the dock box with the recorded race times after the race. Recorded times may be referenced in case of discrepancy.

A Yacht that is unable to race due to Committee Boat obligations will be awarded 1-point toward season series totals. This award is a gesture of thanks to those who volunteer for this duty. This award will be made even if a race is cancelled or abandoned, so long as a good faith effort is made to conduct the race.

4.10 Anchoring

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. 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.

4.11 Operating Instructions for Yellow Inflatable Marks

The key point is to not over-inflate the mark. The mark should never be hard to the touch. There are two valves on the mark; a smaller valve for inflating using the orange 12V pump, and a larger valve for deflating. Connect the pump directly to a battery using the red and black clips. To inflate the mark you:

1. Make sure the large valve is closed.
2. Unscrew the small valve.
3. Connect the pump and turn it on.
4. Inflate (but don't over-inflate) the mark.
5. And close the small valve.

To deflate the mark after you've gotten it back in the yacht, unscrew the large valve and whoosh the air out. ***Please be sure to hang on to cap to prevent losing overboard. Report any deficiencies of equipment to the Race Chairperson.***

The MAST race committee wishes to thank the numerous volunteers who make the summer racing program a success! May we have Fair Winds, Calm Seas and ***Safe Races, ...~~~/),,,***

Race Chairperson:

Ed Bushman 414-881-9452

Race Committee Members:

Dick Kinney 262-573-5620

Eliz Greene 414-793-5020

Appendix of Changes in 2020 – Are shown in italics within the body of this document.