



MAST

Summer Racing Series - 2011

**Notice of Race (NOR)
Sailing Instructions (SI)
Committee Boat Duties**

www.mastracing.org

TABLE OF CONTENTS

1. WELCOME TO THE 2011 MAST RACING SEASON.....	3
1.1 Preface.....	3
1.2 Introduction.....	3
2. Notice of Race.....	4
2.1 Rules.....	4
2.2 Advertising.....	4
2.3 Eligibility & Entry.....	4
2.4 Boats/Measurement.....	4
2.5 Fees.....	4
2.6 Schedule of Events.....	4
2.7 Sailing Instructions.....	6
2.8 Penalties for Breaking Rules of Part 2.....	6
2.9 Scoring.....	6
2.10 Safety.....	8
2.11 Discipline.....	8
2.12 Prizes.....	8
3. Sailing Instructions.....	9
3.1 Rules.....	9
3.2 Entries.....	9
3.3 Notice to Competitors.....	9
3.4 Signals Made Ashore.....	9
3.5 Schedule and Class Flags.....	9
3.6 Racing Area.....	9
3.7 Courses and Marks.....	9
3.8 Starting and Finishing Lines; Starting System.....	12
3.9 Time Limit.....	13
3.10 Protests.....	13
3.11 Scoring.....	13
3.12 Further Information.....	13
3.13 Informal Rules Reminders.....	14
4. Committee Boat Duties.....	15
4.1 Dock Box.....	15
4.2 Obligations.....	15
4.3 Cancellation, Postponement, or Abandonment.....	15
4.4 Gear.....	15
4.5 Course Set-Up.....	15
4.6 Starting/Finishing Line.....	15
4.7 Race Signals.....	16
4.8 Race Data.....	17
4.9 Anchoring.....	17
4.10 Operating Instructions for Yellow Inflatable Marks.....	17

1. WELCOME TO THE 2011 MAST RACING SEASON

1.1 Preface

This is the twenty-fourth 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 are available from our Race Committee or can be viewed and downloaded from our website. (<http://www.mastracing.org>)

Included in this one document are:

General Mast Information

The Notice of Race

The Sailing Instructions

Committee boat Duties

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.

Our format consists of three specific race courses:

- (a) Windward /leeward with 1 nm legs
- (b) Out and back to the green bell buoy just south of Milwaukee Harbor (i.e. the "Medium Distance Race")

And

(c) Starting line to the green bell buoy to the Milwaukee Yacht Club (MYC) race mark to the finish line. The finish line is always directly adjacent to the starting line. (i.e. the "Triangle")

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.

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 Tom Heinrich, Race Committee Chairman (262-490-6649, thomorich@gmail.com) or one of the race committee members prior to the race day.

Good Luck in 2011
MAST Race Committee

2. Notice of Race

2.1 Rules

Races shall be governed by The Racing Rules of Sailing, 2009-2012, and US Sailing Prescriptions, 2009-2012.

Adherence to ISAF Offshore Special Regulations, 2010-2011, 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/>.

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/>.

2.4 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 Chairman based on boats of similarity.

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

The race fee for boats whom have raced with MAST in the previous season is \$40 per boat before March 15 and \$50 per boat after March 15. The race fee for boats whom have not raced with MAST in the previous season is \$40 per boat.

The Skippers of all racing boats shall also be a member of MAST. The fee for MAST membership is \$25. While not required, crew of racing boats are encouraged to become members of MAST.

2.6 Schedule of Events

Races shall be held on Friday evenings starting on Friday, May 27, 2011. The last race will be Friday, September 9, 2011 unless a make-up race is necessary. If a make-up race is necessary it will be held Friday, September 16, 2011. The warning signal for the first division start shall be 6:15PM. The MAST Fall Regatta will be held Saturday, September 17, 2011.

2011 Friday Night Race Schedule and Committee Boat Assignments

Race #	Race Date	Committee Boat	Course	Special Notes
1	5/27/11	WILD GOOSE	Windward/Leeward	
2	6/3/11	TRI N' CATCH ME	Windward/Leeward	
3	6/10/11	TUMULTUOUS UPROAR	Triangle Distance	Spinnaker Allowed
4	6/17/11	WIKI WIKI	Windward/Leeward	Pizza Party (Hullabaloo/Wild Goose/Eclipse)
5	6/24/11	TAKEELA	Medium Distance	Spinnaker Allowed
6	7/1/11	BANDITO	Windward/Leeward	
7	7/8/11	TALARIA	Triangle Distance	Spinnaker Allowed
8	7/15/11	COOL CHANGE 4	Windward/Leeward	Pizza Party (Nature's Touch/Graymatter)
9	7/22/11	CORVUS	Medium Distance	Spinnaker Allowed
10	7/29/11	BLUE PEARL	Windward/Leeward	
11	8/5/11	NATURE'S TOUCH	Windward/Leeward	Spinnaker Allowed
12	8/12/11	IRIE	Windward/Leeward	
13	8/19/11	VALHALLA IV	Windward/Leeward	Pizza Party (Catalina 27 Club)
14	8/26/11	JAMBOREE	Windward/Leeward	Spinnaker Allowed
15	9/2/11	SUNTREADER	Windward/Leeward	
16	9/9/11	TYPHOON MARY	Windward/Leeward	
17	9/16/11	AQUILA	Windward/Leeward	
	9/17/11	TIBATEAU	TBD	

2.7 Sailing Instructions

The sailing instructions are attached to this manual. First warning is at 6:15 PM Central Daylight Time.

2.8 Penalties for Breaking Rules of Part 2

The penalties for breaking rules of Part 2 shall be determined at the sole discretion of the Race Committee Chairman.

2.9 Scoring

The fleet will be scored in four separate divisions, 1, 2, 3, and 4. The groupings for the divisions are dependent upon a yacht's adjusted PHRF rating and are determined by the Race Chairman. 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 Chairman if you are unsure of your division or need a handicap assignment. Yachts without a valid PHRF handicap will be assigned a handicap based on sister ships registered with the LMPHRF database, or similar source. If no similar handicapping data is available, a handicap will be assigned on the basis of the best judgment of the Race Handicapper. Note: Score sheets display only to seconds but in the event of a tie the calculation is more accurate.

For purposes of clarification, MAST uses 'Spinnaker' handicaps. Available data bases do not provide sufficient information to fairly handicap all yachts in our fleet, with 'non-spinnaker' handicaps.

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. We wanted to encourage the folks who race 'for fun' as well as those new to racing to come out every week and race. At the same time we wanted to present a sufficient challenge to those who were experienced racers to do their best. Since everyone who races enjoys the competition, it was also important for the program as a whole, that there be good competition throughout the season.

The 9-6-3-0-2 system seemed to address all these points. 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. The adjustments are as follows:

Every time a yacht races and doesn't finish in the top 4 in its division, the system increases the yacht's rating by 2. This is done to encourage 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.

Every time a yacht finishes 1, 2, or 3, its rating is reduced by 9, 6, or 3 respectively. The system assumes that since the yacht placed well, it's either faster, or sailed better (or maybe both) than other yachts. Since it's now going to be a little more difficult to get the same result, this reduction challenges the better skippers/yachts to continue to try to improve. A fourth place finish results in no change.

Week to week, the competition and adjustments are only within each division. After the adjustment process has started, comparing a Division 1 boat to a Division 2 boat isn't meaningful. Since the yachts don't compete head to head it is comparing apples and oranges. The only meaningful comparison of ratings is within a division. 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. The number of races needed to qualify for the standings is based on 1/2 the races, rounded down, + 2. For 14 races that would be 9; 13, 8; 12, 8, etc. There are a lot of throw outs if you do all the races, and this again is an incentive to come out and race. 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 rating adjustments, both up and down, would result in good competition throughout the season. In the last few years this has been the case. Most trophy positions were decided in the final race of the season.

Yacht-of-the-year (MAST Cup) is scored separately on the lowest point total for the year across divisions. Scoring for the MAST Cup is as follows.

The scoring system used to calculate the MAST Cup will be separate from the scoring for divisions, meaning a yacht will have one handicap used and adjusted to how she finished in her division plus a different handicap used and adjusted for how she finished in the fleet.

The handicap adjustment factor will reduce the handicap for the first six finishers in each race. First place finisher will have their handicap reduced by 18 points, second by 15, third by 12, fourth by 9, fifth by 6 and sixth by 3. All other boats will not have their fleet handicap adjusted.

The handicap correction factor formula would be similar to the US SAILING Time on Time formula.

$$\text{Correction Factor} = A/(B + \text{PHRF})$$

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:

$$\text{Correction Factor} = 720 / (550 + \text{PHRF})$$

Scoring is similar to Division scoring, .75 for First, 2 for second, 3 for third and so on. The committee boat will be given a score of 1. Should the race be canceled or abandoned, all boats including the committee boat will receive either a DNF or DNC.

Similar to division scoring, a boat who does not finish (DNF) for any reason will receive a score of one more point than the number of boats competing in that evening in the race. A boat who does not compete (DNC) will receive a score equal to the number of boats in the fleet.

Canceled/abandoned races do not count towards the MAST Cup scoring. In addition to canceled/abandoned races, there shall be two throw out races which will not count towards the MAST Cup scoring.

The following additional items apply to Scoring.

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.

Points will be awarded for FRIDAY NIGHT SERIES and AFR races using a low point scoring system, as follows: 1st place = 0.75 pt., 2nd place = 2 pt., 3rd place = 3 pt., etc.

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 receive 1pt. toward series trophies for that race.

A yacht unable to finish a race (light air, mechanical problems, seasickness, etc.) will be awarded one pt. more than the number of yachts that started in its division, and scored 'DNF'.

A yacht that registers after the FRIDAY NIGHT SERIES has begun will receive points equal to the total number of boats registered in its division plus 2, for those races that were missed.

A yacht that appears at the starting line, checks in with the race committee, and then fails to start for any reason will be scored as a 'DNF.'

In the event of a tie both boats will be awarded the position.

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.

To qualify for a trophy in the FRIDAY NIGHT SERIES, the low point total of the best 10 races, of a possible 16, will determine the final score. If 16 races are not sailed, the number of races needed will be 1/2 the races sailed, rounded down, + 2 (i.e. 13 races => 8, 12 races => 8, 11 races => 7, etc.) The above also constitutes the minimum number of races a yacht must sail to qualify for the standings.

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

Division 4 - 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 boats or boats that have not raced in MAST for 2 consecutive years. Award based on the same rules as the division awards.

Most entertaining committee boat

3. Sailing Instructions

3.1 Rules

Races shall be governed by The Racing Rules of Sailing, 2009-2012, and US Sailing Prescriptions, 2009-2012.

Adherence to ISAF Offshore Special Regulations, 2010-2011, 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/>.

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 Chairman.

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 5:30PM the day of the race.

3.5 Schedule and Class Flags

The first race will be Friday, May 27, 2011. The last race will be Friday, September 9, 2011 unless a make-up race is necessary. If a make-up race is necessary it will be held Friday, September 16, 2011. The MAST Fall Regatta will be held Saturday, September 17, 2011. The first warning signal for Friday night races shall be 6:15PM.

Class flags shall be as follows:

- Division 1 – Green Flag
- Division 2 – Blue Flag
- Division 3 – Red Flag
- Division 4 – White Flag

3.6 Racing Area

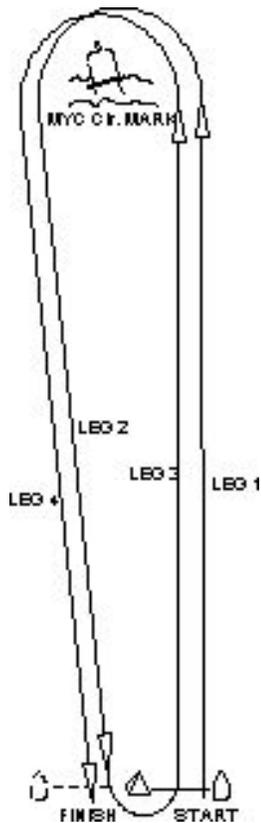
The racing area will be on Lake Michigan outside the Milwaukee Harbor breakwater.

3.7 Courses and Marks

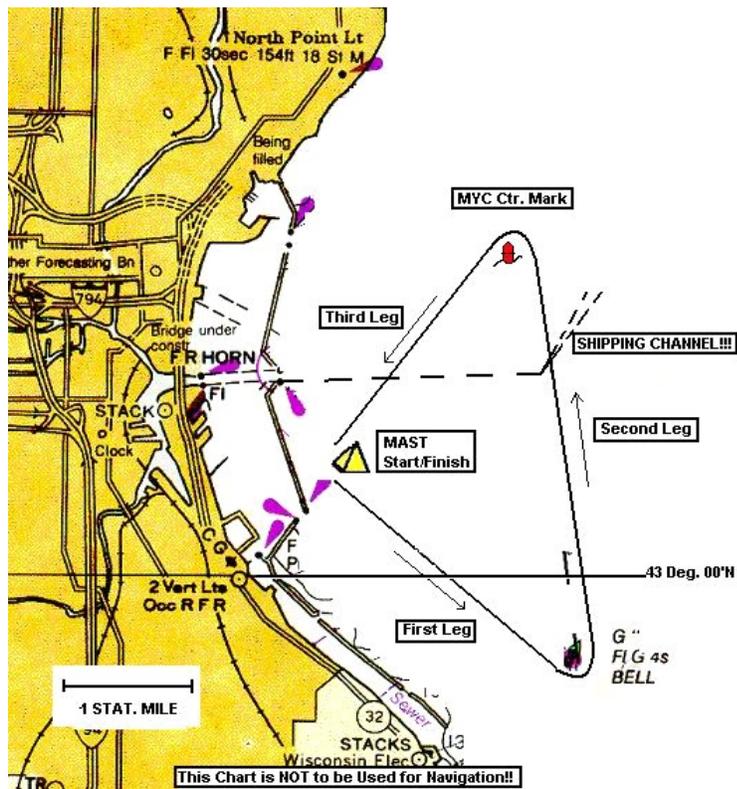
The course will be selected for each race from one of the three courses as described herein. Refer to Schedule of Events in the Notice of Race for determination of course. Committee boat has the right to modify the course if conditions require.

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

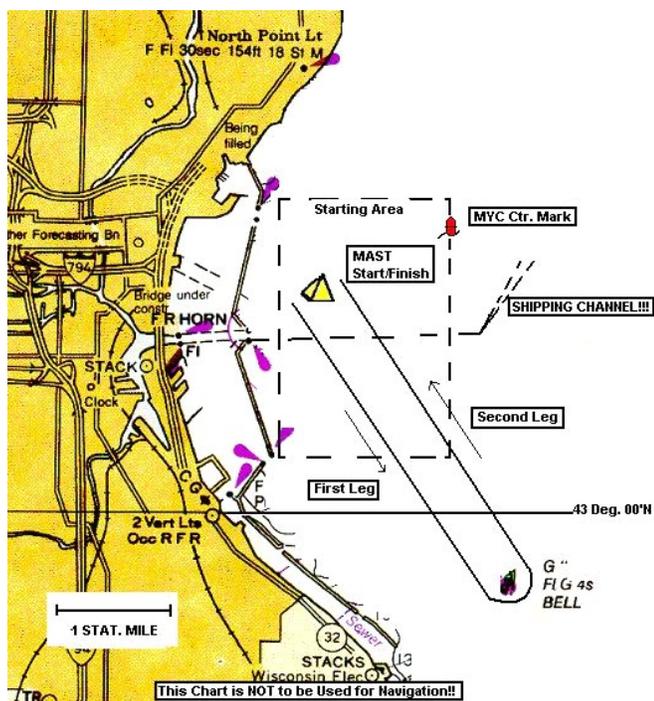
Courses will be as shown in the following illustrations:



Windward – Leeward Course



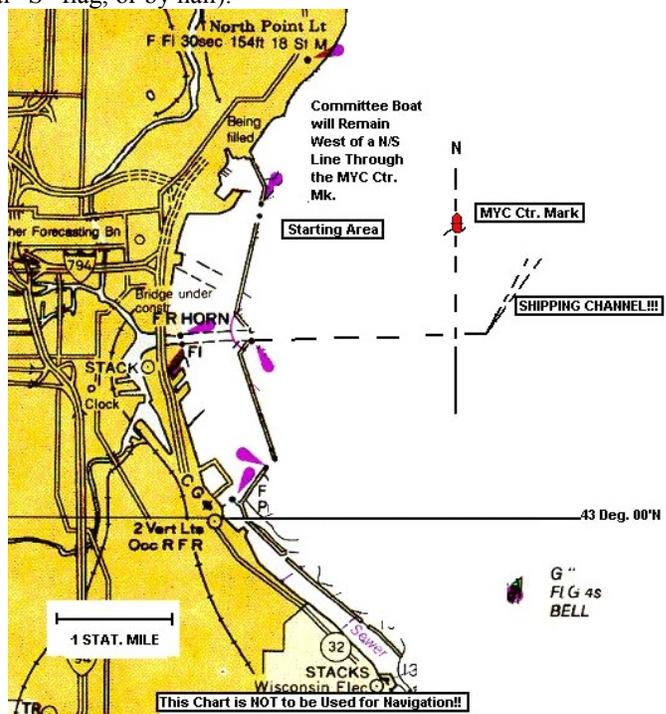
Moonlight Triangle Course . Normally sailed in an anti-clockwise rotation. The direction may be reversed at the discretion of the committee boat.



Medium Distance Course

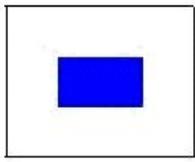
The course will be a windward /leeward course unless otherwise indicated in the race schedule. The courses will run from the Committee Boat to “center” pin (MYC Ctr. Buoy) and back to the throw in buoy used for start, or as indicated in the accompanying charts.

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).

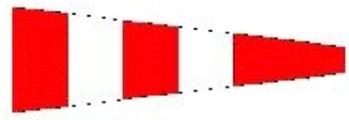


Committee Boat Stays West of North /South Line

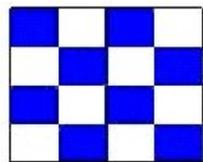
If the weather conditions are not suitable for a triangle or medium distance race, the committee yacht may set up a standard windward /leeward course and advise competitors on channel 79 and by hail.



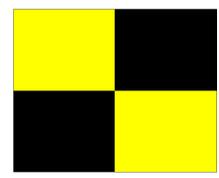
Shorten Course Flag



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 MYC Center Mark will be located approximately 1.5 statute miles ESE of the North Gap of the Milwaukee Harbor breakwall.

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

Medium Distance Races: There will be two medium distance races consisting of one lap out to the "Bell Buoy" (Green "1" Buoy) and back to the starting line. The location of the starting line will be approximately located outside the main gap,

immediately south of the shipping channel. Medium distance races will be signaled by the committee boat by continuously displaying a code 'L' flag. Yachts may set a spinnaker in these races with proper notification of the committee boat prior to their start.

Triangle Race: There will be two triangle distance races. The starting line will be approximately ½ Stat. Mi. NE of the south breakwall gap of Milwaukee Harbor. The course will be to the Green "1" Buoy (The Bell Buoy) E of South Shore Yacht Club, then North to the Milwaukee Yacht Club Center-Mark (our regular windward mark), and finally back to the start /finish mark. NEW: Yachts may set a spinnaker in this race with proper notification of the committee boat prior to their start.

3.8 Starting and Finishing Lines; Starting System

The starting line will be approximately 1 mile from the center pin (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 MYC Center Mark. In the event of westerly winds, the race will be conducted with a downwind start, from west of the MYC Center 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, or notify the Committee Boat on channel 79.

The Committee Boat will signal the starting sequence using a combination of visual signals (flags) accompanied by the sounding of a horn. A typical start for separate divisions would involve the following sequence of signals:

It is recommended that the Committee Boat announces course and distance 1 minute prior to the rotation start and after this maintains radio silence for the duration of the start sequence.

5Min Start Rotation

Division Flags - White Div. 4, Red Div. 3, Blue Div. 2, Green Div. 1.

Division 4

6:15 p.m. WARNING - RAISE WHITE FLAG (Division 4 Class flag), SOUND HORN (1sec)

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 WHITE FLAG, SOUND HORN (1second)

Division 3

6:20 pm WARNING – RAISE RED FLAG (Division 3 Class Flag), SOUND HORN (1second)

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 RED FLAG (Division 3 Class flag), SOUND HORN (1second)

Division 2

6:25 p.m. WARNING - RAISE BLUE FLAG (Division 2 Class flag), SOUND HORN (1sec)

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 BLUE FLAG (Division 2 Class Flag), SOUND HORN (1second)

Division 1

6:30 pm WARNING – RAISE GREEN FLAG (Division 1 Class Flag), SOUND HORN (1second)

6:31 p.m. PREPARATORY - RAISE BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (1sec)

6:34 p.m. LOWER BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (3sec)

6:35 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 /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 (5 Mins) this is a local rule modification.

Yachts must stay clear of the start line during other divisions' starts.

In no case shall a yacht start a race under Spinnaker sail. In the event a yacht starts a race under spinnaker sail, 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.

3.10 Protests

MAST does not use a jury process. All protests will be heard and adjudicated by the race chairman.

In the event a yacht is protested and found to be in violation of the racing rules three times during the course of a season, said yacht may be requested to leave the fleet at the sole discretion of the Race Committee Chairman.

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 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.

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.

Shorthanded? Need a crew? 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! Contact our crew bulletin board on the MAST web page if you need crew or are free to crew for someone else. (<http://www.mastracing.org>)

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.

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 Dock Box

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

4.2 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 Chairman if you cannot serve as Committee Boat on your scheduled night. A committee boat requires a minimum of 3 people on the boat.

4.3 Cancellation, Postponement, or Abandonment

The Committee boat shall not cancel a race due to light winds until after 7:00 P.M. If you have questions about whether to cancel a race, contact the Race Committee Chairman. 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 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 Chairman, 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.

4.4 Gear

Pick up the Race Committee package: red, white, 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. The combination is 5-4-1-0 ; the times of the flags in the race sequence. Call the Race Committee Chairman 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 Chairman. We recommend that you take a flashlight, as the area is very not well lit.

4.5 Course Set-Up

The Committee Boat should position the Starting Mark approximately 1 mile from the 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.

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

4.6 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 about 225-275 feet long (approx 0.1Nm 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.

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.

4.7 Race Signals

Start Sequence

Division Flags - White - Div. 4, Red - Div. 3, Blue - Div. 2, Green - Div. 1

Typical Start Sequence	Time Interval	Visual and Aural Signal
6:15 P.M.	0:00	RAISE WHITE FLAG (Division 4 Class Flag), SOUND HORN (1sec)
6:16 P.M.	1:00	RAISE BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (1sec)
6:19 P.M.	4:00	LOWER BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (3sec)
6:20P.M. DIV 4 START	5:00	LOWER WHITE FLAG (Division 4 Class Flag), SOUND HORN (1second)
6:20P.M.	5:00	RAISE RED FLAG (Division 3 Class Flag), SOUND HORN (1second)
6:21 P.M.	6:00	RAISE BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (1sec)
6:24P.M.	9:00	LOWER BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (3sec)
6:25P.M. DIV 3 START	10:00	LOWER RED FLAG (Division 3 Class Flag), SOUND HORN (1second)
6:25 P.M.	10:00	RAISE BLUE FLAG (Division 2 Class Flag), SOUND HORN (1sec)
6:26 P.M.	11:00	RAISE BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (1sec)
6:29 P.M.	14:00	LOWER BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (3sec)
6:30P.M. DIV 2 START	15:00	LOWER BLUE FLAG (Division 2 Class Flag), SOUND HORN (1second)
6:30P.M.	15:00	RAISE GREEN FLAG (Division 1 Class Flag), SOUND HORN (1second)
6:31 P.M.	16:00	RAISE BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (1sec)
6:34P.M.	19:00	LOWER BLUE FLAG WITH WHITE SQUARE (P Flag) SOUND HORN (3sec)
6:35P.M. DIV 1 START	20:00	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 medium distance or Moonlight Triangle 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 (Medium Distance, Triangle Distance, other), continuously display the 'Come Within Hail' (International "L" flag, see illustration above).

4.8 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 finishing time of each yacht, such as 7:37:21 p.m. (21 being seconds), as well as the start time for each division (use the same watch to establish these times). 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 Chairman.

Return equipment to the dock box WITH RACE DATA after the race. Leave a copy of the race data IN THE DOCKBOX. The sooner race times are received, the sooner they will be posted.

A Yacht that is unable to race due to Committee Boat obligations will be awarded 1point 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.

4.9 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.

4.10 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:

Make sure the large valve is closed.

Unscrew the small valve.

Connect the pump and turn it on.

Inflate (but don not over-inflate) the mark.

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.

The MAST race committee wishes to thank the numerous volunteers who make the summer racing program a success!