WASZP International Class Association

Race Management Guide

CONTENTS

Introduction 3
Quick Guide 4
Course options 6
Schedule of races 10
Waiting time 10
Fleet size 10
Sail sizes 11
Wind limits 11
Foiling vs lowriding 11
Launching 12
W/L racing 14
Grand prix finish 15
Sprint racing 20
Progressive sprint tournament example 22
Knockout sprint tournament example 25
NASCAR racing 28
Distance racing 29
Gate start 29
Safety management 32

INTRODUCTION

The WASZP is the most popular one-design foiling boat in the world. The fleet is truly global and consists of a wide spread of sailors in terms of demographic and ability. WASZP events are separated into four tiers: the only Tier 1 event is the WASZP Games; Tier 2 includes continental championships; Tier 3 includes low-level internationals and important domestic events such as EuroCups and National Championships; and all other events are Tier 4.

The WASZP is sailed by a wide range of sailor. Young and old; big and small; Olympians and club sailors. The inclusivity of the class is one of its biggest strengths, so it is important to ensure every WASZP event appeals to all sailors regardless of their position on the scoreboard. WASZP events should always deliver **high-quality racing**, **inclusive socials** and **learning opportunities**.

This document focusses on the delivery of high-quality racing and is aimed at anyone looking to run WASZP racing at any level. It is in the form of a comprehensive guide but is also useful as a reference source for things such as course lengths, gate distances, wind limits, approach to low riding, etc. If you have any comments on the document (including aspects that should be added to it) please contact class@waszp.com.

World Sailing Policy

Unless otherwise stated in this document, race officers should consider the World Sailing policy on fleet race management found here under "Race Management Policy Documents".

Communication with Sailors

Officials should always be transparent with their decision making and be flexible to the needs of the class. Clear, open dialogue with sailors and coaches is crucial.

Daily briefings are a helpful way of setting out the expectations for the day and other methods of communication, such as a WhatsApp group, are useful to keep the race team connected with the competitors.

The staff at WASZP are always on hand to offer support and advice to Race Officers and officials. Contact class@waszp.com any time.

QUICK GUIDE

Racing Formats:

- W/L: Windward/leeward courses (used for most racing from championships to club racing).
- Sprint: a variety of short course options to suit ability
- NASCAR (a stretched box course for optimal reaching and minimal manoeuvres).
- Distance: a course with no fixed parameters that takes into account local features. May use an upwind, reaching or, for large fleets, gate start. Can be used as a transportation option to control competitors when the race course is far from the land base.
- Green Fleet: a flexible coached fleet aimed at less able sailors that operates outside of the main racecourse.

Typical Event

Variety is welcomed. Organisers should consider integrating multiple formats into an event and Associations should consider a mix of formats across a season.

A typical 5-day championship will include W/L racing, Sprint racing and a distance race (plus a Green Fleet). A 3-day event may include two days of W/L racing and a day of Sprint and/or long-distance racing. NASCAR may be incorporated into tier 4 events.

Number of race days	Number of formats
1-2	1-2
3	2-3
4+	3

Course lengths

Course lengths vary depending on fleet size and wind/sea conditions. The information below provides a good starting point – adjust as necessary as the race timing unfolds. *Note: the v2 rudder has increased VMG and we are learning the effect on course length – ensure you have the latest guide for up to date estimates.*

W/L Racing the length is given as a total to allow two or three lap options.			
Wind conditions	Total course length (NM) – sum of all legs	Start length (Minimum of 100m; up to a max of around 500m)	Gate width (m)
6-8 knots	0.8 - 1.2	n x 5m	30-50
8-10 knots	1.6 - 2	n x 6m	60-80
10-12 knots	2 – 2.4	n x 6m	80
12-15 knots	2.4 – 2.8	n x 6m	80
15-18 knots	2.8 – 3.2	n x 7m	100
18+ knots	2.8 – 3.2	n x 7m	100+

Sprint Racing		
Wind conditions	Total course length (NM) - sum of all legs	Start length
9-12 knots	0.6	n x 4m
12-15 knots	0.7	n x 4m
15+ knots	0.8	n x 5m

NASCAR Racing		
Wind conditions	Total lap length (NM) – sum of all legs	Start length
7-9 knots	0.4	n x 4m
9-15 knots	0.6	n x 4m
15+ knots	0.8	n x 5m

Long Distance Racing
Start (which could be a conventional start or an upwind or reaching gate start). After that, there are no rules. Make the first leg long enough to avoid congestion at the first mark/gate and send them where you like. Consider a Grand Prix style finish where all boats pass through a "checkpoint" and thereafter have the option to sail a shorter course directly to the finish. More able sailors will complete the long option, less able sailors will complete the short option and the boats are scored based on their positions, with those that did the longer course ahead of those that did the shorter course. Or If the race is an A to B race, consider adding an additional small 'lap' at the finish for faster boats to sail. When the first boat crosses the finishing line after the small lap, the finish flag goes up and slower boats finish at the line without doing the extra lap.

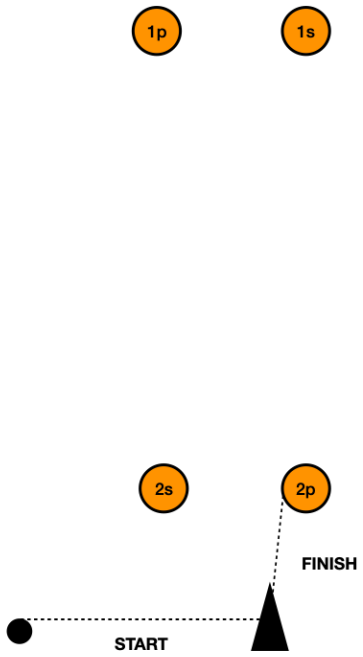
Green Fleet
Up to the coach! The coach fills the RO role. It depends on marks and RIBs available.

Target Times and Finishing Windows

Format	Target Time (mins)	Finishing Window (mins)
W/L racing	20	10
Sprint racing	3-5	2 (variable depending on format)
NASCAR	10	5
Long Distance	40	30 (can be extended if end of day)

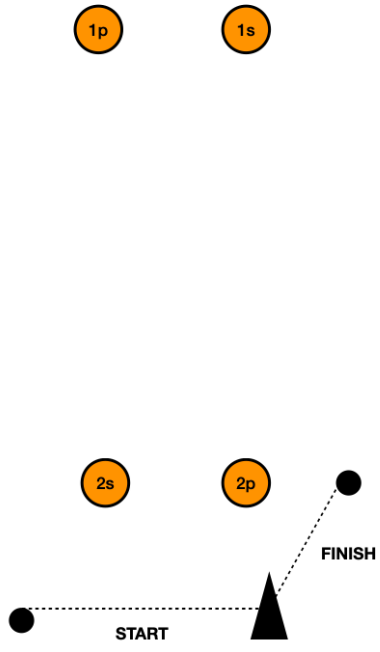
COURSE OPTIONS

W/L Racing



Key Points:

- Two gates to reduce congestion and open tactical options.
- Pin end changed for pin boat for more than ~40 boats.
- Committee boat positioned between the gate marks. This means the course geometry isn't perfect but that is outweighed by:
  - the ability for the committee boat to be the primary lap counter
  - the favourable angle created on the finishing line for boats gybing at 2p to finish
- For lower-level events with limited resources, one or both gates could be substituted for a single mark. *Note: lap counting is considerably easier with a single port leeward mark.*



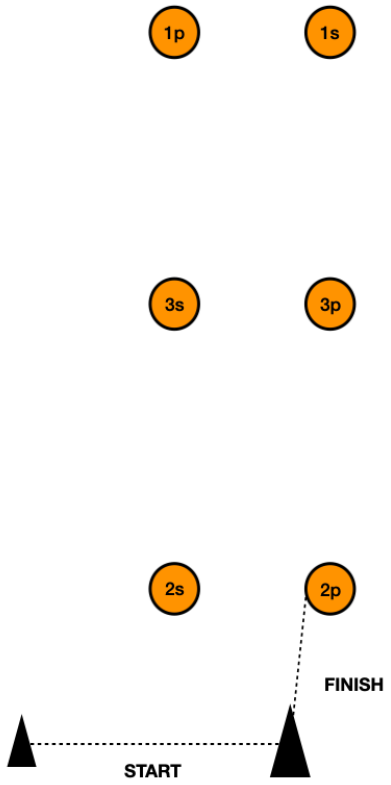
Reach to the finish; a common alternative

Positives:

- Improves course geometry.
- Makes recording numbers across the finishing line easier due to a more orderly procession.

Negatives:

- Requires more resource and trusted people because, to have view of both leeward gate marks, the primary lap counter must be a boat other than the committee boat. The lap counter boat could be a mark layer or pin boat. *Note: effective recording from a RIB in bad weather can be a challenge.*
- Lap counting needs to account for competitors on the final reach when the Finish Window closes. The shorter the final reach, the less of an issue this is.



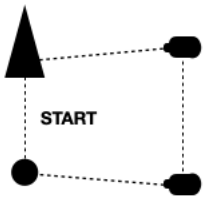
<u>Big fleet option</u>

- One long lap, one short lap.
- In large fleets, a three-gate course may be used to ensure sufficient spread at the first windward gate without compromising the target time.
- With this option, a long starting line causes less skew on the course geometry.

Sprint Racing

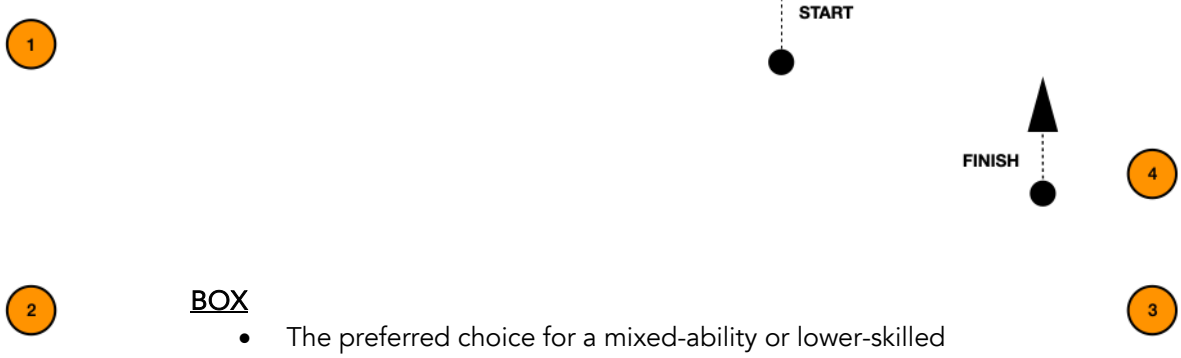
Course choice for Sprint racing depends on:

- The quality of the fleet: minimising manoeuvres will offer a better experience for less able sailors
- Size of fleet: if operating in flights, the start and finish line will need to be separate



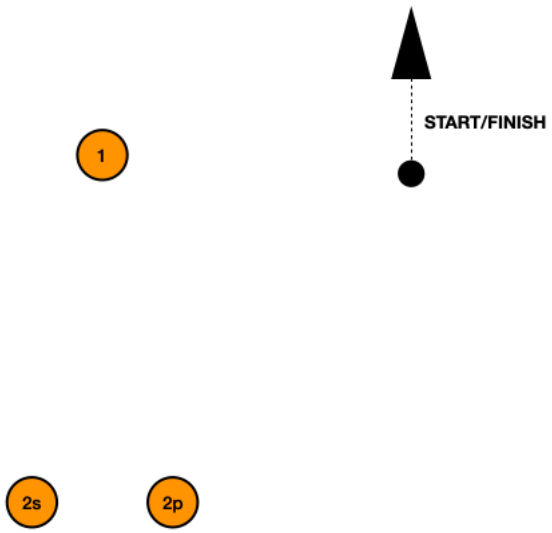
SLALOM

- Relies on the ability of sailors to foil gybe consistently and sail upwind effectively for the next start.
- Exclusion zone: recommended in large fleets of multiple flights. This can be formed by RIBs or marks and should extend around 300m behind the starting line.
- Finish: separate finishing line as pictured is preferred. The finishing line may be positioned between mark 4 and the finish boat (with the finish boat on the opposite side of mark 4) but this encourages sailors into high-risk manoeuvres at mark 4 so should only be used if resources are limited.



BOX

- The preferred choice for a mixed-ability or lower-skilled fleet. Limited tactical options for skilled sailors.
- Advantage of finishing near the start for a quick turn around. *Note: the finishing line must be outside the starting area when multiple flights are racing.*



COMPACT

- A great choice for a mixed ability fleet with a single start.
- Offers some tactical options for skilled sailors and ensures sailors finish at the start for a fast turn around.

NASCAR Racing

Key Points:

- The leg length from 1 to 2 and 3 to 4 can be lengthened to allow more upwind/downwind racing. For the fastest-pace NASCAR course, make these legs short as short as 100m.
- The leg length from 4 to the line can be very short – simply enough to have the boats oriented at 90° to the line. This allows the longest first reach in the available space.
- Set the pin clear above the rhumb line of mark 2 to 3 to avoid boats crossing the line in both directions.

GENERAL PRINCIPLES

For race management teams without foiling experience – don't worry! Organising WASZP racing isn't daunting, and the class is full of approachable people who can offer advice. Never be afraid to lean on the class representative or sailors for advice. We're all aiming for a great experience on the water.

Schedule of Races

Consider scheduling a variety of format options depending on the length of the event (see earlier guidance). Allow the option in the race documents to race any format on any day for maximum flexibility.

The following scheduling guidelines are not fixed and may be amended to suit the event.

In a mixed format event or championship, W/L racing typically accounts for at least 50% of races in the series. However, there is nothing preventing a higher proportion of alternative formats if the class and sailors have the appetite.

A single format per day is a safe choice. Multiple formats in a single day are possible, but only if the waiting time between formats is short. Running a distance race using the same starting line as the previous race format is a simple way to run two formats in a day.

- W/L racing: schedule 4 races per day with a maximum of 5 on any one day. Each W/L race typically fits into a time slot of 45mins from orange flag to orange flag (assuming the target time is met and there are no recalls).
- Sprint racing: for a single fleet, 6-8 races can be scheduled, however, race management and competitors need to be aware that there are many variables so flexibility will be important. See the Sprint racing section for further details (including operating with more than a single fleet).
- NASCAR racing: 6-8 per day.
- Distance racing: schedule 1 race per day. Given the spread of the fleet and long finishing window, the distance race should be the final race of the day. Clear briefing of race management and competitors is crucial.

Waiting Time

Waiting in a WASZP is not comfortable and is not considered rest! Reduce the waiting time between races as much as possible. Plan the formats, schedule and processes on the signal vessel to minimise delays to the sailor.

Visibility; Signals and marks

Visibility from a WASZP can be restricted and some sailors don't get close to the start line / committee boat until approaching to start (at speed). Do everything possible to increase clarity, for example:

- Use flags to indicate the course where possible (rather than a board in the cockpit or over the transom)
- Use very large flags
- Eliminate all unnecessary flags such as "RC" / sailing association / club burgee
- Consider mark colour / shape choices when defining the course; particularly making the pin mark and leeward gate marks clearly distinguishable from one another.

Fleet Size

W/L racing: the maximum number of boats on a start is approximately 90 (providing the venue can accommodate a start line and course length big enough). A fleet of more than 90 boats should be split.

Sprint racing: typically run in flights of 10-20 boats. Larger flights offer a more efficient system. Sprint racing is possible with bigger fleets but the first reach must be lengthened accordingly to allow sufficient spread by mark 1.

NASCAR racing: fleets are typically less than 40 and may be smaller for a competitive fleet.

Distance racing: by using a gate start, the only limit to fleet size is the length of the first leg (to ensure sufficient spread of the fleet by Mark 1). With 180 boats and a gate start, a 2NM upwind has proven to be more than long enough.

Sail Sizes

At smaller events, maximising the number of boats on the starting line is important, so start all rigs together.

At major events, aim to start each rig division separately. It is only feasible to run two starts on a single windward-leeward course at one time, so where limited to a single course area and narrow wind window, it may be prudent to keep the rigs combined wholly, or to start one out of three rigs separately and combine the other two.

The point at which to split the fleets and offer separate starts and results can only be made on a case-by-case basis. Lean on the class representative to make this call, or if in doubt, keep everybody together.

Results; Sail size and other categories

The WASZP class rules allow for several age groups.

Prizes are typically awarded for the top men, top women, the winners of rig divisions and winners of each age group. Gender parity on prizes is important – the days of "first lady" are over. Where possible, have equal prizes for men and women. Even if the top three overall are men, award the top 3 men and top 3 women. At smaller events, the divisions may be simplified.

Ideally your results system will be able to display three factors for each competitor: sail size, age division and sex. The class representative can provide you with the entry data (from RaceHub).

Wind Limits

Also see Foiling vs Low Riding below.

Aim to conduct racing in foiling conditions (a minimum of 8 knots of wind).

For domestic events where it is doubtful that enough races will be sailed to constitute an event without low riding, a lower wind limit of 6 knots (with reasonable consistency across the course) can be considered. Racing in 6 knots would not be foiling racing and should be considered as a last resort.

Upper wind limit: for a skilled fleet; an average wind speed of 25 knots with perfectly flat-water minus 1 knot for every 0.25m of sea state (so with 1m waves, an average of 21 knots would probably be the top end for most sailors). As well as sea state, sailor ability has a significant impact on the upper wind limit. Loosely follow the formula for the upper wind limit while additionally factoring in the skill of the sailors.

Also see the safety management section of this document.

Competitor Identification

The WASZP comes in four standard colours with different choices for colour of tramps and sails. This creates an opportunity to supplement the use of sail numbers for identifying competitors with a colour reference. Although a given hull / tramp / sail colour combination may not be unique within a fleet, this information can be very useful when boats are capsized but can also be used when recording close finishes or mark roundings.

The class representative can provide you with this data from RaceHub.

Foiling vs Lowriding

People sail the WASZP because they want to go foiling, so aim to run racing in foiling conditions. Adjust the schedule to ensure racing takes place in the best foiling conditions. Consider adjusting the number of races per day to favour more races on days with a better forecast... and be prepared to be flexible with what unfolds.

The inability for some boats to foil does not automatically make a race unfair. Heavier sailors may suffer a disadvantage in marginal conditions but have the advantage in windy conditions; and the reverse for lighter sailors.

The WASZP fleet has a wide range of weights (and experience). Some of the lightest and most experienced sailors will foil in 7 knots whereas some of the heavier or less experienced sailors might need 9 knots.

When running W/L races in marginal conditions, consider using 3 laps as this allows for shortening the course at the leeward mark(s) on two occasions. Avoid sending leaders on a further lap if they approach the leeward gate close to the Target time. Also see later section on Shortening the course.

1. **For Tier 1, 2 and 3 events:**

- Start a race in no less than 8 knots of wind or if sailors are demonstrating that they can foil effectively. Don't be afraid to start if some boats cannot foil. Providing foiling is possible, go for it. If during the pre-start, less than 50% of boats appear able to foil, consider postponing.
- If, after the starting signal and before the first windward mark:
  - no boats are foiling and there is no obvious sign that the wind will increase imminently, abandon the race.
  - less than 30% of the fleet have foiled, consider abandoning the race.
  - between 30% and 50% of the fleet have foiled and there is no clear downward trend in wind strength, continue the race. If there is a clear downward trend in wind strength, consider abandoning the race.
  - 50% of the fleet or more are foiling, continue the race.

- After the first windward mark, if required to meet the target time or if less than 50% of the fleet are foiling, prepare to shorten the race.
- If a race is shortened, or if you regularly observe less than 30% of the fleet foiling, reset. Don't start another race until the conditions have improved and the 50% foiling guideline during the pre-start is achieved.
  Note: the consistency of wind strength may affect your decision. Where the wind is gusty so that most sailors experience some foiling despite a lot of lowriding, you may be more inclined to continue the race. Whereas, very consistent wind that virtually guarantees no foiling for the majority of the fleet is more deserving of abandonment.

2. **For Tier 4 events,** if the conditions are simply light and there is no reason to believe postponing racing will offer any better chance of foiling, the fleet should race. Some low-riding sailing may be better than no sailing at all. Make the course very small to keep things tight and only go for 2 races, maximum 3. Make the race management team's intention clear to sailors and stand by it.

If a race starts in foiling conditions and the wind dies during the race so that some or all sailors are low riding, the race should continue to the finish but should be shortened where possible. Remember, the ability or inability to foil does not necessarily impact fairness. In this scenario, a Race Officer should remove the foiling element from their decision making and should apply the same principles as they would to traditional classes when considering fairness and whether a race should be abandoned or not in light winds. Shorten the course at the first leeward gate if you can – but be prepared to record the finishes at the gate!

Launching

Safe and sheltered launching is crucial for the WASZP class. A wide slipway or sheltered beach with plenty of space to sail out from is ideal. Waves at the launching area make launching and recovery disproportionately more difficult in comparison to non-foiling classes.

Each boat will take approximately 90 seconds to launch. If a 40-boat fleet is launching single file one after the other, be prepared for launching to take an hour; if two boats can launch at once, expect 30-40 minutes; and if four boats can launch at once, it may only take 15 minutes to get everybody onto the water. A WASZP isn't a relaxing place to wait around on for long periods, so minimising the waiting time for the first boats that launch is important.

Set the time limits from AP removed or Delta displayed deliberately tight to get the fleet moving. Sailors generally are happy to arrive at the course and go straight into sequence. Also, where the fleet is small enough, for maximum flexibility add a provision allowing racing to start "once all competitors have arrived in the starting area".

WINDWARD LEEWARD RACING

See the quick guide above for course options and basic information.

Choosing the Number of Laps

The more laps sailed, the more complicated the scoring becomes with the Grand Prix Finish.

Two laps is the default.

Three laps may be used for a tight venue with a small fleet or where the lower-end ability level is particularly low (if the lead boat does three laps in 20 minutes with a 10-minute finishing window, a backmarker needs to do one lap in 30 minutes to get a score – which is only 22% of the speed of the leader).

Shortening the Course

The procedure and rules are no different to other classes.

If the course needs to be shortened and you are using gates, the finish line will be the line between the gate marks (RRS 32.2(c)).

Station a boat flying an S flag with a view along the new finishing line between the gate marks to take the finish positions and record (with video). Early preparation for this is essential.

It is tempting to ignore this rule when shortening and allow boats to sail around 2p to finish. However, especially if it's low riding conditions, this is not fair for sailors on the downwind who may have positioned themselves for the opposite gate mark.

Changing the Course

Once a race has started, there is very little opportunity to change the course because the fleet spreads out so quickly that the leaders soon overtake the tailenders and there are boats in every position on the course.

The Start

Display the orange flag two minutes before the warning signal.

The starting sequence for fleets is specified for large vs. small fleets as follows:

- Large (over about 25 boats); sequence is 5,4,1,0 as per RRS 26
- Small fleets (25 and under); sequence is 3,2,1,0 (must be written into the SIs).

Start with the U flag and move to black if there is a general recall. To prevent OCS boats sailing downwind through a busy start line to get to the pre-start side at high closing speeds, the P flag should not be used.

Set a line length according to the quick guide above. Make a judgement on how the fleet performs. In mixed ability fleets you may not need a long line because you can rely on some sailors to be late, as opposed to gold fleet racing where everybody is front row. The practical limit for line length is

around 500m (regardless of fleet size). Course geometry and the ability to call numbers become limiting factors.

Aim to set a SQUARE line in all conditions. Pin bias encourages port starts, which results in the potentially dangerous situation where boats on opposite tacks in a busy area come together with closing speeds over 30 knots. Always expect the starboard end to be busy – this is a typical starting technique and does not necessarily reflect whether the starboard end is favoured.

General recalls: Have your fastest RIB ready to display first substitute stationed on a transit of the starting line well beyond the pin end. If your recall RIB is close to the pin, they first must catch up with the WASZPs before driving around the front of them, which can be tricky. Once on the transit, the further from the pin the recall RIB is, the easier to intercept. Sailors rarely hear or see the signals from the signal vessel.

Grand Prix Finish

The Grand Prix Finish makes racing inclusive for less skilled sailors and reduces the amount of waiting time between races. The system ranks sailors by the number of laps they have completed and their finishing order compared to those who have completed the same number of laps. The lead boat might complete three laps whilst an intermediate sailor might complete two and a beginner might complete one, but they will each receive a score and not a DNF. Crucially, a sailor needs to sail just one lap to get a score. A sailor may choose to sail one lap and stop and wait, even if the lead boat has not yet finished – this is ok.

Accurate lap counting is crucial to the success of the system and the avoidance of scoring enquiries and mistakes on results, so a team of sharp volunteers is vital. For big fleets, don't underestimate how intense lap counting can be, so assign your resources carefully.

Nominate one boat as the primary lap counter (usually the signal boat) and another stationed at another viewing angle to be the back-up (usually the leeward mark layer or pin boat). The signal vessel may be either of those and the pin boat or leeward mark layer often steps in as the other.

Always accompany lap counting with video recording and voice recording. A scribe is useful, but often cannot keep up so should not be relied upon as the sole method of recording. It doesn't take much time to create the lists from the voice recording after the race.

Where a number cannot be seen or is missed, any further information such as hull colour, tramp colour or country is helpful. WASZPs come in a variety of colour combinations that narrow down the options significantly. Officials may get a download of the colour information from the RaceHub entry system (via the Class Representative).

Numbers only need to be recorded at the leeward marks.

Record every boat that passes through the leeward gate. Before the race, agree with the other lap counter boat which mark is your priority mark. At times when it is too difficult to record both marks at once, each can default to their priority mark and return to counting both marks when they get the chance. The two lists can be matched up later. The lap counter boats should not count a single mark each for the entire time because it would be impossible merge the lists to create the full rounding order.

When the lead boat crosses the finishing line to finish, the lap counting stops immediately (make this moment clear if using a continuous recording method) and the boats crossing the finishing line must now be recorded instead.

Ensure you track the race leaders on the final downwind leg so you know when to signal the finish line opening. Your windward mark RIB can help with this. Display the finish flag with a long, loud sound to alert backmarkers in the vicinity. The finish flag (WASZP may supply a conspicuous, specific finish flag) may be displayed as soon as it is clear that the lead boat will be the next boat to pass through the gate (and not a backmarker) or as the lead boat approaches the final mark. If using a course with a reach to the finish, a repeater finish flag should be displayed from a RIB at the gate to ensure boats approaching the leeward mark(s) are aware not to complete another lap. The finishing window opens when the lead boat crosses the finishing line (and not when the flag is displayed), so make a note of the time.

If the course is shortened, the accurate recording of finishes may become the responsibility of a different committee vessel, so ensure they are briefed and prepared with flag S and recording equipment.

At the end of the finishing window, all recording stops. If using a course with a reach to the finish, the recording team should identify the order of any boats on the final reach when the finishing window closes to determine their correct ranking.

Sorting the results

Boats that completed more laps are ranked ahead of boats that completed fewer. Boats that completed the same number of laps are ranked in the order than they completed their last lap.

After a successful race recording, you will have 2 lists – the leeward gate list and the finish list (plus possibly a selection of numbers recorded on the final reach in the scenario above).

For a 2-lap race, a boat that sails two laps will feature on both lists. Boat X features on the leeward mark list but not the finish list so did one lap; whilst Boat Y features on the finish list but not the leeward mark list; also completing one lap. Boat X is ranked ahead of Boat Y because Boat X completed one lap before Boat Y.

The more laps, the more complicated it becomes. For a 3-lap race, the winner will feature on the leeward mark list twice and finish list once. You then have to create a hierarchy based on the number of times a boat appears on the list.

There is an example list with explanation at the bottom of this section.

Sample wording for sailing instructions:

1. GRAND PRIX FINISH

1.1 Unless shortened in accordance with RRS 32.2, the finishing line is between the staff displaying a blue flag on the signal vessel and the course side of mark 2p *(or the finish mark if a separate line)*.

1.2 The finish flag will be [description].

1.3 When the leading boat is in the vicinity of mark 2p for the final time, the signal vessel at the finish will immediately display the finish flag with a sound signal. The finishing window opens when the lead boat crosses the finishing line. The finish flag will be removed at the end of the finishing window time limit, or when the last boat finishes, whichever is earlier.

All boats that

i) have completed a lap before the finishing window opens but then fails to finish while it is open, or

ii) cross the finishing line whilst the finish flag is displayed

shall be deemed to have finished irrespective of the number of laps completed. Their score in the race will be based on the order when they either completed their last lap or finished, with those having completed more laps finishing ahead of those with fewer laps. This changes RRS 28.1 and A4.

1.4 When the finish flag is displayed, all boats on a downwind leg shall round mark 2p and sail through the finishing line.

1.5 [DP] A boat that crosses the finishing line when finish flag is displayed shall not attempt a further lap.

Grand Prix Finish Example: Below is an example of a finish list for a WASZP race

FINISH FORM

Race number	Fleet	Date
1	-	01/07/2021

Race area	Time of first boat	End of finishing window
-	12:23	12:33

		FINISH			
2106				1	2106
2798				2	3001
3001				3	2798
2511		2106		4	2469
2469		3001		5	2445
2445		2186		6	2314
2688		2798		7	2096
2096		2469		8	2864
2314		2445		9	2275
2275		2314		10	2554
2864		2096		11	2511
2554		2864		12	2916
2117		2275		13	2228
2228		2554		14	3102
2916		2916		15	3118
2106		2228		16	2117
2798		3102		17	2994
3001		3118		18	2688
2511		2117		19	2186
2469		2994		20	2666 (DNF)
2445					
2096					
2314					
3102					
3118					
2275					
2864					
2554					
2994					
2117					

Above is an example of a finish list for a WASZP race. In this example, the fleet is small, so everything fits on one sheet. With a larger fleet, multiple sheets may be needed.

On the water:

- The recorder wrote down every number passing the leeward gate
- When the lead boat was approaching the finish, the recorder started a new column and wrote down the order of boats that crossed the line during the finishing window.
- Making it clear which boat crossed the finishing line first is important.

Key facts:

- 20 boats started this race
- The course is 3 laps
- Gate list; Sail numbers in the first column are the numbers counted around the leeward gate. This is the gate list.
- Finish list: Sail numbers under "FINISH" are the numbers that crossed the finish line during the finishing window. This is the finish list.
- Final rankings of the race; The sail numbers in the red box to the right.

Sorting the results:

Note: If you're going old school…It is helpful to have a different colour highlighter for each lap and at least two people working on the results of a single race. Photocopy the sheets before you begin so that you have a backup in case you make a mistake. If you are tech savvy, inputting the numbers into an excel sheet formulated to recognised valid numbers (a number on the entry list) and duplicate numbers is effective and easy to come back to after scoring requests.

- Start at the finish list. 2106 is the first to cross the line. The red circles show 2106 appears a total of three times, so they sailed three laps. 2106 is highlighted in yellow. Repeat this process going down the list, highlighting the different number of laps in different colours.
- 2186 – the third boat to cross the finish line – does not appear on the gate list. It appears once in total. Therefore, despite crossing the line in third, 2186 only sailed one lap. 2186 is highlighted in pink.
- 2916 appears twice in total. Therefore 2916 sailed two laps. 2916 is highlighted in green.
- After all numbers in the finish list are highlighted, check for unhighlighted numbers in the gate list. 2511 and 2688 are the examples here.
- 2511 appears twice in total, so sailed two laps but failed to cross the finishing line within the finishing window. 2511 is highlighted in blue. Notice that 2511 completed two laps before any of the numbers highlighted in green completed two laps, so is ranked ahead of the green numbers.
- 2688 appears once in total, so sailed one lap but failed to cross the finishing line within the finishing window. 2688 is highlighted in dark green. Notice that 2688 completed one lap before 2186 completed one lap so is ranked ahead of 2186.
- 2666 started the race but does not appear on either list. Therefore, 2666 failed to complete one lap and scores a DNF.
- Re-write the list in the order of the boats that completed three laps, those that completed two laps, those that completed one lap and those that scored letters (DNC, DNS, DNF, OCS, UFD, BFD, RET, NSC, DSQ, DNE).

SPRINT RACING

There is no fixed formula for Sprint racing because it is dependent on fleet size and sailor skill level. The most important factors are:

- Appropriate course choice for the skill level of the fleet
- Appropriate format based on fleet size and number of races per sailor
- Time-efficient system: minimising the waiting time on the water

Below are some guidelines.

Course

Slalom: use this as the default option for a skilled fleet.

Box: use this for a mixed ability fleet or lower skilled fleet where you are operating in flights.

Compact: use this for a mixed ability fleet when operating as a single fleet.

Format

Knockout: Used in large fleets in a tournament style. The top X from each flight progress to the next round, eliminating sailors each race until a final. The score from the final race(s) decides the Sprint winner. The negatives of this format are that (1) a large percentage of the sailors are eliminated after the first race; and (2) it is impossible to score every sailor and include this in the overall series.

Progressive Tournament: After each race, the top X progress 'up' for the next race whilst the bottom Y move 'down' for the next race. This format allows for multiple finals to decide the final ranking of the Sprint. See below for a working example. The advantage of this is that all sailors get the same number of races regardless of their performance and the results can be used in the overall series. It does require very careful planning and clear briefing to the sailors.

Round Robin: Splitting the fleet into 4 or more flights of equal ability and racing the flights two at a time, rotating the combinations after each race. This is simpler for the sailors and race committee. An ability-based final (where the top sailors battle for overall victory) can be added as long as results can be calculated on the water and Race committee communications are clear.

Mini-series: A single fleet mini-series, the rank of which counts as one race in the overall championship. Multiple mini-series' may be sailed back-to-back.

Scoring

Unless using a stand-alone knockout tournament, typically the final rank of each Sprint series counts as a single race in the overall championship. This is because a mistake in a Sprint race may be impossible to recover from, so using the series score manages the risk and balances the weight against a traditional race. Dedicated Sprint events do not need to do this and there may be cases where it is appropriate to count each Sprint race as a single race in a mixed format event.

The Start

The starting sequence for Sprint racing is 3,2,1,0. This changes RRS 26. Use the black flag.

Where multiple flights are in operation, aim to keep things efficient by starting a race every 5 minutes. 5-minute intervals are a useful way for sailors to keep track of their timings.

See the example below.

The Finish

In Sprint racing, the finishing line is by far the most intense place to be. Station your sharpest volunteers here and equip them with video and voice recording devices.

Judging/Umpiring

In a knockout or progressive tournament, on-water umpiring is valuable and is always required during a championship. There is no time for hearings on the water because this would result in a large delay for all other sailors.

Working with umpires to outline the rules for penalties and the umpiring system in the sailing instructions is important. For the WASZP Games, a WASZP adaptation of Appendix UF is used.

For a round robin or single-fleet format, hearings may be held as normal.

PROGRESSIVE TOURNAMENT EXAMPLE:

This example from the 2024 WASZP Games had two tournaments running in parallel, each with 80 boats split into 4 equal fleets of 20. The Gold fleet used the Slalom course and the Silver fleet used the Box course.

The results of the fleet in the F races dictate the overall ranking of the Sprint tournament, which in this case counted as a single race in the WASZP Games championship. F1 were ranked 1-20; F2 were ranked 21-40; F3 were ranked 41-60; and F4 were tanked 61-80.

Estimated timings	Race
FIRST START	Q1
+5	Q2
+10	Q3
+15	Q4
+20	
+25	S1
+30	S2
+35	S3
+40	S4
+45	
+50	F1
+55	F2
+60	F3
+65	F4

Q1	Top 10	S1	Top 10	F1
			Bottom 10	F2
	Bottom 10	S2	Top 10	F3
			Bottom 10	F4
Q2	Top 10	S1	Top 10	F1
			Bottom 10	F2
	Bottom 10	S2	Top 10	F3
			Bottom 10	F4
Q3	Top 10	S3	Top 10	F1
			Bottom 10	F2
	Bottom 10	S4	Top 10	F3
			Bottom 10	F4
Q4	Top 10	S3	Top 10	F1
			Bottom 10	F2
	Bottom 10	S4	Top 10	F3
			Bottom 10	F4

Timings

Minimising waiting time in the Sprint tournaments is important. During each set of races, a race starts every 5 minutes. All races start on a multiple of 5. This keeps things efficient and easy to follow.

As the starting sequence is 3,2,1,0, the committee boat has a 2-minute gap between each start to prepare.

Appropriate gaps are inserted between each round to ensure sailors can return to the starting area for the next race.

Format

The format is designed to maximise the overall number of races for all sailors. Nobody gets knocked out.

Communications to sailors

Making the format clear to sailors is the most important aspect of Sprint. Publish a table like the above to show sailors which races they progress to in the next round and highlight that:

- The race code will be displayed on the start boat (and on a repeater boat)
- It is the sailor's responsibility to understand their route to the final and to start in the correct start. Printing waterproof cards with the Sprint format above is a helpful reminder – that way a sailor only needs to remember their initial fleet assignment
- If their number is not on the board at the finish, they are not in the top X or have not made it to the next round

The start

Ensure the race code for each start is clearly displayed on the pre-start side of the start boat. For big fleets, this code may be repeated on a RIB in the pre-start waiting area. As soon as each flight starts, assign a person to change the race code immediately so the sailors can prepare. Communicate this to the repeater boat.

The finish

Set a 2-minute finishing window. In reality, the top X you need should all be safely through the line in a fraction of that time so the finishing window is usually only needed for the final races that decide the overall ranking of the Sprint tournament.

Other than being in a WASZP yourself, the finish boat is the most intense place on the Sprint course during a progressive or knockout tournament. For a round robin or single-fleet format, it is business as usual.

The volunteers on the finish boat need to perform several tasks in a short period of time. Assuming a race starts every 5 minutes, each fleet takes around the same time to sail the course and all boats finish within a 2-minute finishing window; the finish boat has 3 minutes to:

- Record the finishes (which may need video review)
- Check the boats were in the correct fleet
- Check any BFD from the committee boat
- Check any DSQ from the umpires
- Display the top X boats on a whiteboard

Recording the finish:

- Confirm any BFDs from the committee boat after the start and display on a board
- Have one person calling numbers and videoing at the same time. Call loudly into the video and loud enough that your scribe can hear
- Write the race code that the sailors listed will qualify into at the top of the board
- Have the scribe ready to write numbers directly onto the whiteboard as they are called
- As the numbers go onto the whiteboard, have a third person check the numbers against the fleet list for each race
- Except for the final races, if 10 numbers are needed, stop after 13 or so numbers so not to waste time, and check the numbers on the board against the video recording
- Check any DSQ from the umpires

- Ensure somebody records the numbers onto a start sheet for the next race. For a progressive tournament, any numbers not in the top X are assumed to be in the bottom and will be automatically inserted into the appropriate next start. See below as a scoring sheet example.
- Once the top X numbers are confirmed, display the board to sailors (displaying lima at this point is a helpful visual signal)
- For the final races where the score of the Sprint tournament is decided, the results for all boats are required

Below: A scoresheet for the first set of races in a progressive tournament. The results are recorded vertically, and the starting list for the 'S' races are presented by colour.

		Q1	Q2		Q3	Q4
1	S1			S3		
2						
3						
4						
5						
6						
7						
8						
9						
10						
11	S2			S4		
12						
13						
14						
15						
16						
17						
18						
19						
20						

KNOCKOUT TOURNAMENT EXAMPLE: timings of a knock-out tournament with 80 boats: 8 heats, 4 quarters, 2 semis and a final.

The same processes for Progressive tournaments above are relevant for Knockouts too, except that the finish boat is only interested in the top X that progress.

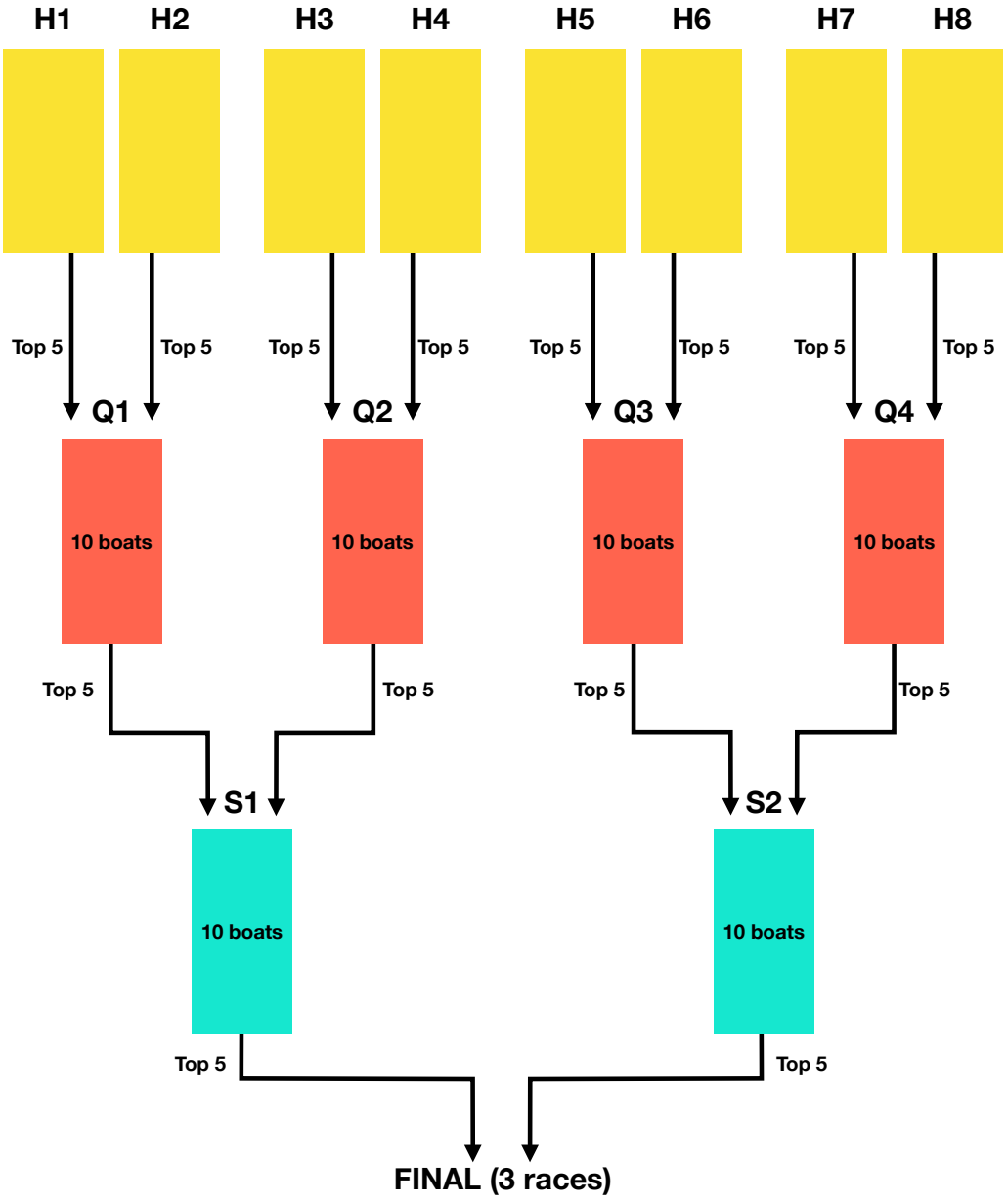
Note the explicit timings and 5-minute intervals. A sailor in H7 that lost track of time could easily work out that their race started at 1130.

HEATS	1050	Orange flag displayed
	1057	Warning signal displayed
	1058	Preparatory signal displayed
	1059	Preparatory signal removed
	1100	Warning signal removed. Start of H1
	1102	Warning signal displayed
	1103	Preparatory signal displayed
	1104	Preparatory signal removed
	1105	Warning signal removed. Start of H2
	1107	Warning signal displayed
	1108	Preparatory signal displayed
	1109	Preparatory signal removed
	1110	Warning signal removed. Start of H3
	After 8 heats…	
	1135	Warning signal removed. Start of H8. Orange flag removed.
Q FINALS	1140	Orange flag displayed
	1147	Warning signal displayed
	1148	Preparatory signal displayed
	1149	Preparatory signal removed
	1150	Warning signal removed. Start of Q1
	After 4 quarter finals…	
	1205	Warning signal removed. Start of Q4. Orange flag removed.
S FINALS	1210	Orange flag displayed
	1217	Warning signal displayed
	1218	Preparatory signal displayed
	1219	Preparatory signal removed

	1220	Warning signal removed. Start of S1
	After 2 semi-finals…	
	1225	Warning signal removed. Start of S2. Orange flag removed.
Display orange when all final sailors are in the starting area. If doing more than 1 final race, more time is needed between races to allow the competitors to return to the start.		

KNOCKOUT TOURNAMENT EXAMPLE: format of a knock-out tournament with 80 boats: 8 heats, 4 quarters, 2 semis and a final.

Note the routes to the final at the bottom of the page. This is crucial information for sailors to record and take on the water. It is their responsibility to start in the correct start!



Example:

- **If you sail in H5 and come top 5, you wait until the committee boat displays Q3.**
- **If you come top 5 in Q3, you wait until S2.**
- **If you come top 5 in S2, you go to F1, F2 & F3.**

H1 > Q1 > S1 > F
H2 > Q1 > S1 > F
H3 > Q2 > S1 > F
H4 > Q2 > S1 > F
H5 > Q3 > S2 > F
H6 > Q3 > S2 > F
H7 > Q4 > S2 > F
H8 > Q4 > S2 > F

NASCAR RACING

See the Quick Guide for key points.

Course set-up

NASCAR is designed to offer fast foiling with minimal manoeuvres. It can be a good option in marginal foiling conditions because it forces boats into the power zone to encourage them to foil. As it gets windier, it becomes difficult to control the boat in the power zone, so over 15 knots it starts to become unfavourable as a course choice unless the skill level is high.

The gybe after mark 1 can be a high-pressure manoeuvre. Monitor the gybing after mark 1 and assess if it is too congested and adjust the leg length to mark 2 accordingly.

Start

Start with a U flag or black flag start. In marginal conditions, sailors will favour the upwind end to fight for clear wind, so be prepared to move the pin forward to spread the fleet. As it gets windier, the fleet will be more willing to spread along the line.

Lap counting and the finish

NASCAR uses a similar process to the Grand Prix finish. The difference is the finish flag in NASCAR is displayed after the target time elapses – not necessarily when the leading boat crosses the line. Count every boat through the line on every lap and the results can be sorted at the end in the same way W/L racing results are sorted in the example above.

Sample wording for sailing instructions:

1. *NASCAR FINISH*
   a) The finishing line is between the staff displaying a blue flag on the signal vessel and the course side of the pin end mark.
   b) After approximately 10 minutes of racing, the signal vessel will display the blue flag with a sound signal (regardless of the location of the lead boat on the course).

      All boats that,

      (i) have completed a lap before the blue flag is displayed, but then fail to finish while it is displayed, or

      (ii) cross the finishing line while the blue flag is displayed

      shall be deemed to have finished irrespective of the number of laps completed. Their positions in the race will be based on the order when they either completed their last lap or finished, with those having completed more laps finishing ahead of those with fewer laps. This changes RRS 28.1 and A4.

DISTANCE RACING

Course options

There is no limit to course choice for the Distance Race. Race officers are encouraged to use local features for a unique race experience.

When running a Distance race for a mixed ability fleet, two course options should be included: a full course and a short option. All sailors pass through a checkpoint line and thereafter the long course goes one way and the short another. Sailors may choose which option to complete and will be ranked according to their finishing positions, with those completing the long course ahead of those completing the short (like the Grand Prix finish).

At major events, a counter boats stationed at the checkpoint line and a mark of the long course that are required to record boats to ensure accurate results. At lower-level events, a self-declaration is perfectly adequate.

The hierarchy for results is as follows:

- Those that pass the checkpoint line, complete the long course and finish
- Those that pass the checkpoint line, complete the short course and finish
- Those that pass the checkpoint line and the long course mark but do not finish
- Those that pass the checkpoint line but do not pass the long course mark and do not finish
- Any boat that does not pass the checkpoint line is scored DNF

Where a Distance race goes from A to B (rather than starting and finishing in the same place), it may be a good option to include an additional small 'lap' at the finish for faster boats to sail. The full course would have boats passing through the 'finishing line', sailing the additional 'lap' and finishing through the finishing line. When the first boat crosses the finishing line after the small lap, the finish flag goes up and the finish opens. Slower boats that have not yet passed through the finishing line to sail the additional 'lap' shall finish at the line without doing the extra 'lap'. The Grand Prix finish system can be applied here and works as an effective way to keep the fleet under control and have all boats finishing within a narrower window.

The start

The start may be a conventional start. In large fleets, use a gate start.

The gate start may be upwind or reaching.

The gate boat should tow a large inflatable behind so that sailors are not ducking the transom (and engine) of the RIB closely.

Reaching gate start:

For a reaching gate start, you need your fastest RIB that has a sensible wake. There is some maths to be done, or you can use this online gate start calculator: https://class3599.wixsite.com/gatestartcalculator.

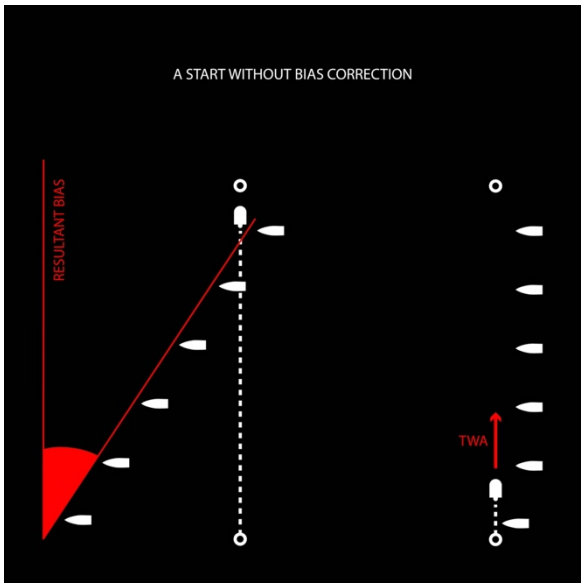
After all boats have passed behind the gate boat, the aim is for the entire fleet to be evenly spread with 5-10 degrees of pin 'bias'. A small advantage to the leeward end is a good standard because it allows sailors to make the choice between (1) exploiting the leeward advantage but risking the

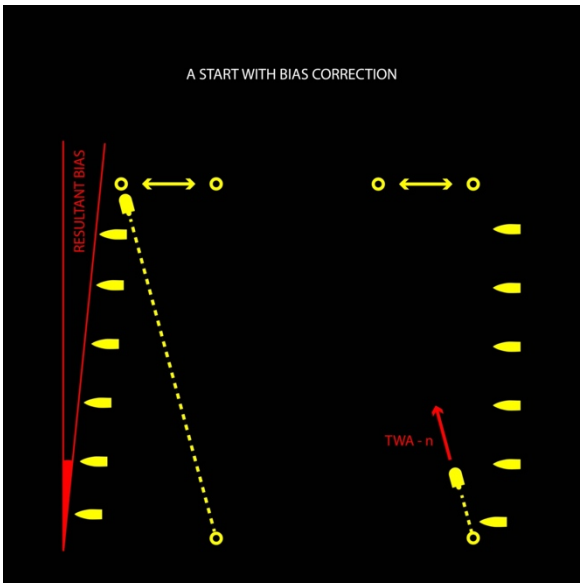
catastrophic bad air if their start is poor, or (2) giving up all leeward advantage but guaranteeing clear air. A position anywhere between the ends sits on a sliding scale between those two scenarios.

The maths…

If the Gate RIB drives directly upwind, unless it is lightning fast, the leeward advantage will be too great by the time the most windward boat starts. The gate RIB needs to therefore drive at an angle that is (TWA – *n*).

Calculating *n*: The online calculator (https://class3599.wixsite.com/gatestartcalculator) gives you the numbers you need for a perfect start. It also allows you to tweak the line if the conditions, and therefore the boat speeds of the WASZPs, change.





This style of start is not well-practiced, even for WASZP sailors, so it is important to communicate the procedure in advance and it is helpful to highlight an approximate destination for the Gate RIB, which could be a mark, boat or point on the land.

Upwind Gate Start

This RIB driver needs to be highly skilled, understand WASZPs and have nerves of steel. The WASZPs will approach the Gate RIB at high closing speeds. The RIB will be required to pass closely to boats and must resist the temptation to deviate from its heading as much as possible.

The aim for this start is for the Gate RIB to imitate a WASZP sailing full speed on a close-hauled course on port.

The signal vessel will run a 5-minute start, and at or very shortly after the starting signal, the Gate RIB will pass the signal vessel and proceed on the correct heading and speed.

Ensure the Gate RIB tows a large inflatable mark behind to ensure no possible collision of foils (or sailors) with the engine.

Highlight a destination reference for the Gate RIB to indicate the approximate position the Gate RIB will stop and therefore the maximum extension of the line. Aim to put the reference slightly downwind of the track of the Gate RIB to prevent sailors creeping forward too early and ensure the SIs make it clear that the reference is a guide only.

Identify the speed and heading of the Gate RIB by reviewing GPS data of boats in similar conditions; and by instructing the Gate RIB to follow several WASZPs sailing close-hauled on port before the race. A starting point is TWA + 55° at 11-13 knots.

<u>Sailing Instructions for a Gate Start:</u>

Long Distance Race

a) The starting line is between the staff displaying an orange flag on the signal vessel at the port end and the course side of the furthest aft point of the gate vessel and its appendages at the starboard end.
b) For a reaching start: At the starting signal, the gate vessel will drive directly from the signal vessel at the port end to the course side of REFERENCE POINT DESCRIPTION e.g. the reference point vessel displaying an orange flag *or* the white reference mark *or* the club race box on the shore, where the Gate vessel will stop.
   For an upwind start: At the starting signal, the gate vessel will drive directly from the signal vessel at the port end to the course side of REFERENCE POINT DESCRIPTION e.g. the reference point vessel displaying an orange flag *or* the white reference mark *or* the club race box on the shore at the approximate speed and heading of a WASZP sailing close-hauled on port. Where the gate vessel intersects a line that extends directly upwind of the reference point, it will stop.
c) Any boat that:
   (i) crosses in front of the gate vessel after the starting signal,
   (ii) the gate vessel leaves to port,
   (iii) makes contact with the gate vessel or its appendages, or
   (iv) causes the gate vessel to change course or slow down

   will be disqualified without a hearing from that race, even if the race is restarted or resailed. This changes RRS 36 and A5.1.

d) The gate vessel will be a RIB displaying a DESCRIPTION flag.

SAFETY MANAGEMENT

This section includes some tips on safety that differ for the WASZP fleet in comparison to conventional dinghies. Race officers are encouraged to consult the class representative on safety procedures and should invite the class representative to safety briefings. Race Officers should also be prepared to lean on the top sailors in the fleet for assistance – they are the experts on the boat. Identify these sailors before racing and explain how their help might be needed. In the WASZP fleet, sailors are always happy to help.

Ratio

There is no fixed rule on safety ratios – this is down to the organising authority based on their standard procedures with consideration of the following information. At large events, coach boats may be included in the ratios providing the appropriate rules for support vessels are outlined in the race documents.

Wind limits

The upper wind limit is described earlier in this document as 25 knots minus 1 knot for every 0.25m of sea state. A 25-knot average applies to a good quality fleet in perfectly flat water. Here is more detail to consider:

The upper wind limit is on a sliding scale depending on wind strength, sea state, quality of the fleet, safety resource and location of the course.

Sea state is crucial to the WASZP. There is 1m of foil below the boat, so conditions with waves over 1m high could be challenging. The wave height in the formula doesn't take into effect the wave period. A 1m steep chop will be much more challenging than a 1m rolling swell.

Quality of the fleet is another important factor. The class representative will be able to advise here. In 20+ knots, a Race Officer can expect to have resources stretched to the maximum during the first race. Don't get spooked – natural selection will usually run its course, and the fleet will get smaller and higher quality as the day goes on! People should always be encouraged to sail, but if the decision on whether to sail is in the balance, a friendly word of caution at the briefing advising sailors to make a sensible call is worthwhile. A sensible call could be not to go at all, or it could be to launch but be prepared to return to shore if it's too much. This needs to be managed well - sailors should never be told that they should not go out because they are not good enough.

Safety resource is down to circumstance based on number of safety boats available and the experience and confidence of their crew. If some sailors choose not to sail, they should be asked to join the safety crews if helpful. The top sailors are by far the most valuable safety resource as they will normally be pleased to go back out to sail other boats in, see below. It is worthwhile reminding the top sailors (at a briefing) that their help may be required and to stand by when they get ashore.

Location of the course can be a critical factor in deciding whether to go afloat. It is far easier to sail the WASZP upwind than downwind when it is windy and wavy. If the course is upwind of the launch area and the conditions are on the edge, sailors may be able to competently sail to the course area but could struggle to get downwind to the shore again! A Race Officer can be more confident instructing the fleet to launch if the course is downwind of the launch area because sailors can always

make it home without assistance and the weaker sailors soon realise the conditions are too much when they can't get downwind to the start.

It is helpful to identify to the sailors a safe haven upwind of the course if there is one available, even if this isn't the launch area. An alternative sheltered beach where boats can land in an emergency if safety crews are too stretched to take them ashore can preserve the capacity of the safety team.

Other windy weather considerations:

Brief the sailors to stay in the vicinity of the starting line before and between races to minimise the strain on the safety team.

Some racing is better than no racing. If the safety resource is too small for the entire fleet, as a last resort the fleet could be split in half with only half the fleet racing at one time. It would require some changes to the SIs and cooperation from the sailors, but everybody will support some racing over no racing.

Turning Points

Turning points are risk areas in WASZP racing. It is critical the gates are square so the fleet evenly divides itself between the marks. If in doubt, make the gates big to start with and make them smaller after the first race if needed.

Safety Brief

The following points should be included in a safety briefing for volunteers:

- Helmets are mandatory for all sailors.
- Do not fear the foils. The foils are blunter than most other foiling boats. They can be handled firmly without gloves. Laceration injuries may be possible if a plastic wing tip is damaged (leaving a sharp corner) and there is a collision with a sailor and a foil, but generally lacerations are very unlikely.
- The risk of injury in the WASZP is lower than other foiling classes. The speeds are lower, foils blunt, and the absence of shrouds means there is less for a sailor to collide with in a crash. Usually, sailors just get wet – nothing worse.
- The most common injuries are knee and ankle twists where a sailor crashes with their feet stuck under the foot strap.
- Capsizing will be very common. Do not panic – only go to a sailor if they call you in or it is clear they are in danger.
- Resting on a WASZP isn't easy. The most comfortable way to rest between races is often capsized. It may be that the entire fleet is deliberately capsized between races.
- Highlight the location of the ride height adjuster and how to disconnect it for towing
- Highlight the towing and recovery techniques in the WASZP Recovery/Towing document
- Highlight the valuable resource of experienced sailors. Never be afraid to ask an experienced sailor for advice or help.
- If a boat needs to be recovered and the RIB crew is unfamiliar with the boat, rely on experienced sailors to come out and help recover or sail the boat in.
- General foiling points: keep bows of RIBs pointed away from the action for a fast getaway. Keep outside of the diamond (the lay lines of the course) where possible. Keep well below the start line and its extensions and do not sit above the port or starboard end to watch the

start – you will be in the way! Keep well clear of the finishing line to avoid confusion for sailors and allow them to clear the area without obstruction.

Recovery/Towing advice

See the WASZP Recovery/Towing document for more detailed techniques.