

Making the case for the use of Leeward Gates in Match Racing

Dave Perry

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The leeward gate was used at the 2011 US Match Racing Championship (USMRC), as well as at the 2011 Grade 2 Oakcliff International; and is used on the World Match Racing Tour and in the America's Cup World Series events. It continues to be well received by the sailors and umpires alike. The sailors like the opportunities the gate provides for the trailing boat to be in a better position to pass the leader after the leeward mark. The umpires report no complications caused by the gate, despite some initial concerns. And the race committee is able to maintain the course configuration with just one mark set boat, as usual.

I am a strong proponent of using a leeward gate in all match racing, as it quite simply makes the game MUCH BETTER for the players. Fellow USMRC competitors Scott Dickson and Brian Angel both agreed it enhanced the racing. And Bill Hardesty informed us that the skippers on the World Match Racing Tour prefer them as well.

Chris Love, a veteran match racing videographer, who sees the game from the media point of view, wrote after the 2011 USMRC: "The racing was much more exciting to watch. Even when the trailing boat makes no gains on the leader, at least the audience thinks they have a chance. After the leeward mark, we don't know who's ahead until they come together again. Very often the trailer does make gains and an otherwise uneventful second half of the race becomes exciting again."

I strongly encourage all match race organizers to try using the leeward gate as much as possible. Please feel free to report to me your experiences with the gate, so we can all gain from people's experiences to fine tune the race course.

Here is some rationale for using the leeward gate:

- 1) The race course in match racing should provide the most opportunities for the trailing boat to pass the leading boat while still maintaining a fair test of skill.**

This is the reason match racing uses short courses, starboard roundings and downwind finishes.

With the single leeward mark, the leader at the leeward mark wins close to 80% of the races, and typically the leader extends their lead after the leeward mark. No sport is enhanced when the leader at halftime has such an advantage. Sports are the most exciting for the players and spectators when the outcome is unknown as far into the game as possible.

The reason for this large advantage for the leader is that the trailing boat has two bad options when rounding a single leeward mark close astern of the leader:

- a) remain on starboard tack in the disturbed air and water of the leading boat, and fall further behind; or
- b) tack around the mark, often before being up to full speed.

The leader on the other hand is up to better speed having rounded the mark before the trailing boat, and can easily tack simultaneously when the trailer tacks around the mark.

This is a huge advantage for the leader:

- a) if the trailer tacks back, the leader can tack on their wind before they are up to speed, forcing them to tack back downspeed. The leader can either build speed before tacking back and extend their lead, or

- can tack back on the trailer, forcing the trailer to either tack again even more downspeed, or try to build speed under the leader; and
- b) when the leader tacks to port the first time, they can often put their bow down and move forward into an even stronger position.
 - c) If after both boats are on port, the leader decides not to tack to starboard when the trailer does, they can cross over and pick up the powerful starboard advantage for the rest of the leg.

2) A well set gate opens up the game tactically for the trailing boat, and gives them some options that can increase their chances of passing the leader

If the gate is set square to the wind, or with the left-hand gate mark (looking upwind) set slightly higher than the right-hand mark, if the boats were to round the marks at roughly the same time, they would have a piece of each other when they tacked and converged. This is exactly the desired beginning to the second beat. Note: this is the goal of a well set starting line; it is exactly the same concept.

The leader gets the advantage of choosing which gate mark to round, but this is not always an easy decision; and it gives the trailing boat the option to choose to round the same or different mark as they wish. Making the boats make more choices is good for the racing and can present opportunities for the trailing boat to gain.

3) The race course configuration should be whatever provides for the best game for the competitors and spectators / media

That the gate is more work or challenge for the race management team or umpires should not be a reason not to use it, if using it makes the game better.

For many match racing courses, several windward marks are set before the start, and the mark-set boat then takes up position near the leeward mark to monitor the wind and make course change signals as appropriate. That same mark-set boat can easily monitor the gate as well.

The gate should be set either perpendicular to the wind or with the left-hand gate mark (looking upwind) slightly more upwind than the right-hand mark. This is obviously because the boat that rounds the right-hand mark will also pick up the starboard tack advantage; so balancing that with slightly favoring the left-hand mark is good. Also, if one of the marks is farther upwind, you want it to be the left-hand mark, so if both boats race to it, they are competing for a starboard rounding as they would be if there was a single leeward mark.

As long as the sailors know the gate will be set reasonably square to the wind, the gate can be adjusted during the race. Obviously it is preferred to have the gate set when a pair begins the run, but boats won't decide which mark to round until a ways down the run when they can determine the laylines, etc.

The two marks should be set about three (3) lengths apart max. The closer the two marks, the less difference it will make if they are not set perpendicular to the wind. Also, with the marks three lengths apart, a leeward inside boat at one of the gate marks will quickly become the leeward outside boat at the other, thereby discouraging or preventing her from luffing the other boat inside the zones. And in practice, the two boats choose their mark and round it with little or no interference to the other.

Race committees are used to setting gates for fleet racing world-wide, so this is not new race management technique. And IF one of the marks drifts (which can happen with any mark), the mark-set boat can simply pick it up, and the SI's should have a clause instructing the boats to round a single leeward mark to starboard.

4) Here is a sample NOR and Sailing Instruction that permits the race committee to use a gate:

NOR 11 COURSE

11.1 The intended course will be a windward/leeward/windward/leeward course with starboard rounding, finishing downwind.

11.2 A leeward gate may be used.

SI 10 COURSE

10.1 Course configuration

o Mark W

o o Mark L

o-----o Start/Finish Line

10.2 Course Signals...

10.3 Mark Roundings

(a) Mark W shall be rounded to starboard

(b) If Mark L is a single mark, it is to be rounded to starboard

(c) Mark L may be a gate (see rule 28.1(c)); if one of the gate marks is missing, the remaining gate mark is to be rounded to starboard

10.4 Description of Marks

At end of list...

(x) when Mark L is a gate, it will be between two small orange balls

(y) when Mark L is a single mark, it will be a large orange buoy