

Racing In Charleston Harbor

Courtesy of Coffee Roasters of Charleston
and
Sea & Caye Sailing



It's been a few years since Carolina and I moved to Charleston and during that time we've had a lot of chances to race in the harbor. Whether on our family cruiser Houzee in the local E Scow regatta's or at Charleston Race Week in the Melges 24 and 20 it's always interesting. I've been right on occasion but I've made some pretty big mistakes as well, I thought in prep for the 2015 Charleston Race Week I'd share some of my experience.

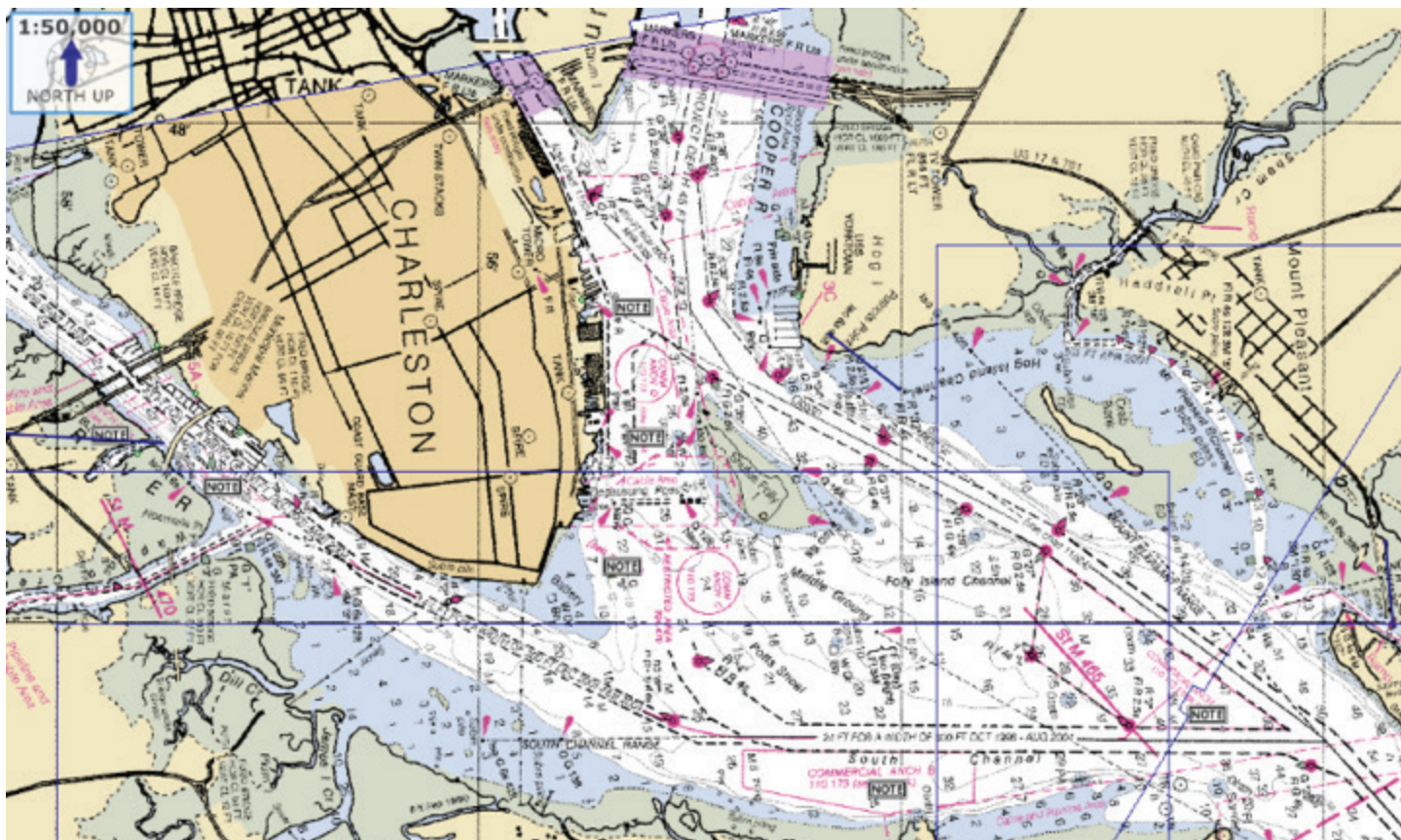
First and foremost it's important to get comfortable with the geography and landmarks which will help you keep your head while trying to juggle the shifts and current machinations during racing. The harbor is the culmination point of three rivers, The

Ashley comes up the coast from the WSW, the Cooper flows in from the North and the Wando comes out of the northeast. The first landmark that will be hard to miss is the Ravenel Bridge which lays on the northern edge of the harbor and connects Charleston to Mt. Pleasant. Looking back at it from the racing area Patriots Point (regatta HQ) is on the right. The two big landmarks in the middle of the harbor are Castle Pinckney and Middle Ground, which is marked by a large metal tower holding antenna. Across the harbor from Patriots Point directly over Castle Pinckney is the Carolina Yacht Club which is on the Battery or tip of Charleston proper. On the other side of the Ashley is the James Island and the James Island YC, where many of the J-70's will sail out of. The harbor mouth is off the tip of James Island to the Southeast and is guarded by Fort Sumter, which usually has a nice flag flying for indicating when a sea breeze is building.

Know the forecasted high and low tides and have an understanding of the depths in your part of the harbor prior to heading out. Current is such a big factor that it usually trumps windshifts strategically. The main channel is cut from the harbor and runs between Castle Pinckney and Patriots Point prior to going under the Ravenel Bridge. Usually the Melges and Viper fleets will sail closest to this channel. The South Channel between Middle Ground and James Island is about 30 feet deep and is a factor for all of the fleets competing in the regatta.

This year tides will be ebbing throughout most of the racing day. Race week plans it's calendar every year around an outgoing morning tide to help the big boats get out to their race course. Here's the NOAA tide table for the event. Low tides are scheduled to occur at 1:37 on Friday, 2:27 on Saturday and 3:15 on Sunday. Expect the tides to shift in the main channel first. One thing that will extend outgoing current is rain on the days leading up to the event and during.

04/17	Fri	01:18 AM	-0.74 L
04/17	Fri	07:27 AM	6.04 H
04/17	Fri	01:37 PM	-1.04 L
04/17	Fri	07:49 PM	6.63 H
04/18	Sat	02:13 AM	-0.91 L
04/18	Sat	08:20 AM	6.04 H
04/18	Sat	02:27 PM	-1.13 L
04/18	Sat	08:41 PM	6.79 H
04/19	Sun	03:05 AM	-0.93 L
04/19	Sun	09:11 AM	5.94 H
04/19	Sun	03:15 PM	-1.07 L
04/19	Sun	09:31 PM	6.78 H



Here's a look at a map of the racing area. Note that James Island and Ft. Sumter are along the bottom edge.

If this is happening expect things to continue moving out well beyond the forecasted low. This is especially true of the Cooper River which connects to the Inland reservoir lakes toward the center of the state.

Generally speaking relief from the current can be found in three places. First it can be found near middle ground and Castle Pinckney. There's a rock pile located on the Southwestern edge of Middle ground called Pott's Shoal. This shoal can be a great spot to look for relief but it's has also taken a keel or two in it's day so be very careful. It's marked... Another area is off the edge of James Island where you will see a beach, this area extends out less than a ¼ mile but if you get in there it can work for you. The third which will only effect the course closest to downtown is a shallow spit around 8 feet deep off of the Battery.

Let me give you a couple real world experiences that did and didn't go well for me. In the Easter E regatta of 2014 our course was set up in the area of convergence between the Ashley and Cooper river, just in front of the James Island and Carolina YC's. There was an outgoing tide and light westerly winds coming straight down the Ashley. Our start was just to

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windward of Middle Ground and the windward mark was just off JIYC the to the NW a bit. Typically this is where the J-24 group races. We planned to go right across the mouth of the Cooper, sticking to the sandbar off the tip of the Battery, or downtown Charleston. After a mediocre start we had to wait for a lane to tack and after finally getting on a port keeping us on our game-plan someone came over and faced us. As this happened a nice right shift formed and we tacked onto starboard, into the flow of the Ashley, and away from our game-plan. In our defense if you are going to sail across current do it in a puff, which we did for a while. The flaw in our thinking was that there would be relief once we reached the other side of the river, in front of the James Island YC. The Channel in the Ashley stays very close to shore near the YC as it turns out and once we got over to that side we spent 20 minutes bucking the tide in dying breeze while we watched the rest of the fleet especially round the Windward mark. The leaders had stuck to the Battery, out of the Ashley's channel as long as they could and then crossed the channel.

This is a classic example of a pothole that you might run into sailing in Charleston Harbor. They are there, and are available for anyone to sail into. Had our course been further out toward Ft. Sumter it probably would have worked as there's relief there but not off the main part of the island near the club.

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In another race again in E Scows when the conditions were quite different but very classic for the harbor we were winning a race. The sea breeze was in coming out of the Southeast. We were racing from Middle Ground toward Ft. Sumter in an outgoing tide. This is a common course location for the Melges and or J-70 fleets. On the last beat as we approached the windward mark Ed Durant tacked very early for layline. I figured there was no possible way he was making it so sailed to what I thought was the layline and tacked, basically bow even with him. To my surprise the current carried him up to the mark and he rounded just ahead of us. Local legend and Sunfish World Champ, David Loring, was on with Ed and he kind of looked back and smirked as they rounded that mark... A little local knowledge can go a long way. In this case it was the strength of the current in the main channel that pushed us left to right as we approached the windward mark that made the difference.

The question usually is, "When should we cross the channel?" When in doubt my advice would be to stay out of it as long as you can until you have a good shift and pressure to cross. There are conditions when the breeze is coming over James Island when there is relief on both sides of the course and both sides can pay. In these cases you need to look at your angles and pressure on the course to determine which side it is that will work better. One thing is for sure, don't spend a lot of time fooling around in the middle if you can help it...

In general there are a few rules of thumb to keep in mind when sailing in any high current venue.

- Test your approach to the starting line so that you can adjust your timing and approach at your actual start. Also note that the current might create a clump of boats at one end or the other.
- If current on your course is pretty even but you are sailing across it on one tack and into it on the other, sail into it in lulls and across in a puff. Otherwise you will be pushed sideways in lulls and lose a lot of ground.
- Use transits as you approach marks and recognize shifts in laylines. Remember you might have to gybe much sooner than you think if the current is running across your course, it's really easy to get swept away and miss your marks. Better to "under" than "over" stand

your marks.

- Avoid clumps of boats at marks that have underestimated the current and are basically stuck, either pinching at the windward mark or kite down in a clump at the leeward mark.
- Keep your eyes out for tide lines and stay on the side that you think will be more beneficial or less detrimental...

Sailing in Charleston can be a bit daunting but hopefully a couple of these tips come in handy as you prepare and race in this year's regatta. We truly hope that you enjoy your time on and off the water. We also want to encourage you to come by our coffee bar and enjoy a freshly roasted and brewed cup of Francisco Davila's Signature Coffee or one of our Sexy Seven latte's and espressos. Carolina and I will be there helping you clear the fog for the day ahead.

Kevin and Carolina started Sea & Caye, LLC a Professional Coaching, Sailing and Consulting business after moving to Charleston in 2013. Clients include owners in the J-70, Melges 24, 20, Scow Classes, PRIME Youth Sailing, Charleston Community Sailing, College of Charleston, Oakcliff and Pistakee Community Sailing School.

When not on the water they are focusing energy on growing Coffee Roasters of Charleston which was started by Carolina's parents Francisco and Caroline. They've donated bags to each boat and run the coffee bar in conjunction with US Sailing in order to promote membership. The coffee stand will be set up at the Patriots Point Marina (next to the Reel Bar and registration tent.) Make sure to stop by, mention this article and Carolina will give you a promo code to order our coffee, delivered fresh to your home!

Visit our websites for more information on both our coffee and our sailing services



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