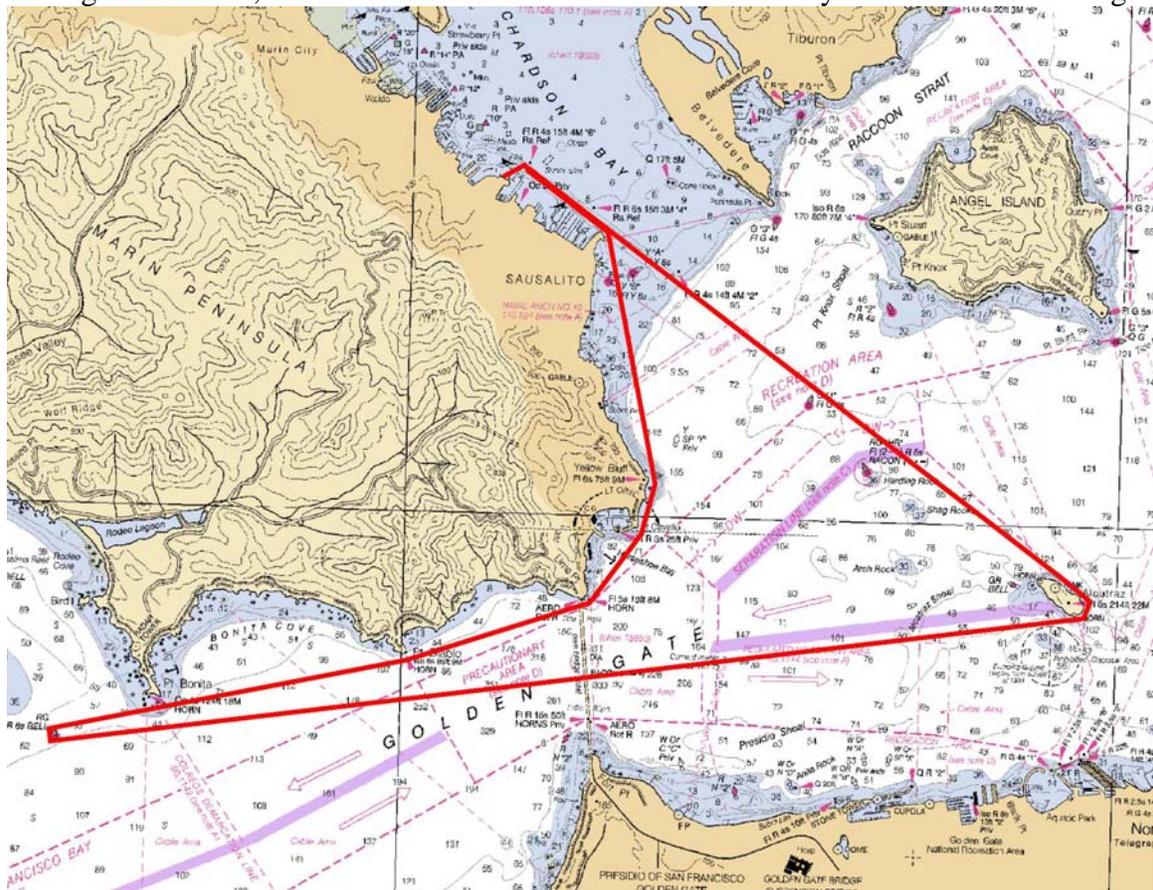


2004 Surfski Nationals, or Reading the River in SF Bay

John Holland

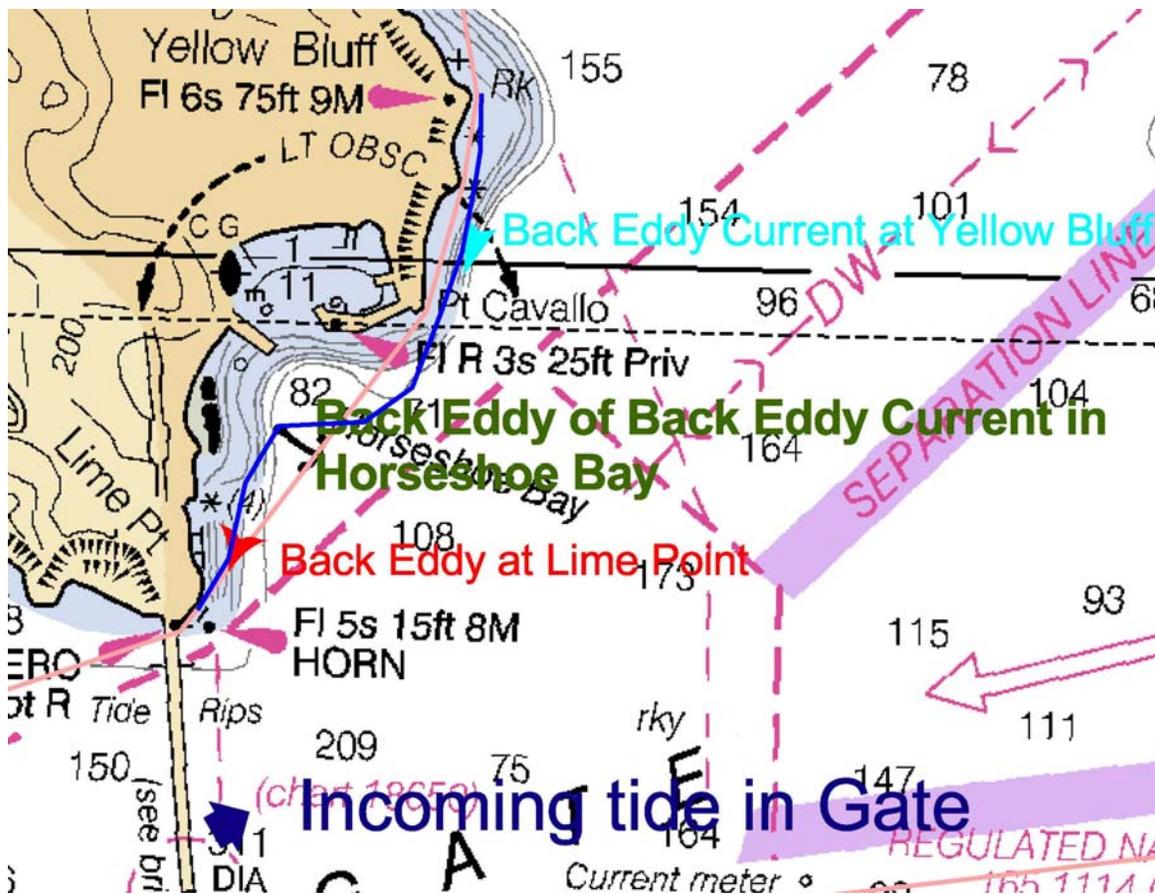
The 2004 Surfski Nationals on September 18 had a wonderful course with plenty of currents to read and exciting conditions in the open ocean. As the only OC2 mixed, Cathie and I would have to use to currents to maximum advantage if we were going to be even close to our major competition, Lance Kakalia and Junior Wright in an OC2. This article explains what we looked for and how we used the currents to stay closer to Lance and Junior.

By looking at a current table, we knew that slack tide (no current) at the Golden Gate Bridge was projected for 10:28 with the race scheduled to start at 11:00. The projected incoming tide would maximize at 1:33 pm at a speed of 3.2 miles per hour. We also guessed that the water in Richardson Bay and Raccoon Strait would still be going out until some time after the race started. Figure 1 gives an overview of the Bay and the course, which is marked in red. While warming up in Richardson Bay, we noticed the water was flowing out to sea by looking at the eddies that formed around boats and buoys. Since there were over 100 boats in the race, and we would be in the back of the pack, we knew that we could not read what the currents were doing for at least 15 to 20 minutes after the race started. The boat wakes would be so chaotic that while chances for surfing would exist, there would be no chance to read which way the water was flowing.

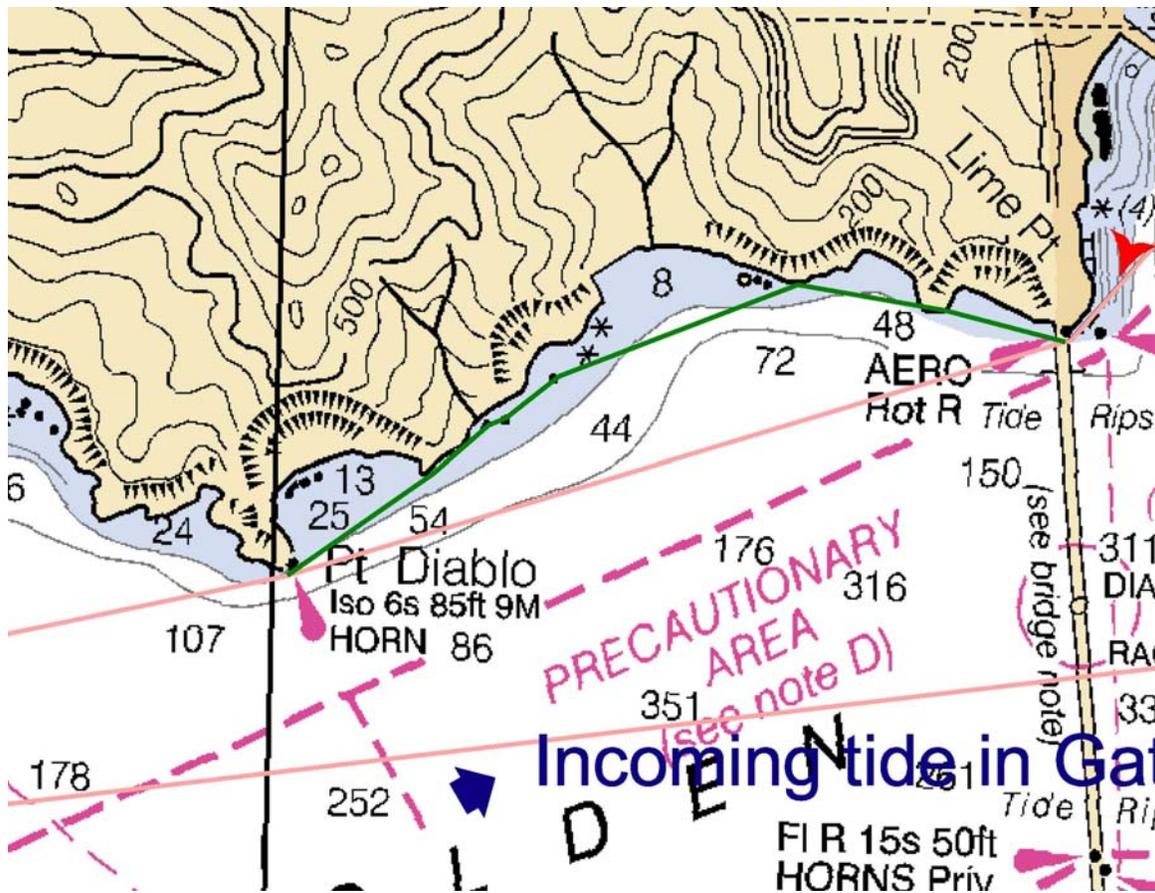


Our first chance to read the water was at Yellow Bluff, just north of the Golden Gate. There we noticed that the water was still flowing out to sea. An eddy formed next to shore off the end of Yellow Bluff so we decided to stay away from shore. We knew the eddy was there because the whirlpools and bubble line that formed at the point and differences the wave patterns next to shore as compared to further out. Waves do not cross eddy lines without changing. On the ocean, this is an excellent indicator of where the current changes and one should always ask why when one sees a big change in wave patterns.

The water was flowing out towards sea at Yellow Bluff because the water flowing through the Gate would form a back eddy where the Bay opened up. The incoming water is shown in dark blue on Figure 2. The back eddy current at Yellow Bluff is shown in light blue. At Point Cavallo, we noticed that the back eddy (blue) created its own eddy inside of Horseshoe Bay. See the green arrow on Figure 2. Once again, the bubble line and whirlpools told us where the eddy line was. We also noticed disorganized waves partway across Horseshoe Bay. At first we did not understand what was happening with the disorganized section, but decided to swing further out to stay in the back eddy current. Junior and Lance, our only competition in OC2, went straight from Point Cavallo to the north tower of the Golden Gate Bridge at Lime Point. They cleared Point Cavallo about 200 yards ahead of us. We swerved wide to stay in the current. As we got closer to Lime Point, we noticed that an eddy had formed behind Lime Point. The disorganized section in the middle of Horseshoe Bay was the area between the two eddies. The Lime Point eddy is shown in red on Figure 2. Once we passed the disorganized section, we decided to swing close to shore to take advantage of the eddy behind Lime Point. Our route is shown by a blue line on Figure 2. By the time we reached Lime Point, we were even with Junior and Lance. While rounding Lime Point, we stayed right next to shore, about 3 feet from the rocks. Junior and Lance were about 10 feet further off shore from us and paddling into a strong current. By the time we rounded Lime Point, we were about a boat length ahead of them.

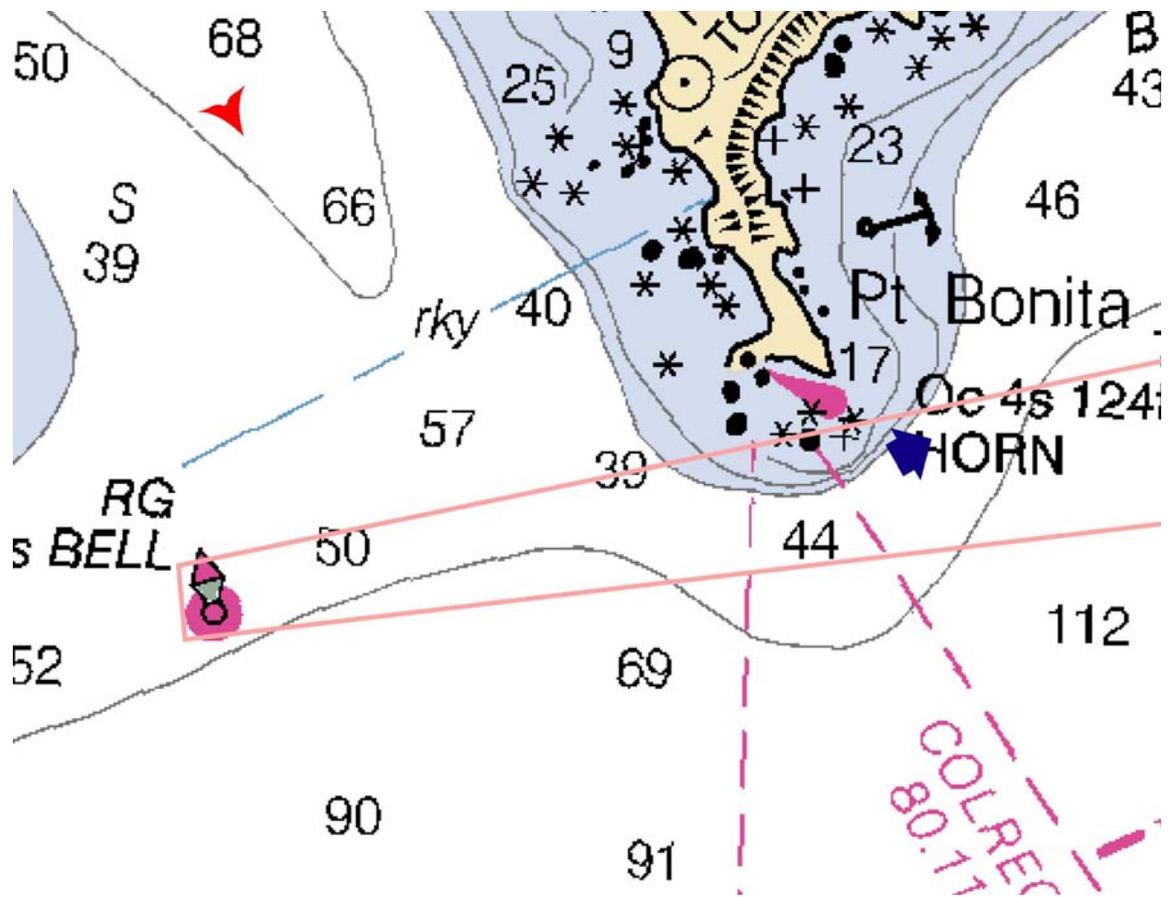


Between Lime Point and Point Diablo, we continued to stay close to shore. The incoming tide, shown as dark blue arrow in Figure 3, formed eddies behind each of the small points and rocks between Lime Point and Diablo Point. Each eddy gave us a slight boost compared to the boats further out. The peach colored line on Figure 3 measures the direct route, which is 1.18 miles. The green line measures the route we took, 1.26 miles. Although we traveled about 140 yards of extra distance, we came out ahead because we were not bucking a 2 to 3 mile per hour current. Unfortunately, Junior and Lance noticed what we were doing and followed us after we passed them a time or two. Where we could not take advantage of the currents, they would pass us.



From Point Diablo to Point Bonita, we figured that swinging inside would not make sense because following the shore was so much longer than going straight. The increased distance traveled would not overcome the reduced current. We did, however, aim shoreward of Point Bonita. We did this because we wanted to catch the eddy near Point Bonita, and this made the ride smoother. The ocean swell was several feet high and coming straight at us. The swells were tall enough and steep enough that the boat would slam onto the backside of many waves and slow us down. By taking the waves at an angle, we could keep our speed up, get close to where we wanted to go, and stay drier.

As we neared Point Bonita, we noticed a long eddy forming off of the furthest south rock island. It formed consistent with the current flowing into the Gate, as shown on the blue arrow in Figure 4. The rock is the black dot that the peach colored line crosses just south of Point Bonita. We passed to the south of the rock, and then headed to the turn buoy about .7 miles out to sea. We failed to realize that the current off of Point Bonita was moving southeastwards, as shown on the red arrow in Figure 4. If we had spotted how the current was moving past the turn buoy, we would have passed to the north of all three rocks off of Point Bonita.



The water on the 0.7 mile trip to the turn buoy was chaos. The ocean swell was coming from the west by south west, the wind waves from who knew where, and the bounce was from the cliffs just north of Point Bonita. No matter what one did, it was wrong. We must have thrown 10 braces each trying to keep the boat upright and/or us on the boat. At one point, we noticed five swimmers in various states of disarray and trying to re-mount their skis. Many of the skis had completely misjudged the current at the buoy. When ferrying across a current, it is almost always better to make most of your correction earlier, rather than later. If you correct later, you have to paddle directly upstream. Since the current past the buoy was about four miles an hour, a boat closed the gap at about two miles per hour. Even though we did not start ferrying early enough, we did manage to pass a slew of skis before the turn buoy.

As we rounded the buoy, the broadside ocean swell and the general chaos of the wave patterns tossed Cathie off of the boat. After fetching Cathie from the water, we headed straight for the south side of Alcatraz. While paddling inland, we noticed that the wave patterns were smooth beneath us, but turned confusing about 100 yards ahead. We then remembered the direction of the current past the turn buoy and realized that this was the eddy line of the southeastward current past Point Bonita. By heading further south, aiming almost to the south side of the Golden Gate Bridge, we were able to avoid lots of rough water, and maybe even paddle in faster currents. Once we passed the eddy, about even with Point Diablo, we aimed for the middle of the Gate. As we went under the

Bridge, Lance and Junior had caught up to us, but were even closer to the south tower of the Bridge.

An eddy had formed on the south side of the Gate. Since the current was headed east by northeast as shown on the blue arrow on Figure 2, the eddy line also swerved northwards into the Bay. Lance and Junior, and several skis, miscalculated this and lost several hundred yards on us when they entered the eddy on the south side of the Gate. They did not pass us until we had rounded Alcatraz and were well on our way back to the finish in Richardson Bay.

Overall, we did better than we should have. Using the currents helped us tremendously. Lance and Junior would have beaten us by several minutes on a course where currents were not so important. Instead, we were less than one minute behind them.

I always watch for currents, even on Lake Natoma, where most of the currents are less than one mile an hour. This is second nature to me since I was a slalom paddler, where an error of a millimeter could make the difference between first and fifth place. I use it now to make my paddling easier and improve how I do. It is also a challenge. Happy paddling.