## America's Cup Runneth Over

The 162<sup>nd</sup> anniversary of the America's Cup Sailing Event is now over. You may have seen news about that, because of the huge upset victory of a boat called "Oracle Team USA", financed by a consortium led by Larry Ellison, the billionaire boss of Oracle. Most of its sailors were from former colonies of the British Empire, but Larry's money and location makes it an American boat. That boat raced a best-of-17 races against a boat called "Emirates Team Zealand" with New Zealand sailors and you-guessed-it monetary backing.

With few exceptions, the America's Cup has been raced in conventional sailboats dubbed "monohulls", that drag a heavy lead keel underneath to ensure stability afloat. When the forces of wind and water start to push them over, they avoid capsize by the pendulum effect created by the weight of that keel. The early Polynesians had a radically different approach to sailing. They used outriggers, i.e. floats that extend from both sides of the hull they rode in, creating a wide structure that resisted tipping, without need for a heavy "lead mine" dragged below the boat. They were light and hence fast, but commercial sailing was dominated by keelboats, so sailboat racing was no different.

Still, there has been a very active, relatively cheap sailing scene created for "beach catamarans", the small, relatively inexpensive two-hulled boats dominated by the brand called Hobie Cat". The concept has been scaled up into much larger boats suitable for both live-aboard cruising as racing. At any time, the current holder of the America's Cup can decide the type of boat that will be raced next time, as well as the venue for the race. When the syndicate created by Larry Ellison initially won, he decided that the next race (just concluded) would be held off San Francisco, among large, light, and unusually powerful catamarans. Ellison felt that such high-speed races would attract a new breed of spectators previously uninterested in sailboat racing, providing advertising benefits to boat sponsors and revenues for San Francisco businesses.

Still, the vast majority of recreational cruising/racing sailboats are monohulls. Around 1990, I learned how to sail by crewing on a 40 foot monohull that raced on Lake Superior. I liked it enough to want my own boat, but nonconformist that I am, I chose to buy a relatively unheard of trihulled boat (main hull plus two outrigger hulls) produced by Corsair Marine in San Diego. These boats cost more than similarly sized monohulls, and sailing friends thought I was nuts. I flew to San Diego to test sail a boat at the factory, liked it, and negotiated a price with the owner of Corsair, a guy named John Walton. He even agreed to make slight customizations I requested, at a price he later felt was too low. Years later, I learned that John Walton was one of three heirs to the fortune of Sam Walton, the namesake of WalMart. John had more adventurous plans than negotiating prices with Chinese manufacturers, and later died crashing an ultralight experimental aircraft near Durango. So I was very pleased when Larry Ellison designated that the Cup races would be held in two-hulled boats.





...What Larry Ellison Owns

What I Own...

Obviously these boats are not shown in scale -- note the person taking up most of my port bow netting, while the large crew on Ellison's boat are all sitting on a small segment of its starboard hull!

My boat is much faster than monohulls of the same length, so I knew that the Cup boats would be far faster than their similar length monohulls. But it was still surprising to see that the Cup boats would travel at automobile speeds of 20-40 miles per hour, depending on wind speed and wind direction relative to the boat's direction of travel. A huge racing monohull would be lucky to make better than 15-20 miles per hour no matter what. The fastest I ever went in my modestly sized trihulled boat was close to 20 miles per hour. This frightened me, for if one tips over in Lake Superior, you have less than 10 minutes to avoid death by drowning and/or hypothermia.

So with much interest I started following this year's America's Cup races. The early racing was dominated by Emirates Team New Zealand, which tweaked their boat to provide more speed than Oracle Team USA could muster and was also sailed a bit more adroitly. Little doubt remained about the outcome when Emirates Team New Zealand needed only one more win among the next 8 races to wrest The Cup from Ellison and Co. But the latter never gave up. Their onshore engineers and other experts worked tirelessly to discover and implement small changes to the boat and the way it was sailed. These reversed the speed advantage that previously belonged to the other boat, and they started winning. At first this was brushed off as temporary good fortune, or attributed to tactical errors committed by Kiwis. But after 7 straight victories by Ellison's men, it was clear that they had a very good chance to win the deciding race. Public interest in the story was high enough to induce the NBC Sports Cable Network to cover the final race live on September 25. I did not have to teach that afternoon, so went home early to watch Team USA win handily. The credit for their success goes to many unseen individuals on shore, who lost a lot of sleep figuring out how to configure the boat to go faster. I suspect that

the Oracle Corporation's success also depends on a lot of unseen individuals, rather than its celebrated boss.

Sailboat racing is a sport for both athletic and brainy people. You don't have to be wealthy to pursue it, because racing occurs in all sorts of boats, most of which cost far less than a car. Marina fees and maintenance aren't cheap, but many just trailer their boats to the racing venue and do some of their own maintenance. Some of my most memorable experiences have occurred while racing, e.g. seeing awesome meteor showers and Aurora Borealis in the dark of Lake Superior. Yours could be, too.