



the Binnacle

Newsletter of the Lake Champlain Yacht Club, Inc.

Commodore: Tris Coffin
Binnacle Editor: Tony Lamb
<http://www.lcyc.info>
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**See you at Work Day
May 7, 2016**



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Commodores Corner

Hello all,

Well if it would just stop snowing, we could begin to enjoy Spring. Soon we will feel the waft of warm breezes, see leaves starting to bud, and the grass beginning to green and will feel the call of the boatyard....

Things are progressing as we head toward workday May 7. The Log is being finalized, moorings are being assigned, Bob Finn is working with Pierre to get the mooring field in place.

At the Board level, working along with the Finance Committee, one important project that we are discussing is finalizing plans for the replacement of the Butler Building. An interesting fact I learned in this process is the Butler Building dates to the 1930s or so and was actually the equipment shed for the local football team that used what is now our parking lot for their gridiron. You learn something everyday.

Well, the venerable old building has long since become inadequate for its purpose. As you know, after lengthy discussion, the decision has been made to replace it with a new, slightly expanded building. The building will provide a better place for junior sailing to store its equipment, provide a work space for the Club and access for the club diver to provide services to the Club. It will also likely include a number of lockers for club members. Currently, our crack design team of Marcel Beaudoin, Jill Burley and Doug Viehmann are developing the design for the building which will be slightly larger, but not by that much. The Finance Committee and Board are reviewing plans. We will be discussing how this progress is going beginning at work day, and perhaps continue the discussion at the opening day cocktail party, and perhaps at a special meeting if there is adequate interest. By all means please reach out to me or any Board member if you have thoughts or questions about this project. I believe we are heading toward a worthwhile, reasonably priced, significant improvement for our club.

Well, that's all for now. We will be sailing soon! (if it ever stops snowing).

Tris

Harbor Soundings - April 2016

As incoming Harbormaster, I want to acknowledge the excellent leadership of Joss Besse, in managing and enhancing the operations of our harbor over the last three years. While a member for almost a decade, there is still much I have to learn, and, assuming I am not alone, the Binnacle will be used to point out key facts that are helpful for all to know.

As yacht owners typically aspire to bigger, faster, better craft, some may be disappointed to know that there is a 45 foot limit on boats that they can moor at LCYC. Our mooring field was planned with the expectation that no new boats would be over 45', thus swing radii and block locations are set up accordingly. The few exceptions to this length rule are grandfathered.

Each mooring is assigned depending on: boat specifics including length and draft; location specifics such as depth, and exposure; and availability. In addition to managing the mooring waiting list, we receive requests for location changes. While every effort is made to accommodate all member requests, the process of assigning moorings is complex and may not always work out to the complete satisfaction of all. For those, hopefully rare, cases I apologize in advance.

As stated in article V of the Club LOG, a member who ceases to use his/her mooring for two years will have the assignment revoked. This is to allow members on the waiting list to moor their boats at LCYC. Members whose moorings are revoked, may re-apply for a new assignment by being placed on the waiting list for the following season. Waiting list seniority is based on the individual's original date of membership in good standing.

Article V also makes clear that each member is the owner of the mooring tackle attaching his/her boat to the assigned block. And the integrity of that tackle is the responsibility of the member. Pierre LaRocque is an independent contractor, hired by the club to commission and de-commission all moorings. He inspects moorings throughout the season and, if a section is deemed inadequate, he replaces it and invoices the member directly. His priority is to correct a potential problem before it becomes a risk to other boats in the harbor. The club has no role or responsibility in transactions between Pierre and members.

Our policies and practices are informed by an overriding concern for the safety and security of our members and their assets, and the long term stability of our club. I welcome the input and advice of all members and look forward to serving the LCYC community.

Best regards,

Bob Finn

Harbormaster

The LCYC Dock's electrical systems – what every member needs to know!

Do you enjoy swimming in Lake Champlain? Do you swim from the main dock of LCYC? Would you hold an operating toaster while you are in your bathtub at home?

Almost everyone enjoys a good dip in the lake, in July and August if not now. Most of us know that we don't permit swimming on the main dock, but few of us stop to think about why. It is not because we are concerned about getting hit by a boat or the launch, although that is reason enough. It is due to a phenomenon unique to freshwater marinas called electric shock drowning. And I hope it is safe to assume that no, you would not grab a toaster while enjoying a bath!

Over the years, LCYC has attempted to ensure that the electrical service that we provide on the dock is safe and convenient. It is intended to provide temporary power to members' boats so that they may perform maintenance and repairs, and charge their batteries periodically. Many of us find that this amenity, while not used very often, is very helpful!

Supplying electrical power to a waterfront requires some precautions due to the nature of how electricity works with water. In particular, when electrical systems are in close proximity to people swimming in freshwater, there is a high potential for *Electric Shock Drowning (ESD)* if the system is not installed properly or there are failures in the vessels electrical system.

Most people, myself included until recently, assume that the risk of electrocution would be much higher in salt water than it is in freshwater. It is well known that salt water conducts electricity far more readily than freshwater. But the risk to swimmers in fresh water is not electrocution in the traditional sense. It is electrically induced paralysis, resulting from current flowing through the swimmer's body precisely because the human body, with its high salt content, is a much better conductor than the fresh water that surrounds it.

If a dock's electrical system is not equipped with adequate ground fault protection and there is a wiring defect on the dock or a vessel plugged into the dock, the water will act as a return path to ground for stray current. Fresh water has a high resistance to electrical current, so the current will be small. However, it takes less than 10 milliamps to cause paralysis in a human, and 60 milliamps will typically induce heart failure. If a swimmer comes between the source of current in the water (say, a bronze through hull fitting on an improperly wired boat), and the dock does not have adequate ground fault protection, the current in the water will flow through the swimmer, likely incapacitating them.

Lest you think that this is a hypothetical problem, recall that in the summer of 2010 the city of Burlington narrowly averted a tragedy when two boys were incapacitated when a powerboat made a faulty connection to the City's electrical outlets. Only quick action from the father and the marina staff prevented a multiple victim drowning event.

<http://www.rutlandherald.com/article/BT/20100711/THISJUSTIN/7110367/0/BENNETT>

So what can we do to ensure that no one ever falls victim to ESD at LCYC? First, don't swim around the main dock. This goes for any other dock with AC electric power on it. If it has AC

power on it, you shouldn't swim from it. Second, the club must install protection to ensure that if a ground fault is present, the system shuts itself off. This is done using GFCI outlets or circuit breakers, or by using ground fault sensors and shunt trips on the breakers. Finally, if you plug your boat in, and the GFCI or breaker trips, have your boat's electrical systems checked out by a professional electrician. The problem is usually easy to find and isolate.

The club installed GFCI breakers in the electrical panel at the head of the dock last year. Unfortunately, these caused numerous nuisance trips, and most of them were removed. This modification was well intentioned, but GFCI's will not work with such a long run of wire after them in a moist environment, they will nuisance trip to frequently. We plan on upgrading our electrical system this spring, and plan on using GFCI's at the pedestals, along with a shunt trip at the panel. If your boat trips out the pedestal, you likely have something wrong with your system that needs fixing. But it will only trip out your circuit, not the whole dock. If something fails in the dock's wiring, the shunt trip on the panel will cut power to the whole dock until the problem can be resolved. This system should keep the power flowing to our boats, but prevent it from flowing into the lake.

Even with all this protection, your first defense is prevention. Swim from the junior sailing dock! Hot days and warm waters will be back before we know it. Enjoy them safely!

Junior Sailing

By Walt Marti

Registration's are currently underway for the 2016 Junior Sailing season – while a few sessions are already full – there are still many openings for this summer. Go to the Junior Sailing page on the LCYC website for additional information and the link to registration. <http://lcyo.info/junior-sailing/registration>

Also, please let your friends and neighbors know about this great opportunity. Many seem to think our junior sailing program is only open to LCYC members.

I am happy to announce the staff for 2016. We are fortunate to have four of our five Instructor's returning and a very talented young woman as our fifth.



Bridget Murphy, returns for her second summer at LCYC and will be the Head Instructor. She graduated from UVM as a Secondary Education and English major and is now working towards her Master's in Elementary Education at Bridgewater State University in MA.

Bridget grew up junior sailing, sailing in high school, taught sailing at a boating center in New Bedford, Massachusetts and sailed for UVM. While on the sailing team at UVM she was named an ICSA All-American crew for the 2014-2015 seasons.

Bridget is thrilled to be back in Vermont this summer



Sydney Connor, is very excited to join the LCYC Jr. Sailing staff. She grew up sailing in Duxbury, MA, joined the high school sailing team and raced mostly 420's and FJ's. In 2012, Sydney sailed in the high school nationals held in Seattle and then became the high school sailing co-captain in 2014.

She currently sails for UVM and will be the vice- president of the UVM sailing team in the fall where she will be a junior studying nursing.



Noah Allen, returns for his third year as an LCYC Instructor. He grew up in Shelburne, VT, attended LCYC Jr. Sailing as a camper for 5 seasons before working as an instructor in training for two years. Noah sailed both spring and fall on the Vermont high school sailing team for 4 years, spending time traveling throughout New England attending regattas

Noah is student at Wheaton College in Massachusetts where this fall he will be a sophomore studying Biochemistry. He is also an avid skier, mountain biker and windsurfer.

Charlie Maitland also returns for his third year as an LCYC Instructor. He is from Shelburne, VT, and will be a Sophomore at Clarkson University majoring in Engineering Management.

Starting at the age of 9, Charlie did LCYC Jr. Sailing for 8 years, and was also on the Northern Vermont High School Sailing team for 4 years. He has done lots of sailboat racing outside the high school team and when there are strong winds, he likes



windsurfing and sailing Hobie Cats for a good thrill ride.

Charlie trains for nordic skiing year round and will be roller skiing or biking to work almost every day, so give him a wave (and the lane!) if you see him



Ian Campbell returns for his second year as an LCYC Instructor. He is from Shelburne VT and I'm currently studying Entrepreneurship at Northeastern University in Boston.

Ian was also on the high school sailing team all 4 years, is currently on the Northeastern Sailing Team, and is looking forward for 2-3 more years racing collegiately.

Ian was an LCYC Jr. Sailor for as long as he can remember . He spends every summer at LCYC in some capacity, and loves sailing on Lake Champlain. Outside of that, he races Viper 640s along the East Coast.

Hidden Treasures in Plain Sight

By Bern Collins, LCYC Historian, with Past Commodore John Dupee

At the January Change of Watch, Past Commodore John Dupee (1996-97), told me he wanted to share an interesting story about the transition period when members voted to demolish the 1960s era clubhouse and build a new one, which was completed in 1998. After our arrival at Amelia Island for our two-month visit, he sent the historical details, as promised, in the following e-mail:

“At a membership meeting in September 1997, the club voted by overwhelming majority to build a new clubhouse. Like many transitions in Vermont, it was hard to let go of the old in favor of the new. Because of the understandable nostalgia for the old clubhouse, there were many suggestions offered that would preserve portions of the old clubhouse for use in the new structure. Among those acted upon were: 1) preservation of the stones from the old fireplace to be used in construction of the new fireplace; 2) preservation of the main laminated carrying beams of the old clubhouse to be used in the new building.”

Many of us knew that the stones were used to build the new fireplace and that the carrying beams were cut and used as shelving in the kitchen and the trophy case. Few of us, however, were aware that the shelves were “trimmed out in [African] mahogany and finished with spar varnish.”

What was the source of the African mahogany? In his e-mail, John wrote that in 1995, the *USS Savannah* was being decommissioned in Norfolk, Virginia, where his eldest son, Jed, was a member of the decommissioning team. When I e-mailed John that we were at Amelia, he replied that Jed, after retiring from the Navy, was now living in nearby Yulee. After a few phone calls, Jed, Peter, and I met at Starbucks, where Jed shared some further details about how the African mahogany was transformed from yellow-painted guard rails on the *USS Savannah* to usable planks that ended up in Vermont.

Jed recalled that in 1992 the *USS Savannah* (1970-95), a “Wichita Class replenishment oiler,” docked in Cartagena, Spain, which has a large naval shipyard. This was where the mahogany was installed as guard rails that protected the winches from the forklifts which are used in the refueling process. He later e-mailed the following pictures of these guard rails which were painted yellow, and then later yellow with black stripes: “Shots of transfer deck arrangement, looking aft toward the cargo elevator. This perspective uses only 20% of the lumber used on the whole transfer deck.”



John had written that Jed “scratched through the yellow paint with a pen knife and discovered the African mahogany lying beneath.”

Jed recalled that when the Navy decommissioned the ship, little thought was given to what was being tossed over the side. Having learned the value of different types of wood from his father, Jed was able to secure some of the guard rails, which were designated as “decommissioning gifts,” thus saving the mahogany from the dump!

In John’s e-mail, he describes how the mahogany was taken to a mill shop and cut into “manageable planks about eight to ten inches in width and about twelve feet long.” These were stored in a self-storage unit until the “concept of a new LCYC clubhouse began germinating in Vermont.” Jed said that in the summer of 1997, two Chase Moving & Storage drivers picked up the planks on their way back from North Carolina. Once in Vermont, John “transformed [these] into mahogany trim for the new clubhouse, a mahogany keystone over the entry, and a mahogany mantel for the new fireplace.” Jed noted that both he and his dad have tables made from the once yellow and black guard rails.

Jed also has a plank from the *USS Savannah*:



John's e-mail concludes: "So, the present clubhouse not only incorporates pieces of the old clubhouse, it also incorporates material from a US Naval vessel—adding to the 240-year US Navy presence on Lake Champlain and at LCYC."

After serving 22 years in the Navy, Jed retired in 2006, then got his pilot license in Puerto Rico, and is now one of three Kings Bay Pilots who are required to guide submarines back and forth—"Never go into a strange place on a falling Tide Without a Pilot." In 2007, he moved to Florida and now lives in Yulee with his wife and three daughters. In recognition of his unique contribution to LCYC's new clubhouse, the Board of Governors designated Jed as a one-year honorary member in 1998.

As May workday approaches, we can look forward to taking a new look at what we now know is African mahogany—the shelving trim, the keystone, and the mantel—hidden treasures in plain sight. Who knew the Navy would use this elegant material for guard rails, hidden beneath yellow and black paint, to be discovered by a guy from Vermont scratching with his pen knife? Thanks again, Jed!

Bermuda Bound in 1977

By Dale Hyerstay

For the Charlotte News, Vol. L, #15, March 6, 2008

In the January 24, 2008 issue of The Charlotte News Michelle Jordan wrote about helping her father, Ron Cevrier, sail his boat back from Bermuda following his participation in the 2007 Marion-to-Bermuda race. In this article Dale Hyerstay gives an insight into many aspects of the race itself.

Why do people race sailboats? Why do people play chess, or rugby, or croquet? There are answers to those questions, but you will probably get a different one from each person you ask. As for sailing, I can tell you this: if two sailboats are out for a pleasant recreational sail, the odds are high that the crew on each will casually begin to tweak the set of their sails to try to gain speed and distance on the other. And don't for a second think that this is just a guy thing! Why does this happen? Who knows? The reason doesn't really matter. Nor does it matter which one triumphs, nor even how long the contest lasts. Somehow that brief encounter is satisfying to both, and winning or losing is not usually an issue because that was never the objective.

In most amateur encounters what is longest remembered is the tussle itself, not who won or lost. The Marion-to-Bermuda Race embodies that philosophical tenet.

Racing to Bermuda has been going on since at least the 1800s. The modern remnant of that early racing is the Newport-Bermuda Race, run in even-numbered years. It had its 100th anniversary race in 2006. The main focus of that race is high-level competition on high-tech boats designed mostly for racing, sparsely outfitted below to reduce weight, and requiring highly skilled and experienced sailors, some of whom are paid. Use of spinnakers is allowed, and boats are driven hard in all conditions. The use of electronic navigation aids is permitted. The objective is to win. Period. If you do not fit that mold, this is not the race for you.

Over the years a lot of skilled offshore sailors were left on the sidelines, so to speak. Especially those who liked to race some, but whose main focus was offshore cruising, and whose boat was outfitted accordingly – comfortable bunks; an enclosed head or two; a galley outfitted with stove, oven, and perhaps refrigeration; a dining area; teak doors, cabinets and trim; large and full water and fuel tanks. Such boats are heavier than flat-out racing boats, but are fully seaworthy. Crews are likely to be family and friends, many of whom are skilled club racers. And although most such sailors are competent at sailing with a spinnaker in ordinary weather conditions, flying one in heavy Gulf Stream weather and seas would be excessively risky and could be disastrous.

In 1975, W. David Kingery proposed a race to Bermuda for cruising yachts and family sailors. It would take place in odd-numbered-years, alternating with the Newport-Bermuda Race. Kingery was himself a skilled and seasoned ocean cruiser and racer. He had just completed a single-handed voyage to Bermuda, and the idea occurred to him during that trip. In Bermuda he discussed it with key members of the Royal Amateur Dinghy Club, the long-time Bermuda host of the Newport-Bermuda Race. Kingery was a member of the Beverly Yacht Club in Marion MA, and was on the board of the Blue Water Sailing Club (BWSC), and he broached the idea with members of those clubs too. All three groups were enthusiastic endorsers of the need for this type of race and joined him in creating the Marion-Bermuda Cruising Yacht Race.

The inclusion of the BWSC was particularly important. It owns no real estate; its sole purpose is to organize east-coast summer near-shore cruises, mostly to Maine, Canada, and the Cape. It also organized a few races. Members come mostly from New England, but also from other parts of the east coast and Bermuda. Many had no experience racing to Bermuda, but were eager to go as part of a carefully planned and organized effort that included pre-race training and education. Going back to my earlier comment about the philosophical core of the Marion-Bermuda Race, they were interested primarily in the process of going to Bermuda – the ‘race’ part of the venture was merely a convenient excuse. Just using their seamanship and the teamwork of family and friends to successfully endure the test of getting there would be reward enough.

There are two prime features of any race or voyage to Bermuda. The first is that Bermuda is only 24 square-miles of land mass, a mere dot on the chart, and finding it 645 miles out in open ocean is not easy, especially in the nasty weather and current and seas that are the hallmark of the Gulf Stream. Also, Bermuda is fully ringed by a shallow reef, with the only access via a blasted and dredged cut on the east side, near St. David’s Head, which is where the finish for all Bermuda races is located. The ability to use electronic navigation aids to find Bermuda, and the finish line, would be a monumental benefit to the navigator of any boat, and especially one that is racing.

But Kingery had a prideful bias. He believed that his cruiser-racers should be held to a higher test than the racer-racer crowd of the Newport-Bermuda Race. He believed strongly that the ability to navigate well without electronic aids, using only a sextant and the sun, moon, and stars, was the mark of a competent offshore sailor and so should be an integral part of his new cruising yacht race. Thus, the skill of the navigator should be as important, if not more so, than the skill of the helmsman. So, use of electronic aids was forbidden until 50 nautical miles off Bermuda. The latter allowance was to ensure that all aids were available once a yacht was close enough to bring the reef-hazard into range. Those reefs are unforgiving; running aground on one usually means losing your boat.

The rules of this new race required that the crew include a person experienced in celestial navigation. For such a navigator, charting a course to Bermuda, compass heading 165 degrees from the mouth of Buzzards Bay, should be academic, right? Assuming the navigator has a fully accurate chronometer, that is basically correct, provided the skies are clear. If he or she can get a sextant shot of the sun at sunrise, high noon, or sunset, then an accurate latitude position line can be determined. Determining the longitude position, one’s location on the latitude line, requires an appropriate celestial shot at night. But if cloud cover prevents either the latitude or longitude shot, then the present position can only be determined deductively by what is called ded/dead reckoning, by starting at the last known or deduced location on the chart and extending it based on the speed and direction of the boat over the intervening time. And since waves, wind, and current can cause the speed and compass heading of the boat to vary continually, especially in the Gulf Stream, the average speed and heading over several hours can only be estimated. There are stories of boats sailing past Bermuda a little bit off to the east or west and never seeing it because of the inherent inaccuracies of dead reckoning and because of cloud cover preventing access to the corrective information provided by celestial sights.

The second prime feature of any race or voyage to Bermuda is the Gulf Stream. It is a complex phenomenon, but in simple terms you can visualize it as a huge elliptical deep river of clockwise-flowing warm water that heats up in the tropical lower part of the North Atlantic, flows westerly past the north side of the Caribbean islands, bends northerly between the Keys and Cu-

ba, flowing close along the arc of the coasts of Florida, Georgia, and North Carolina. At Cape Hatteras the coastline jogs sharply northerly while the Stream continues its bend easterly toward the North Atlantic, where it flows past Greenland toward Europe. As it passes the west coast of Europe it bends southerly then southwesterly in its return to the lower North Atlantic.

Ponce de Leon was the first to record an awareness of the stream's current, noting in his log on April 22, 1513 that they could not proceed forward, but backward, and that the current was more powerful than the wind. One Anton De Alaminos, chief pilot aboard de Leon's ship and onboard with Columbus in his last voyage, is credited with the discovery of the Gulf Stream because he was the first to take advantage of it when in 1519 he set sail for Spain from Vera Cruz, Mexico, following the Florida coastline northward before turning eastward to Europe.

Benjamin Franklin was the U.S. Deputy Postmaster General, and while in England in 1769 he heard complaints that westward mail from Europe to America took weeks longer than eastward mail coming from America to Europe. He learned from Timothy Folger, a Nantucket whaler, that by sailing westerly the English ships were bucking a strong current. Franklin suggested the name "Gulf Stream" for that current, and in 1770 he and Folger published the first map of it to assist mail ships in making speedier passages. In subsequent crossings Franklin took and recorded water temperature readings, noting among other things that the western edge of the Stream is cooler than the eastern edge, and that the temperature cooled as the Stream flowed east, reasoning that the stream gradually slowed as it flowed northeasterly.

In U.S. waters the stream is generally 40 to 50 miles wide, has a current flow of 2-7 knots, and a core temperature of around 80 degrees. The current flows along the U.S. coast at 8.5 billion gallons per second.

The current is fastest 30-40 feet below the surface. The flow is not linear, but meanders back and forth, wildly so in some places. Along the edges of the flow are cold eddies that rotate counterclockwise, and warm eddies that rotate clockwise, each at current speeds of 2-7 knots. Records of the Gulf Stream configuration over the last hundred years or more, on file at the MIT library, show that the daily locations of the meanders and eddies are relatively stable over time but do move around some, complicating prediction of its configuration in advance of any given day.

The straight or rhumb line course from the mouth of Buzzards Bay to Bermuda is 165 degrees magnetic and crosses the linear course of the Gulf Stream at a near-right angle. At the skippers' meeting the day before the start of the race each boat receives that day's government information on the section of the stream between Buzzards Bay and Bermuda. The navigator's daunting task is to determine the best course through the stream considering probable locations and speeds of the meanders and eddies a day or two later when the boat will begin to encounter them. By entering the proper side of a meander or eddy the boat can gain the trust of the current; a miss-guess could result in crossing head-on against an adverse current.

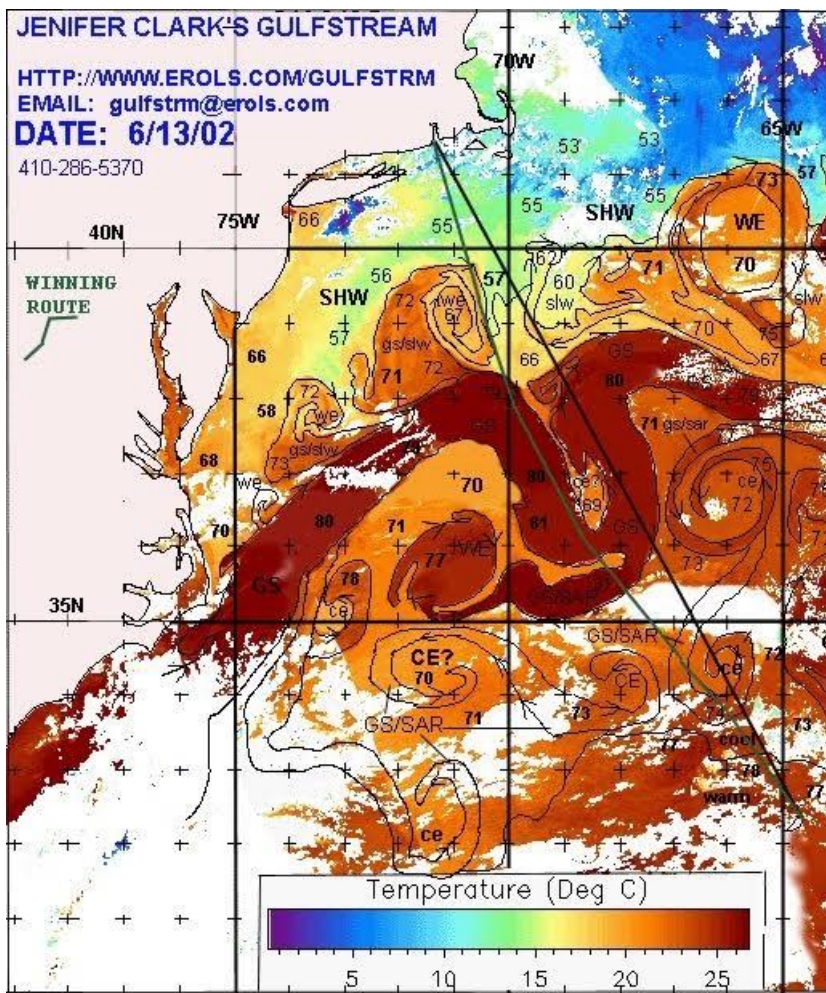
The accompanying graphic from Jennifer Clark's Gulfstream website shows the winning route of the overall winner of the 2001 Marion-Bermuda Race. Note that, had the navigator followed the rhumb line the boat would have smacked head-on into the full thrust of the current of the meander on the right, and they would have been bucking the current in that meander for 120-150 nautical miles. By sailing a course about 10° to the right of the rhumb line, they first gained the thrust of a long arm of a clockwise warm eddy, then entered a meander at the point where it was bending southerly directly in-line with their course, giving them the full thrust of its current. As they were about to leave that meander they altered course to head directly on to Bermu-

da. They briefly had a cross-current passage through a counter-meander, but then picked up a mild favorable thrust by riding the curving arm of a counterclockwise cold eddy. From there it was normal sailing to the finish on the east end of Bermuda. The striking thing about that boat's successful course choices is that their navigator had to decide at least two days in advance where those meanders and eddies would be when they expected to get there. Magnificent. But he had the benefit of satellite imagery beforehand that was not available when Kingery created his race.

The first Marion-Bermuda race was run in 1977. I was asked to go in it as a watch captain; I brought along a fellow Vermont sailor, Chuck Bowen. Our boat was a 42 foot Chris Craft Commanche, one of the sweetest boats I have ever driven. We had a crew of eight – my friend the owner/skipper, the navigator, and two watches of three each. The skipper was a board member of the Blue Water Sailing Club, and had offshore experience. I had raced with him many times, including from Boston to St. John NB, but I admit to harboring a bundle of anxieties about doing this race. Imagining for weeks beforehand what it would be like sailing 645 miles through nasty Gulf Stream waters to that tiny dot in the ocean in a small boat will do that to you. What if, too late, I discovered that I did not have the will, or the stamina, or the stomach for this perhaps-grueling venture? We had all heard stories!

A packet of materials had been mailed to boat skippers weeks in advance. Sailing resumes for all crew had to be submitted, the boat and its safety gear had to be inspected. The day before the race there were mandatory meetings for the skipper, navigator, and one crewmember about the start, the course, the Gulf Stream, the reef, the finish, and safety issues. Witnessing the careful attention to safety details should have had a calming and reassuring affect, but it had the opposite – being made aware of all the dangers does not calm one's apprehensions.

At 1000 on a Saturday in late June the race began in the open waters off Marion harbor, with starting duties handled by the Beverly Yacht Club. The 104 boats had been assigned into 12 classes of about 8-12 boats of similar size or crew – family, double-handed, or standard like ours. Each class started separately, ten minutes apart. Buzzards Bay is oriented north-south, and



the wind was from the southwest about 15-18 knots, so we had to beat into the wind, zig-zaging back and forth in the bay, for five hours just to reach open ocean, where we settled onto the navigator's course toward the favorable meander. We were hard on the wind, meaning we were sailing as close to the wind as soft sails will allow.

Interestingly, even though there were 105 boats out there, by late afternoon only a few were still in view. For most of the rest of the race we would see no other boats. From eye-level in the cockpit, about five feet off the water, the horizon is only five nautical miles away, and beyond that one's view is limited by the depth of the waves and the curvature of the earth. Our total world was only open ocean ten miles across for days and nights on end, and because the perspective doesn't change there is no sense that one has gone anywhere. At the dock our boat seemed big; at sea it felt very small – and so did we.

About midnight, in heavy seas near the edge of the Gulf Stream we reached the point where the navigator's plan called for us to change course to head into the meander at the proper spot. To get onto that heading we had to tack, meaning we had to change from having the wind come from off our left bow, to having it come off our right, a turn of about 90 degrees. The boat had running backstays, one each attached to a corner of the stern at one end and a point high up the mast at the other end. The one on the windward side is tightened to help offset the wind load on that side of the mast. The one on the unloaded leeward side is left slack. When we were on the heading before the tack, the slack running backstay had been allowed to get in front of the spreader on that side, unseen in the pitch black night. The spreaders are wing-like struts that are perpendicular to the mast a bit over halfway to the top of the mast. Wire shrouds, one on each side, pass from the deck over the ends of the spreaders to the top of the mast, and the spreaders thus provide sideways support for the middle of the mast. If either one breaks, the mast will likely break at that point.

I was steering, and when the call came to tack I turned the bow of the boat into the wind and the heavy on-coming waves. As the sails came across to the new side and the crew member responsible for the running backstay began to winch in the formerly slack stay that had gotten in front of the spreader, we all heard a sharp "crack" as the right-side spreader broke when the runner tightened on the wrong side of it.



"In the Gulf Stream"

Fortunately, we were only halfway through the tack, so I immediately turned the boat back to its original heading and prevented the mast from breaking. The sails were slack from our tack, so we slogged in place while we rigged a pole at deck level to put outward tension on the shroud of the broken spreader to stabilize the mast.

We were now faced with a huge trilemma: (1) The Kingery spirit would have us continue our quest with our jury-rigged brace; (2) We were only sixty miles out, so we could turn back and try to find a boatyard to replace the spreader; (3) We could abandon the effort entirely, return to shore and go home. We decided that the first option was the most noble, but was probably foolhardy because we had not yet even entered the Gulf Stream, it would take at least three days to get through it, and the full load of the hard wind and heavy seas would be on our wounded side, meaning we would probably lose the mast in the worst possible conditions and serious damage to boat and crew could result. Since we had all signed on for this venture we were not yet ready to quit, although, truth be told, this happening on our first night out did jolt our secret anxieties to a higher level. We turned on the engine, dropped the sails, and set a course for a marina in Hyannis to seek repair.

We arrived at the marina early Sunday morning. Fortunately the yard had the proper materials and a craftsman to make a replacement. By noon on Monday the new spreader was in place, and we headed back to sea, apprehensions intact. The crewman who made the mistake chose to leave the boat, and the skipper enlisted a sailor-daughter of one of our crew.

As we headed back to the Gulf Stream we all began to feel emboldened. The Gulf Stream was no longer as foreboding a mystery. We had seen it and had gotten a taste of its power, and our anxieties gradually were replaced by newly-seasoned eager self-confidence.

Our trip through the Gulf Stream was arduous. We were in high winds and steep seas, and if the helmsman was not super-sharp and did not steer to avoid it, a wave could pass under the boat leaving the front half of the boat hanging out over the trough behind the wave, and the bow section would come crashing down from six or more feet up and cleave the sea asunder – the crash would make the rigging, the boat, and everything in it shudder, sending zaps of adrenalin through those trying to sleep below. The continual spray dowsed the crew in the cockpit, and even though we wore foul-weather gear we got wet. Once hair or clothes become wet with salt water they never dry out. Bunks get wet from the soggy crew coming off watch. The Gulf Stream temperature is 80-85 degrees, so with the deck hatches closed against waves and spray, the air inside the boat was stuffy, hot, and humid. These conditions went on for three days. Eating became something we used to do – instead, nourishment was gotten from instant hot soup, candy bars, and trail mix. There was no way anyone could cook when the boat was pitching and rolling and slamming through the waves. Two of my watch got so seasick that they were bunk-ridden thereafter, so I steered for the full six hours of our next watch, from sunset to midnight. The wind was up to 30-40 knots, and the boat was heeled rail-down in waves 8-10 feet high/deep and 40-50 feet across – even in the pitch-black dark there was just enough light for me to dimly see the waves. I was alone in the cockpit at the wheel of a fantastic 30,000-pound sailboat driving hard over the crest of one wave down into the trough and up the face of the next wave in the middle of an awesome ocean river. I only slammed the boat off a wave once. The two of us alone, man and machine, were challenging the near-full power of the Gulf Stream, and we were holding our own! Awesome! Just awesome!

That indescribable experience remains the highlight of my sailing life. As I came off watch at midnight, the navigator, who had watched silently the last hour while sitting on the top step of the stairs inside the cabin hatchway, uttered but one word – “Fantastic!” He knew!

The overall anxiety, stress, hunger, wetness, and sleeplessness don't fit anyone's definition of fun, leading my Vermont friend Chuck Bowen and me to grouse to one another how miserable we were, and how instead we could be back sailing our own boats on beautiful Lake Champlain, well-fed, dry, and sleeping in our own beds! We privately vowed that this would be our first and last Bermuda race.

Eventually we came out of the Gulf Stream into beautiful azure waters and reasonable wind and seas, dry clothes, and decent meals. Seeing tiny Bermuda rise out of the sea in all its special beauty was thrilling. Once we were inside Hamilton harbor, docked at the Royal Hamilton Amateur Dinghy Club, that first hot shower was heaven. Following that we headed for the club's canopied dock-side lunch stand, ordered baskets of inch-thick hamburgers and french fries, grabbed thick slices of delicious Bermuda onions, popped the caps on a handful of cold beers, and headed for a shady table overlooking our boats and the picturesque harbor. And after a few savory bites and a quaffs of beer, what is the first thing we started talking about? To even our own puzzlement and surprise, given what we had endured for five days and the vows we had sworn to never come this way again, *we started talking about the next time!!* With some temerity, we likened our Gulf Stream experience to what it must be like to go through the agony of



Chuck and Dale entering Bermuda Harbor

childbirth, only to later start talking about having another baby. We did three more races, and crazily the same scenario happened each time but the last one, in which the winds and the Stream were mild and forgiving, as if apologizing for past miseries inflicted.

In that first race we were disqualified for having gotten outside assistance, but our skipper was called to the podium to receive the applause of the crowd and a special award for perseverance and determination. We even got to Bermuda before some boats in our class. They had sailed into a lull in the wind while we were getting our repairs, and once we reentered the Gulf Stream we drove the boat hard and managed to catch up and overtake them. All in all, it was a race none of us will ever forget; but I confess that yes, it was secretly satisfying to beat a few of our competitors.

Scuttlebutt (Editor's notes)

Had the opportunity of watching some college J-70 races at the Coast Guard Academy. It is a great venue. They have a large club house that sits on a rock near the middle of the river where they race. The starting line was right in front of you, probably 50 yards away. About nine boats, 4 legs, windward leeward, with a leeward gate. Races lasted about half hour with about 5 minutes between races.

Amazing how easy it is to figure out what a boat needs to do from 50 yards away. Suppose that is like a lot of things in life.

See you on work day.

Peace,

Tony Lamb