

Race Day Minus 1 – Thursday, 10 June 2004 – The Preliminaries

Months of preparation to participate in the 2004 running of the biennial Annapolis to Bermuda Ocean Race (BOR 2004) are now coming down to the wire. Sea Scout Ship 25 from York, Pennsylvania is an official entrant in a fleet of 35 large sailboats that will depart tomorrow at 1400 from Annapolis Roads on a 750 nautical mile race to the British Overseas Territory of Bermuda. Dawn finds our 43' Mason Cutter Ketch Kuan Yin at her customary slip at White Rocks Marina, Pasadena, MD. Skipper George Kain is attending to last minute details. Youth crewmembers Drew Brenneman, Bryon Long, Carl Chindblom, and Phil Accardo are finishing their last day of school before summer vacation. Adult advisors Steve Alexander, John Dawson, and Jim Long are getting in some last-minute work at their respective offices.

As the day progresses, the loose ends begin to come together. The boys get out of school and head for the boat. Skipper checks in at the Eastport Yacht Club race headquarters for the Skipper's briefing. Phil and his mother, Maria, are frantically driving to West Marine to get a proper inflatable PFD for Phil. Eventually all but Steve and John assemble at the Eastport Yacht Club for a pre-race party. We are joined by Sharon Stably, a free-lance photographer for the York Dispatch, our local newspaper. Since as Sea Scouts, we can't drink on duty, we cut the party short and head for the boat, joking that we will have the advantage of likely being the only sober crew at the starting line tomorrow.

By the time we get to the boat, darkness has fallen. We turn on the spreader lights and begin the process of stowing tons of food, beverages, personal, and foul weather gear. It seems like an impossible task to fit everything into a suitable place, but progress is made. Eventually, we are able to secure shore power, coil and stow the water hose and shore power cable, and at 2206 we back out of our slip and the real adventure begins.

Onboard are race crewmembers Skipper, Jim, Drew, Bryon, Carl and Phil. We also have onboard just for the trip down to the official Annapolis starting line Sharon the photographer and Kyle and Eric, younger brothers of Drew and Bryon respectively. We will motor to Annapolis as the winds are light and time is of the essence. We'd like to get at least some sleep before the race tomorrow.

We take a depth sounding with our keel just off the Maryland Yacht Club, but no harm is done, and we head out into the Patapsco River. Sharon is busy taking loads of photos and interviewing the boys. Everybody is full of excitement. We exit the Patapsco and enter the Bay proper, heading for the bright lights of the Chesapeake Bay Bridge.

The night is clear and the stars are bright. Passing under the Chesapeake Bay Bridge at night is always quite a thrill, with the noise of vehicles passing overhead and the visual beauty of the illuminated bridge structure itself.

We enter Annapolis Roads and select a spot to anchor off the Naval Academy sea wall. At 0250 we anchor to our 45 pound CQR Plow anchor in 26 feet of water and let out 90

feet of chain. After taking cross-bearings on three landmarks to assure ourselves the boat is not dragging anchor, we all turn in for what sleep we can get until dawn.

Day 1 – Friday, 11 June 2004 – Race Day

We awoke at 0730 to an overcast day with intermittent rain. We immediately got underway for the Annapolis City Marina to pump out sewage and to fill our diesel tanks. We wanted to head off to Bermuda with as little sewage and as much diesel fuel onboard as possible. We were back at our anchorage by 0900 and commenced final gear stowage. At 1030 Brian Johnson came along side in his Choy Lee *WINDRESS*, resplendent in her new coat of paint, to offload any unnecessary gear (of which we had a lot) and to take aboard Kyle Brenneman, Eric Long, and Sharon Stabley. At 1157 the water taxi arrived with Steve Alexander and John Dawson. Our race crew compliment was now complete.

Each vessel was supposed to display an adhesive sign on the port bow with the BOR logo and the vessel's race number. Unfortunately, due to the rain, most crews including ours had great difficulty getting the signs to stick. We finally got ours on with that indispensable sailor's friend, Duct Tape.

At 1215 we weighed anchor and proceeded to join the BOR Boat Parade formation, circling the anchorage several times. The rain didn't dampen our spirits. Our support party on *WINDRESS* got some good photos. Luncheon on Kuan Yin consisted of chili on the run, as we proceeded toward the committee boat at 1330 to officially check in for the race and to receive our Bermuda customs forms. Receiving the customs forms helped remind us that, yes, we are about to head out across an ocean to visit a foreign country.

The preparatory signal sounded at 1400, and at 1405 the gun sounded to officially start the race. Not being particularly aggressive racers, we were content to follow John McLeod's boat, *TARKA*, over the line. The line itself was wide enough, but near the entrance to Annapolis Roads, all vessels had to round one particular buoy to starboard and begin heading down the Chesapeake Bay. There things got quite tight. Kuan Yin got sandwiched between two other boats, both of whom were yelling at each other and us to get out of the way. There is no brake on a boat to suddenly slam on in an emergency to let idiots go past you, so we watched incredulously as these other two boats, each weighing 15 tons or more, came charging in on our port and starboard sides respectively. With less than 12" between each other and hurtling along at 8 knots, all three of us somehow got around the buoy. Our skipper was heard to remark that he had been having visions of a serious collision and the race ending right there for us. He was heard to remark some other things, too, but these are not printable.

Once all the boats were headed down the Bay, everyone was able to relax a little, as the distances between the various boats widened. As near as we could tell, we were about 2/3 of the way back in the pack. For some reason, a boat named *SHANTY IRISH*, which was not in the race, decided to sail along to windward of us and disturb our wind. She finally turned away, however, and we continued south.

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Because the wind was from the northeast and the current was with us, all boats including Kuan Yin were making excellent boat speed over the ground down the Bay. At 1630 we deployed our Aquair Wind-Water Generator. This is a device resembling an automobile alternator. It is attached to the stern pulpit and is rotated by means of a 100' line dragged behind the boat with a propeller on the end of the line. The propeller turns the line, which turns the alternator, which in turn supplies charging current to the boat's house batteries. At least that is the theory. In our case, we soon discovered that the regulator for this device was defective, and there was no control on the amount of current it was generating. Since we were still in cell phone communications with the outside world, we called the nearest Aquair Dealer, Jack Rabbit Marine, in New England for advice. Peter, their service representative, said they would send a replacement regulator ahead for us to the St. George's Dingy and Sports Club in Bermuda, and that in the meantime, we could safely accept whatever charge the alternator put out as long as there was a load on the house battery circuit.

Dinner was served at 1715 consisting of beef stew, meatballs, marinara sauce, and "Silvia's Famous Melt-in-Your-Mouth" Biscuits. (Silvia is actually Steve Alexander's wife, who runs an elite catering service in Washington, D.C.). Needless to say, this dinner was good.

Our 2000 evening position by GPS was North 38 Degrees 18.187 Minutes, West 76 Degrees 16.952 Minutes. At 2030, as instructed by the BOR 2004 Race Communications Rules, we telephoned in our position to the Eastport Yacht Club point of contact Mr. Chan Dayton. He was not in, but we left a message on his answering machine.

At 2047, with darkness approaching, we placed safety over speed and reduced the Genoa to 90%, and began to place the first reef in the main sail. To reef a sail is to reduce its size by bundling up the foot (bottom edge) of the sail. That way there is less surface area for the wind to blow on, resulting in less heel on the boat. There is an old bit of sailor wisdom that warns, "reef early". The point is that it is far easier to shake out a reef that proves unnecessary than it is to put in a reef in the darkness of the night in howling winds. Carl got a lesson in nautical terminology as Steve insisted on explaining to Carl in nautical terms how to put in the reef, and Carl was somewhat befuddled by the strange new vocabulary. Carl persevered, however, and got the reef in eventually.

At 2117 we checked our running lights. We turned off a bow light we had lit by accident, as it would have erroneously signaled to other boats that we were under engine power, which we were not. We also discovered our stern light was only burning intermittently. We would have to tap it occasionally to wake it up throughout the rest of the trip.

At 2157 we turned off electricity to the refrigerator for the night. We didn't want to waste any of the boat's limited supply of battery power. With no openings or closing anticipated, the reefer should stay cold until morning.

At 2225 we noted bioluminescence in the water – those tiny white dots of light given off by tiny microorganisms in the water that have been agitated by the boat's passage. They

look like stars in the water, and are a real treat to see. The rain has continued all day, and the winds have remained quite strong.

At 2227, we suffered a near knockdown, which is when a gust of wind overpowers a boat and lays her almost flat on her side. Needless to say, we learned we had not stowed everything below as well as we should have, as anything not properly secured went flying around the cabin below and ended up in a huge heap on the cabin sole (floor).

Just before midnight, our forward lookout Carl got quite a surprise when a huge wave crashed over him on the bow and triggered his inflatable PFD (Personal Floatation Device). The noise is quite startling, and now we had to rummage around in the debris below to find a replacement CO2 cartridge for him.

A further reminder that we were not engaged in child's play came just before midnight when we overheard fellow racer *CHECK'S IN THE MAIL* telling *TARKA* that they were operating with their emergency tiller and requesting sea room to maneuver.

Day 2 – Saturday, 12 June 2004 – Out of the Bay into the Atlantic

As Friday morphs into Saturday at the stroke of eight bells, we find ourselves smokin' down the Bay at better than 8 knots, dodging tankers and fish weirs in almost total darkness. Sunrise comes at 0543 and we unfurl the Genny completely. We also extinguish our running lights.

The 0600 weather forecast is for 10-15 knot winds from the NE, 2' waves, and 70% chance of sunshine. That sounds good.

At 0630 we sight the Chesapeake Bay Bridge Tunnel 8.1 nautical miles away. This will mark our exit from the Bay and our entrance into the Atlantic. We shake out the remaining reef in the main and proceed under full main, Genny, and mizzen.

At 0758 we pass between the posts of the Chesapeake Bay Bridge Tunnel and enter the Atlantic Ocean. This is a magic moment for all of us.

Breakfast at 0815 consists of bran muffins and fruit salad. Phil decides that since it was so tasty going down the first time, it might be fun to get a second crack at it as it comes back up. Fortunately, he is down wind and over the rail while all this is going on. Phil is the first, but not the last, of us to be sea sick on this voyage.

At 0830 we report our 0800 morning position to the BOR Committee by cell phone. It is the last cell coverage we will have until Bermuda.

As we proceed out into the ocean, the clouds begin to break up and we start to get some decent sunshine. The 1215 luncheon consists of deli sandwiches.

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We start the diesel engine at 1512 and run it for two hours to charge our batteries. This is perfectly race-legal as long as we don't engage the propeller shaft, which of course we don't.

At 1820 we attempt to radio our 1800 position to the BOR Committee via our single sideband radio. "WHISKEY ALFA KILO 8712 THIS IS WHISKEY DELTA BRAVO 4867 SEA SCOUT TRAINING VESSEL KUAN YIN. OUR SATURDAY, JUNE 12 1800 POSITION IS 36 DEGREES 26.515 MINUTES NORTH, 74 DEGREES 58.337 MINUTES WEST. WE ARE BEATING INTO A NORTHERLY WIND AT 5.1 KNOTS ON COURSE 140 MAGNETIC. THE WEATHER IS CLEAR AND SUNNY, FOUR FOOT SEAS. ALL WELL." Unfortunately, we cannot get any acknowledgment of our transmission either on the primary specified frequency or on the alternate frequency. We begin to suspect that SSB communications will be a problem. This suspicion proves correct. We are also unable to hear any acknowledgment of our transmission from Tim Barefoot back home, who was listening for us.

At 1845 the Skipper heads for rail and tosses his cookies, too. He reports this is the first time in 55 years that he has thrown up at sea, and suspects that sitting in the confined space of the navigation station trying to send SSB messages is not conducive to gastronomic tranquility.

A glutton for punishment, the Skipper heads back to the navsta (navigation station) to attempt to contact other BOR racers and request them to relay our 1800 position to the BOR Committee. He finally gets good communications with *SABRINA* at 1958, who will report our position if possible. We agree to do the same for *SABRINA*, who had apparently been using the wrong frequencies. Such is the fun world of SSB radio.

Supper at 2030 consists of "Mash Potatoes a la Chindblom" and "Meatloaf flambé" aka "Meatloaf el charro". It seems we'll need to monitor the temperature control on the oven more closely in the future.

Midnight arrives in due course. We are falling into routine. Watches change regularly every four hours, so with three watch sections, each crewmember is on watch for four hours and then off for eight hours. We sleep when and where we can, and all hands turn to when necessary.

Day 3 – Sunday, 13 June 2004 – The First Full Day of Ocean Sailing

At 0352 we hit entered the Gulf Stream. The Skipper described it as follows: "I was off watch 'sleeping' in the forward V-berth. I was semi-conscious, because as skipper, you always try to stay attuned to the motion of the boat and the situation she faces. We had been cruising along with predictable motion for hours, when suddenly I felt as if the boat were suddenly proceeding along a smooth conveyor belt. This lasted for about two minutes when 'wham' – it was like hitting a brick wall. The motion of the boat suddenly became random and confused. Further sleep was impossible. We were in the Gulf Stream."

The morning watch reported that at 0430 a goldfinch had suddenly landed in the cockpit. After recuperating for a few minutes, he walked forward to the bow of the boat. In the darkness, he was seen no more. We all hoped he made it back to land, but with the nearest land being over 85 nautical miles away at Cape Hatteras, NC, the odds were against the little fellow. “Nearest land” excludes, of course, the bottom of the ocean, 11,500 feet, or over two miles, below us.

The 0700 deck log entry sets the picture: SET MAIN WITH ONE REEF AND STARTING TO GET THE HECK MOVING THROUGH THIS STUFF. CREW FALLING INTO ROUTINE, AND FALLING INTO EACH OTHER DUE TO BOAT MOTION. SAILS SET ARE 80% GENNY, MAIN WITH ONE REEF, AND FULL MIZZEN.

At 0800 we know perfectly well where we are, but the rest of the world doesn't. We spend the next hour or so trying to contact the BOR Committee with our morning position report, or to relay it through other BOR racers.

We begin a 4.1-hour engine run at 0851 to charge batteries again. With added electrical power, at 0856 the BOR Committee back in Annapolis says they hear us faintly, but not clearly.

The 0900 breakfast is frosted mini-wheats, more bran muffins, and fruit salad. This time the stuff stays down. We are all becoming blue water sailors.

The 1215 luncheon consists of various deli sandwiches with sesame noodles and cucumber, onion, and tomato salad. We begin to discover that the youth crew and the adult crew have divergent views on what constitutes a satisfactory meal.

After lunch, the skipper sets the sewage valves so that future sewage can be pumped directly overboard, since the holding tank is now full. This complies with applicable regulations, since we are over one hundred miles from shore. Unfortunately, the skipper in the process inadvertently damages the hand pump that would also enable us to empty the holding tank to sea. Therefore, unless we can fix this, which is doubtful, we will arrive in Bermuda with a full holding tank, which is not desirable.

We overhear, at 1333, radio traffic between an aircraft carrier and some other unidentified warship. This reminds us that we are still in the main U.S. Navy Atlantic operating area.

The sky, however, is beautiful – bright blue with puffy white clouds. The seas are moderate, but big enough to let you know you are sailing in the ocean. The water is a gorgeous, pure blue color. At 1400 six, and later twelve, dolphins appear off the bow and cavort along side us. Ten minutes flying fish appear along with Sargasso Sea grass. The skipper labels this a “died and gone to heaven” day. The crew, young and old, is really pumped with excitement and awe at the beauty and majesty of life at sea.

At 1430 the skipper leads the crew in a session of “Roses, Thorns, and Buds.” This is where we all sit down and in turn share a rose (something we are really happy about), a thorn (something that is bugging us), and a bud (something in the near future we are looking forward to). Skipper learned this exercise at Philmont Scout Ranch, and it is a great way to both bond a group and to ventilate about any petty annoyances and put them to rest. As might be expected, there were lots of roses and buds, and very few thorns.

A large westbound container ship passes ahead of us at 1510. If anything, we have seen less surface traffic than we expected.

Supper at 1700 consists of quesadillas.

We are able to make VHF radio contact with BOR Racer *BALLADE* at 1810. She has a satellite phone, and will report our 0800 and 1600 positions to the BOR Committee as well as the positions *SABRINA* and *SOLANA* had relayed to us earlier. Memo to file: “Next time bring a sat phone.”

At 1918 we begin a crew discussion of possible future route waypoints. While the shortest distance between two points at sea may be a “straight” or “rhumb” line, it is not necessarily the fastest. A boat is a vessel moving through a body of water that itself is moving across the surface of the earth, and not necessarily in the same direction as the boat. Accordingly, currents have to be considered. Also, since a sailboat cannot sail directly into the wind, but must beat through a series of tacks to reach an upwind objective, wind is a factor as well. Up until now, the whole voyage has been on a port tack, since the winds initially were generally NE. Now the winds are clocking to SE and we will have to begin to tack. Also, while generally the Gulf Stream meanders in a NE direction, there are warm and cold eddies that come off each side the Gulf Stream and move in clockwise or counterclockwise fashion, often at speeds up to as much as 4-6 knots. Theoretically, it could be possible to be sailing through the water at 5 knots and moving 1 knot backwards over the face of the earth. Knowing where the Gulf Stream and the eddies really are, and knowing how to take advantage of them in relation to the predicted wind and sea is far more important than simply knowing how far and in what direction Bermuda lies.

We had hoped with our SSB radio to be able to pick up weather faxes and possible public-information web sites that might show the Gulf Stream, eddies, wind/waves/weather predictions, and so on. We are finding our SSB is next to useless for even getting out our position reports, let alone supporting any fancy email or web browsing capability. Accordingly, we set our waypoints by what information we had received at the final BOR weather briefing and hope for the best.

Day 4 – Monday, 14 June 2004 – The Second Full Day of Ocean Sailing

At 0730 any crewmember not already awake was jolted awake by a loud beeping from the boat’s low battery alarm. With the high electrical loads on the house bank added to the drain from the running lights during the night, the house bank was down from a

normal 12.5 volts DC to 9.0 volts DC. This would normally be solved simply by starting the diesel engine and recharging the batteries. To ensure the ability to restart the diesel engine, there is a separate, isolated engine battery reserved exclusively for starting the engine.

This procedure normally works fine – EXCEPT when someone has inadvertently left the engine battery isolation switch in parallel with the house bank. Then ALL batteries are drained, and there is not enough current left to crank over the engine. Through carelessness or ignorance on someone's part, but for which the skipper as skipper must shoulder the responsibility, we were now in the potentially dangerous position of not being able to recharge our batteries. Without battery power, there is no radio, no running lights, no automatic bilge pumps, no refrigeration, no cabin lights, and so on. There is also no engine.

It is true that Magellan sailed around the world without batteries. It is also true that we have some degree of backup: tons of AAA batteries to run the GPS, the handheld VHF, and maglights. We have manual bilge pumps, dry ice in packing cases, a kerosene cabin lamp, and so on. However, it would obviously be VERY desirable to get the diesel engine going, and the sooner the better. The practical solution in our case is to secure absolutely all electrical power, properly isolate the engine battery, and wait for the Aquair wind-water generator to recharge it sufficiently to start the diesel. That takes until 1217 when the Yanmar diesel finally rumbles to life, and we all breathe a sigh of relief. The skipper locks the parallel switch into the isolation position, and deposits the key to it in the ship's safe. We will not be caught with our batteries down again.

While spending a volt-less morning, we amuse ourselves with a breakfast of bagels, cream cheese, and orange juice, and then bend on every inch of sail we have. In addition to the 140% Genny and full main and mizzen, we hoist an inner forestaysail and a mizzen staysail. This is the first time under current ownership, and possibly ever, that KUAN YIN has carried five sails at one time. The winds are becoming increasingly light, and we know we need all the wind power we can get. Bermuda is still 475 nautical miles southeast of us, and Cape Hatteras is about 250 miles astern.

With the engine finally running, we begin a 5.5-hour battery charging session. Meanwhile, the afternoon passes pleasantly with sightings of a sea turtle and large jellyfish with sails, known as Portuguese Men of War.

At 1807 we successfully relay our 1600 position to the BOR Committee by SSB almost effortlessly. Obviously, the SSB works at least some of the time. We still don't know whether the reason it doesn't at other times is due to SSB equipment malfunction on our end, or atmospheric disturbances over which we have no control. We also overhear a garbled conversation between one of the U.S. Naval Academy boats in the race and the Naval Academy itself requesting various filters, fittings, and parts be sent ahead to Bermuda. Apparently we aren't the only boat that is having some issues.

Narrative Log of SSTV KUAN YIN – Bermuda Ocean Race 2004