



Sailing with Hugo

By Brian Gilbert

The wind was really starting to pick up. There was a sudden change in the way the boat was riding. I looked out of the deadlights and saw anchor lights streaming to windward at several knots. Both my storm anchors had broken free, and I was headed for the trees...

On Thursday, September 17th, 1989, I was about 18 miles up the Cooper River, just north of Charleston, South Carolina, alone on my sailboat, the Atricilla. A stock Catalina 27 built in 1977, this boat is characterized as a "coastal cruiser," and not known for her rough weather abilities. But she had been my home for the past two years, and practically everything I had was aboard... and now she was standing directly in the path of the strongest hurricane to hit the East Coast in over 100 years.

It's possible that you may find yourself in a similar situation someday. I hope not... after experiencing one firsthand, it isn't something I'd wish on anyone... but hurricanes can and do happen to good people and their boats. My intention in writing this article is to share my experience and mistakes, so that others might benefit from it, or at least start thinking of some severe weather scenarios that might work in your area. What sort of options do you have, and what will you do? Believe me, when the Big One comes, things won't work out as planned, but you can take some steps to be prepared.

And I thought I was prepared. I started getting ready for the possibility of a hurricane several days in advance. NOAA weather radio broadcasts stated the storm had winds topping out at 105 miles per hour, so as hurricanes go, this one didn't seem unusual except that it was tracking straight for the S.C. coast. I put on the flippers and scrubbed the prop and bottom, cleaned and filled the water tanks, and started stowing all the loose articles in the cabin. I'd gone through the same preparations several times before, and though I was taking the storm very seriously, I really didn't think it would hit here. We have hurricane scares every year, and they always seem to drift off to the north, or come ashore in Florida, or weaken to tropical storms before coming ashore in South Carolina. So to be truthful, I was concerned, but I didn't really believe that the storm would hit us. But just to be on the safe side, I got the boat ready to go.

Big mistake number one. You can flip a coin 100 times. It can come up heads 99 of those times, but that doesn't change the odds of your next toss, because a coin has no memory. Neither do hurricanes. It didn't care that all the others had been near misses. With every hurricane that comes your way, there is a chance that your boat will have to endure 120+knot winds. Take those hurricane warnings very seriously.

I did, at least, have a plan. I had gone on a reconnaissance trip to the upper Cooper River via powerboat that previous Sunday, so I had some idea of where I was headed. The river here is wide, but fairly well protected by trees. It's an extensive river system, with room for a large number of boats. We looked at several spots, checked depths, and tried to guess which direction prevailing winds would come from should we suffer a direct hit. This is a very good idea if you have access to a powerboat.

By Tuesday morning the picture had changed dramatically. The storm was much closer now, and *still* seemed to be tracking straight for Charleston. I drove to my job just long enough to type up a float plan that included everything I thought the Coast Guard would want to know... vessel name, detailed description, registration number, next of kin, where I would be before and after the storm, etc. A morbid little document that I'd hoped would be completely unnecessary. I left a copy with Robert, my business partner and friend, and took a few

copies with me to the marina. It turned out that this precaution didn't really help- Robert misplaced his copy in the rush, and I didn't get a chance to leave any other copies with friends, as I got too busy making other preparations. After leaving work, I went to a chandlery and bought some last-minute supplies... better foul weather gear, boots, some bungee cord, six-volt lantern batteries, and stove fuel.

Mistake number two. While I was better prepared than 98% of the population that was ultimately affected by the hurricane, I could have done much better. It turned out that I was unable to reprovision for over a week. If a hurricane hits your area, many of the facilities that you currently use will likely be unavailable... no gas docks, marina stores, no water, and no food. Ashore, many grocery stores were closed for days after Hugo, and when they did open, I heard it was pandemonium... long lines, and very little available. Having at the minimum two weeks of food and fresh water aboard isn't a bad idea.

By the time I returned to the marina where my boat was moored, things were starting to buzz. The navy base in Charleston had announced that its evacuation would begin Wednesday morning. Although the storm was still a good distance away, I considered leaving that afternoon, but decided to wait until tomorrow morning so I could take advantage of a fair tide. Besides, the storm was still due for its traditional last minute change of course... standard operational procedure for tropical storms off the Charleston coast. One of my neighbors in the marina was stationed at the Charleston Navy Base, and had access to the Navy's official weather bulletins. Their predictions were for the storm to pass just to the north of us, which would put Charleston in the safer quadrant of the storm.

In fact, ten miles to the south, the damage from the storm was greatly reduced... some downed trees, power outages, and a really big mess to clean up. But ten miles to the north, the damage was greater, where an entire forest was levelled. Nearly every tree was broken off at the base. The Navy's weather report reinforced my reasoning that "...it'll be close, but we'll be OK." A continuation of Mistake Number One.

Wednesday morning came with no change in the storm's direction or strength. I motored over to the fuel dock early and topped off the gas tank, bought a new chart of the upper Cooper River, and 125 feet of light 1/4 inch nylon three strand line. By 08:30 I cast off the lines and started the twenty five-mile trip.

The Cooper river is dredged to 38 feet to accommodate large vessels as it is the home of the Charleston Naval Base, so navigating the river was fairly easy... except for the large vessels, They were everywhere! Navy vessels, container ships, submarines, tug-boats, you name it. The big ships are better off out to sea in a hurricane, and all were headed out. I gave every one of them an extremely wide berth, staying to the outside



or to the edge of the main channels, and listened intently to the radio, but no one seemed to notice me. I made the trip in around five hours with a fair tide, arriving alone in a nice anchorage with a tree line on the southern side. I still had plenty of time, as the storm was still twenty-four hours away. I busied myself cleaning and stowing, cooked a little dinner, and did a little light reading... Bowditch's section on extropical storms.

The next morning NOAA weather radio was jumping. "Preparations for the arrival of hurricane Hugo should be rushed to completion..." (Hmm... never heard *that* one before. And you know that little tone that they broadcast right before an announcer says, "This Is A Test of the Emergency Broadcast System? It's extremely unnerving to hear that tone without the test part.) The wind direction was forecast as coming in from the NE, increasing to hurricane strength. That report concerned me a little, since my anchorage was exposed to the NE by nearly a mile of open marsh. I knew the wind direction would be changing as the eye passed, and I knew that it would be strongest on the front side of the hurricane. After weighing all the options, I decided to move.

There was a section down river that had a long tree line to the south and west, and a high marsh to the north and east... high enough to support a few straggly trees. I initially set two anchors and tied a stiff 3/8 inch three strand to a small tree ashore. (In that section of the river, the bottom is like a bucket... almost 30 feet deep from shore to shore, with steep, muddy banks. The water was so deep that I just stuck the bow near the marsh and passed the line around with a boathook. The keel never touched bottom.) I took the line around the bow cleats and started to lead my anchor lines forward, when the line ashore sprung itself off the bow cleat and fell into the water. I was using an old hundred-foot mountain climbing line... very strong and stretchy, but extremely stiff, and I was unable to cleat it off tightly. As a result, when the line went slack as the boat drifted, it sprung itself off the cleat. As I watched the old line disappear into the river, I started to rethink my rationale. Having a line ashore would keep me in position for the front side of the hurricane, but it also put me very close to the windward bank. If the wind shifted to the southwest, I'd only have one anchor to hold me off the riverbank. If I set my anchors in the middle of the river, I'd have similar odds no matter what direction the wind came from. Not being a very good gambler, I pulled the anchors up and reset for the third time in the middle of the river, laying my heaviest anchor, a number 18 danforth copy, directly to windward. The smaller anchor, a number 12 danforth, was set down the river to the south. I rigged a jackstay for the safety harness. This was a piece of strong line that ran from the stemhead fitting to the chainplates, and then aft to the backstay chainplate. Dedicated padeyes for this would have been better. And I stripped and bagged the main and its cover, hoping to reduce windage topside.

Mistakes number three, four, and five. I should not have had a mountain climbing line on my boat. It was a spare, and I never thought about it much. But when I needed it, it proved useless. Had it not been in my locker, perhaps I would have noticed that I needed a few extra rodes. Mistake number four was trying to tie off to shore on only one side. Had I followed through with this, I'd have surely grounded in the marsh. If you can tie off in a narrow creek with several lines... bow and stern, port and starboard... then you'll be secure. But only one side to shore would be risky unless you have several anchors to balance the other side. Mistake number five was having only two anchors. Even though my storm anchor was oversized for my boat, I think that five anchors out would not be too many.

At this point, some folks in a powerboat came by to take me to shore if I wanted, and there were several offers on the radio offering to ferry folks ashore. I said no, thanks, I would stay with my boat. This was mistake number six. Actually, it was such a big mistake that it counts as seven, eight, and nine, too. I'll discuss why after the storm.

After laying out almost every inch of rode that I had, I was positioned right in the center of the river. I took both anchor rodes around the bow cleats and took the tails aft for a turn around the winches. The storm rode was a half inch three strand that was very stiff, (though not nearly as bad as the mountain climbing line) and I wanted to be certain that it didn't jump the cleat like my line ashore... that would be the end of the story. My

other rode laid on the cleats well... it was a much softer half-inch double braid with about fifteen feet of chain at the anchor. I led these to the winches as well, in case the cleats didn't hold up under the coming strain. I knew that they weren't designed for this type of load, being installed on two 1/4-inch stainless steel bolts with washers instead of backing plates. To protect against my bow cleats untimely demise, I got out my secret weapon... 125 feet of 1/4 inch stretchy nylon rope, purchased the day before. I cut off two thirty foot lines and tied one end to the anchor rodes about five feet ahead of the bow cleats with my best rolling hitch. (I even got out the knot book to double-check my work.) The tails were led aft to the sheet winches. I cranked on a few turns until the tension was about equal on the rode and the light line, then made both fast, leaving the line on the winches so I could adjust it as the night wore on. I wrapped all the lines with rags to serve as chafe gear and went below to fix dinner. It was around 1800, and the wind was beginning to increase to a good breeze.

By 2200 it was howling outside and raining hard. I would occasionally stick my head out of the companion-way to check my position against the anchor lights of several other boats anchored nearby. At 22:30 both anchors broke out and I started to drift downwind at an incredible speed... as if I had no anchors at all. I ran up on deck, clicked my harness onto the jackstay, started the engine and pointed her into the wind. I think that I slowed the anchors down enough for them to dig in, but I couldn't tell if I was still drifting or not, so I kept the engine running, trying to prevent the fin keel from sailing around the anchors. She would point quickly from one side to the next, each time presenting her beam to the wind and placing enormous strains on the rodes. It was absolutely pitch black and screaming, visibility down to about twenty-five yards or so, and it was impossible to look to windward. There weren't any boats to leeward of me, so the only thing I could see was my secondary anchor light flailing about the boom. Twice a large powerboat bore down on me, beam to the wind, trying to motor through the storm. She'd lost her anchors around 2100. Once she came within twenty feet before she saw me and gunned her engines to get out of the way... I could smell the exhaust in the 70+ knot wind. She finally ran aground later that night.

By now I was completely disoriented. I couldn't see any anchor lights anywhere... everything was pitch black. The boat spun 360 degrees on three separate occasions, with the wind on the bow the entire time. I heard later that there were lots of small tornadoes that night, but there was no way to know if that was the cause of the boat spinning. Even with the occasional lightning flash I couldn't see where I was in the river. The boat would heel wildly, and seemed to whip through sixty degrees from one side to the other. I shut the engine down after an hour or so, to conserve the motor. The prop would clear the water and I could feel the motor race, and I was certain that she wasn't getting enough water into the intake, though the temperature gauge said she was OK. I was sitting on the cockpit floor with both hands on the tiller, trying to calm the boat. And I was close to the trees... too close. I could hear the trunks snapping like popcorn. Another large powerboat, apparently unoccupied, drifted past me about twenty five feet to starboard. I never saw her until she was downwind of me. I had a sharp knife ready to cut the lines in case I was run down and holed. I figured that I could blow into the trees in about twenty seconds, but I was certain about one thing... the harness was not coming off the jackstay until the water was up to my neck, and I was positive she was going down.

The eye passed overhead around 0045. I couldn't believe that I was still afloat. The wind dropped to around fifteen knots, and the rain stopped. Several anchor lights on the other boats were nowhere to be found, and I could see several others were aground or very near the shore. I went below and turned on all my lights... spreader lights, running lights, everything... so that everybody else would know I was OK, and they could check their position, since I'd become dependent on the few remaining anchor lights to tell me if I'd shifted position or not. I looked for stars, but couldn't see any... just a black sky.

With the eye overhead, I was able to strategize a little. I knew that the wind would be coming from more or less the opposite direction, and I had a nice tree line to break up the wind a little, and plenty of dragging room to leeward. After about ten minutes of relative calm, the backside hit. I was surprised to find the wind every bit as strong as before, yet a little different. While the boat was still heel past fifty degrees, she seemed to

come up a little faster than before. On the front side of the storm, she would get pinned down and held by the wind for what seemed like forever. Now she was just getting pinned... and I was getting tired. By 04:30, twice I thought I'd seen the marsh just a few feet away, but when I looked again, nothing was there. And I thought I saw yellow lightning coming from the ground in the distance. (This turned out to be no hallucination, though... high voltage power lines went into the river about a half a mile downstream.)

When the dawn finally broke, the wind had backed down to 45 knots or so, but I wasn't feeling out of the woods yet. I was concerned that one or both the rodees had wrapped the keel or prop shaft, and I imagined that they were ready to break at any second. They were leading into the water at such an odd angle, I figured they had to be fouled...that was the only explanation that I could come up with.

By 09:30, I began to relax a little. The wind was down to around 25 knots, and both anchors were still holding, though they were still entering the water at strange angles. I later discovered that they were wrapped with tons of hydrilla seaweed that was drifting downriver. This made the rodees point nearly straight down. One anchor had fouled onto another line... probably when I dragged across the river early into the storm. The snag is probably what kept the boat out of the marsh.

Feeling confident enough about the storm to think that the worst was over, I took a look about to assess the boat. I later discovered the only damage that I sustained on the entire boat was a bent storm anchor shaft- the number 18 danforth copy's 3/8" steel shaft was laid over 45 degrees. The cabin was a mess...everything was tossed on the floor... but nothing irreplaceably ruined. She didn't ship a lot of water, and although my bilge was rather shallow, the cabin didn't get too soaked. I radioed my status to friends upriver, and got a report on how everyone else fared. Lots of people had run aground, but in my immediate area there were no injuries or missing boats. There were only two other boats still floating... the rest had run aground. I fell asleep after lunch, only to wake up an hour later. A small island of hydrilla weed surrounded the boat, and the whole assembly was floating downstream. I slowly hauled each anchor up using the halyard winch, then prodded, poked, and pried myself free of the hydrilla. I motored up out of the main stream and rafted up with some folks from my marina, and then slept for a very long time.

Mistake number ten. My storm anchor was not a genuine Danforth, but a copy. I had figured that the by virtue of it's large size, it would be strong enough, but the genuine Danforth suffered no damage. Copy or not, though I didn't have nearly enough ground tackle for this storm, but survived through a bit of luck. One of my anchors snagged something on the river bottom, and I think that this is what kept me out of the trees.

Whenever I tell this story, people constantly ask me if I'd do it again, or what would I do differently. I believe that my actions and decisions were sound, and given the facts presented to me, I made the right choices... much to the disbelief of my non sailing friends... but before the next hurricane season comes around, I'll have at the very least four strong anchors, preferably five. I want to put in more cleats, a size larger and with full size backing plates. I'll have more functional stowage, and a proper rain catching system. (My marina was destroyed, and I ended up anchoring out for nearly six weeks while they rebuilt.)I'm amazed at the boats over-all performance, as I'd considered her to be rather marginally built, but she's got more to her than I'd initially thought. Lastly, I would not stay with the boat if at all possible. During the storm, I spent most of the time just holding on. My greatest risk seemed to come from other boats running into me, and being on board just increased the risks. Things were completely out of control. If, for example, I had been run down by that drifting boat, I'd have been in real trouble. The fact that I'm still around to tell the tale is the product of about one third preparation, one third fate, and one third luck... that's two thirds out of my control, and not very good odds. So now when someone says hurricane, I'll make every effort not to be anywhere near it.

Brian ended up selling his boat before the next hurricane season (something he still has mixed feelings about) to return to graduate school. He married, has a young son, and is just finishing up the restoration of a second

sailboat, a Macgregor Venture 222. He has no plans to ride out another hurricane aboard.