The Helmsman

United States Naval Academy Sailing Squadron Safety Magazine

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Sailing Squadron

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Our mission:

The United States Naval Academy Sailing Squadron directly contributes to the Naval Academy's overall mission of developing future naval leaders. Naval Academy Sailing meets this goal by providing Midshipmen with hands-on leadership development through sailing. Naval Academy Sailing believes in not only promoting leadership development but also a culture of safety. With this in mind, we believe that sharing firsthand experiences that occur both on and off the water can lead to a higher awareness of sailing safety.

Special Thanks to the following people for their article and photo contributions:

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Special points of interest:

- Weather
- Sailboat Maintenance
- Situational Awareness
- Preparedness
- Emergency Procedures

Inside this issue:

Naval Aviation has long enjoyed a free exchange of lessons learned. That tradition permeates every post-flight debrief and is publicly revealed in a bi-monthly Navy & Marine Corps Aviation Safety Magazine entitled "*Approach.*" Published by the Naval Safety Center, "*Approach*" is a collection of first-person narrative accounts of Naval Aviation mishaps, close calls, and lessons learned. Such is the culture throughout the Navy and Marine Corps that aircrew are encouraged and lauded for submitting frank and honest articles that serve as lessons for us all.

It is our hope that this culture of open exchange can be spread to the recreational sailing community throughout the country. We hope the stories contained within this second edition of "*The Helmsman*" can serve as lessons in what to do and what not to do.

We welcome submissions throughout the year of other first person narratives (anonymous submissions are welcome).

Let's get the conversation started and keep safety foremost in our minds as we enjoy the water.

Commander Les Spanheimer
Director of Naval Academy Sailing

Disaster Averted

By Frank "Rich" Feeley

An offshore rigging failure is handled with teamwork and some friendly help

The return passage after the Newport Bermuda Race is often a pleasant cruise. It is usually well off the wind and without the constant pressure to make the last one-hundredth of a knot or change sails at the first (or last) possible moment. For me it's a chance to catch up with old friends in the crew.

Rich du Moulin needed crew to bring his Express 37, Lora Ann, back to New York. I joined him along with two experienced sailing friends from my college years, Lee Reichart and Bill Rapf (all aged 65 to 67, but fit). This crew had more than 50 Bermuda races plus return passages. Rich is a prime mover in Safety at Sea training, so we knew that Lora Ann would be well found and well prepared for the passage. In the exhilarating reach that was the 2012 race, she finished third in her class to Carina, which won the St. David's Lighthouse Trophy. Lora Ann has been on the podium for six straight Bermuda Races.

On Saturday, the day before our planned departure, the briefing room at the Royal Bermuda Yacht Club was packed for the presentation by the Bermuda Meteorological Service. The weather in Bermuda was benign, but the forecast showed two worrisome features. In the Gulf of Mexico, a developing low seemed destined to become a tropical storm, and perhaps a hurricane. A shower of computer projected tracks splayed out from its center. Most headed north to the Gulf Coast, but some crossed the Florida Peninsula and moved out into the Atlantic, crossing the homebound course late in the coming week. In fact, this low developed into tropical storm Debby and did follow the less probable track out into the Atlantic.

The other prominent feature was a strong cold front moving off the U.S. coast. As it closed in on Bermuda in the daily projections, it squeezed the isobars against the amoeba shaped western extremity of the Bermuda High. If we left on Sunday, southwest winds would increase to 25 to 35 knots on Monday night as we intersected the front — conditions Lora Ann had encountered many times. It would be a bit bumpy on Monday night perhaps, but preferable to a de-

layed departure that might encounter a developing hurricane later in the week. The skipper's subsequent conversations with a private weather routing service confirmed the projections, and we left St. George late on Sunday afternoon.

Crew casualty

Two hundred miles out of Bermuda, as the wind was building, Lee, a veteran of 20 years racing on Lora Ann and many trans-Atlantic and Bermuda races, slipped and fell against the primary jib winch on the port side. As we reached farther away from Bermuda, Lee found it more and more difficult to move without severe pain, and by Tuesday as the seas built he was confined to his bunk, the pain buffered by Oxycodone and Valium. (Once home, X-rays confirmed a broken rib on his left side.) Rich had e-mailed his wife Ann, a registered nurse, who advised us on the drugs. She also gave us the symptoms for a punctured lung, which fortunately were not present.

As Lee's condition worsened, so did the weather. Throughout Monday afternoon and evening, we shortened down from the No. 3 jib to the Solent to reefed Solent, and from full main to one and then two reefs. By dusk on Monday night, we were sailing with only the double reefed main.

A small boat that does a lot of around-the-buoy racing, Lora Ann has a mainsail fitted with a boltrope and slot — no slides. Her reefs are secured by shackling each reef tack to a strop near the gooseneck rather than hooks that tend to release the sail as it is doused. But above the second reef the luff can blow away as the

sail drops out of the slot. With one man down, and one having to steer in the big seas (the autopilot was struggling at that point), two crew would be hard pressed to control the mainsail when doused, so we deferred putting up the trysail.

Lora Ann sails remarkably well, however, with a double-reefed main alone, and we had been through 50 knots with this rig on many occasions so we did not change to the trysail. Lora Ann powered on into the night on a close reach at full speed. As forecast, the winds built to more than 30 knots. The seas were clearly growing to impressive heights, and the self-steering gear could not cope, so we steered by hand. We were almost glad we could not see the full height of the waves. One boarding sea threw the helmsman across the cockpit, but the two men on deck were safely strapped in and Lora Ann held her course. Rich has a strict policy of all crew tethered from the time one begins to ascend the ladder to the cockpit until back down below standing on the cabin sole. There is a big padeye near the companionway for this purpose.

The damage

By dawn on Tuesday the seas appeared to be running 20 feet, with the wind holding the anemometer well up in the 30s. Bill and I were on watch. As the gray light grew, there was a sharp crack, like a rifle shot. I looked up from my cockpit reverie to see the lower windward shroud flapping free, and the unsupported mast violently flexing from port to starboard about two feet at the first spreader. The shroud had broken off near the deck. I yelled "tack" and Bill immediately put the tiller down. Lora Ann promptly tacked to starboard, putting the load on the new windward side, taking the pressure off the port shrouds.

This tack brought us into the heart of a passing squall, sending the wind speed well up into the 40s. For the moment, we were safe, but we were heading back for Bermuda. Could we keep the rig in the boat, repair it and return to our course for New York?

The port lower shroud turnbuckle threaded stud broke when the forged lower eye cracked. Fortunately the chainplate and barrel of the turnbuckle were undamaged. At the spreaders, the mast was bent 12 inches out of column but did not appear fractured or dimpled. Being so out of column, the compression of the rig and seas could bring the mast down at any moment. The mast would have broken quickly if we hadn't tacked, but it was still in danger of collapsing.

The repair

The first task was to reconnect the remainder of the shroud to the chainplate. Rich leaped on deck, and using a short piece of green Spectra line saved for damage control, fished the chainplate and stropped the turnbuckle back together. In order to tension the shroud, he secured a second (red) line to the turnbuckle, led it down through the chainplate, through a large block (also kept for emergencies) back to the primary winch. With this winch, we were able to tension the shroud and take up slack in the strop. Lora Ann now had all of her rigging, but we were unsure how much load it could take.

With a temporary repair in place, we reported our predicament to other boats during our planned morning SSB radio contact. All offered help. After considering the option of returning to Bermuda, potentially encountering tropical storm Debby en route, Rich decided to carry on for New York. Lee concurred from his bunk.

We tacked back on to port, watching nervously as the load from the reefed mainsail came on to the repaired shroud. It held but we decided to motor until the seas subsided. With the mainsail down we were able to take a spinnaker halyard under the lower spreader and around the back of the mast to the port rail and winch it tight. The mast was now supported by the two lines to the turnbuckle and the halyard.

When the storm subsided the following morning, Bill, sporting a helmet and PFD as a flak jacket, was hoisted to the lower spreaders to inspect for cracks (none) and attach a strong Spectra line to the babystay toggle fitting which we also led to the rail and aft to another winch. The babystay was perfectly located to support the lower shroud and bring the mast back into column. We then unrigged the supporting halyard and hoisted the reefed main and Solent jib. Nervous but comfortable with our jury rig, we revised our plans to put as little pressure as possible on the mast. This meant carrying less sail area than optimal, and motorsailing when necessary. We carried extra jugs of fuel, but not enough to reach New York.

Two pit stops

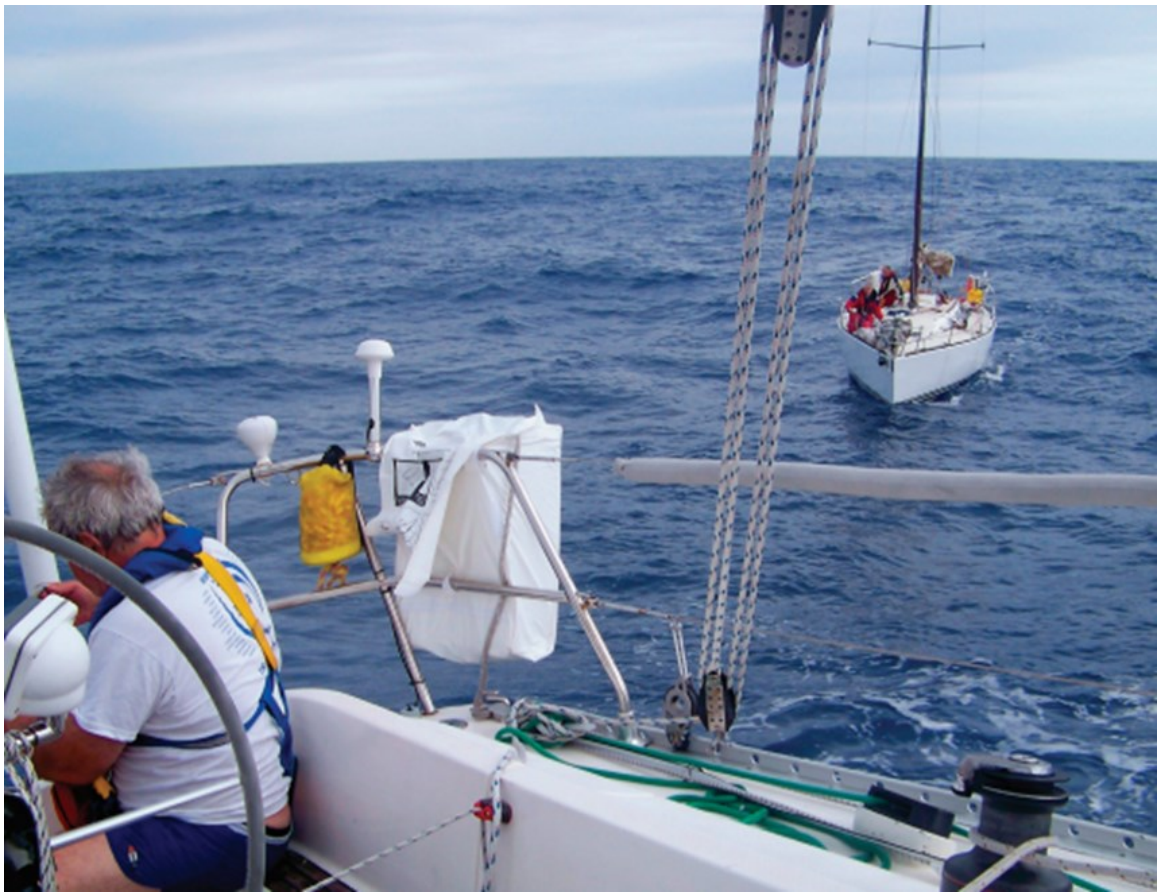
Choucas, sailed by a double-handed crew that was friends with Rich, was the nearest boat on our radio net. They arranged to meet us and transfer 10 gallons of diesel on Tuesday evening. By the time we rendezvoused, a little before sunset, the wind was down but the seas still high. We motored cautiously under Choucas' stern as they floated a line down to us. Once we snagged it, they released the other end attached to a five-gallon jerry jug of diesel, which floated easily. We pulled in the line and hoisted the jug aboard. We threw back the line and repeated the maneuver to obtain five gallons more. Choucas exhibited excellent seamanship and did not hesitate to come back to help us.

It was clear that we could not maintain our original schedule of two-

man watches. Lee was confined to his bunk, and the skipper was navigating, doing damage control and maintaining constant communications links. Fortunately, Lora Ann has excellent hydraulic self-steering gear that does as well as a skilled helmsman in all but the highest seas. Bill and I shifted to one-man watches, letting the autopilot steer. The man on deck maintained the look out and adjusted sails. As we gained more confidence in our jury rig, we added more sail, striving to maintain six knots plus with sail and power, but never pushing the boat to its normal performance. When we entered the Gulf Stream on Wednesday night, we shortened down to the storm jib in case we should encounter a squall.

By Thursday, we were through the stream and making nearly seven knots on a pleasant beam reach with just the Solent jib and double reefed main. Still, if the wind died, we would not have enough fuel to reach New York and get through the harbor. Just before dusk, friends on the Tartan 47 Glory overhauled us and transferred an additional 10 gallons of diesel fuel. In snagging the floating jerry jug, the telescoping aluminum boat hook parted but we were able to successfully complete the transfer.

Glory had Internet access and was able to track Lora Ann on Yellowbrick for the three days after the shroud incident. When we broke the shroud they were 80 miles astern. Our Bermuda Race navigator John Storck, Jr., in Huntington, N.Y., knew of our problem via e-mail from Lora Ann, and visiting the Yellowbrick site, identified Glory as the boat behind us on our track. He e-mailed both Lora Ann and Glory, put-



Lora Ann *as seen from the deck of* Choucas *following the transfer of diesel*

ting us in e-mail and satphone touch with each other. Like many newer boats, Glory had no SSB. Thereafter they were kind enough to act as our "security blanket" and follow us until rendezvous three days later.

The reaching wind angle held through Thursday night, enabling us to maintain nearly seven knots with minimal pressure on the rig and no motoring. We raised the New York Harbor approach early on a steamy Friday afternoon, and were safely secured in New Rochelle before dinner, only a little more than five days out from Bermuda.

Other yachts

We later learned that Lora Ann was not the only yacht to suffer damage in that squally front. The C&C 41 Avenir lost her rudder at nearly the same time. Unable to steer or control the boat with a drogue or a spinnaker pole steering oar, the boat wallowed in the tumultuous seas. The crew eventually elected to abandon ship and was picked up by a passing cruise liner. Avenir was later recovered.

The well-sailed J-120 Mireille owned by Hewitt Gaynor is a regular competitor of Lora Ann in double-handed races. She was about 40 miles to the east during the storm, sailing under full mainsail (she is a much stiffer boat). In one squall she was knocked down beyond 90 degrees by a sea. Water from the boarding sea flooded out the navigation station. Mireille also hit some floating object and her retracted sprit was shoved aft through a bulkhead. Fortunately no one was hurt and our Black Seal rum on board was unharmed. There were also serious injuries to crewmembers on the return passage of three other Bermuda competitors. Convictus Maximus sent a crewmember with a spinal cord injury back to Bermuda on a merchant ship, while the U.S. Coast Guard extracted injured crewmembers from Barleycorn and Conviction for medical treatment.

Frank "Rich" Feeley is associate professor at Boston University and owns a 34-foot Jenneau sloop Antigone.

Special Thanks to Tim Queeney, editor of ***Ocean Navigator*** *Magazine for permission to reprint this article.*

Sinking of the Bowditch

By Ben Spraque

September, 1978

After graduating college I really didn't know what I wanted to do with my life much less with my Anthropology degree, so I happily deferred making a decision until after a fun summer working with Peter Clauson waiting tables at the Harriet Beecher Stowe House in Brunswick, ME. We lived with our friend Ann Taylor in her grandfather's house next door to the Bowdoin College Alumni House and had a great time. Summer flew by and before I knew it Peter had headed back to Greenwich where he had been lining up interviews with prospective employers and Ann had moved to Cundy's Harbor with her parents in preparation for the start of her senior year at Connecticut College. I found myself back in Prides Crossing, MA with only a vague idea of wanting to "get to the Caribbean to work on charter boats".

A week or two after Labor Day I was sailing with my neighbor Sam Batchelder and family friend Bobby Hooper. We passed a dark blue ketch going the opposite direction and Bobby called over "hello" and later told me that was a boat belonged to his friend Fred Strenz. He knew that Fred had taken his boat, the Bowditch, south to winter in the Bahamas the last several years and that had heard Fred was planning to take her south again that Fall. "Why don't you ask Fred if he needs any crew?," Bobby casually suggested. I did just that.

October, 1978

We departed Manchester, MA, on Friday, October 13, 1978, a clear sunny day with blue skies and fair winds. On board were Fred Strenz (age 57) from Manchester, owner and skipper, Dick Stanley (age 55) from Nahant, Malcolm Kadra (age 38) also from Manchester, and me (age 22, referred to by all as "the kid"). The plan was to sail to Bermuda, visit and re-provision and continue on to Man O War Cay, Abacos, Bahamas as our final destination. It took us about a

week to get to Bermuda encountering some of the nastiest weather I'd come across since the Jeffries Ledge Race on Saphaedra in 1972 and a passage off Utilla in Honduras' Bay Island on Josephine in 1973. Winds were estimated at 60 knots, a full Gale where we towed a warp (400 ft. of anchor rode) to help keep us in control. The waves were steep, 30-35 ft., but well patterned and spaced so handling the Bowditch wasn't untenable. Still under bare poles

Bowditch

running before the wind and waves we were making in excess of 8 knots. At one point during the storm we saw lights to starboard, which later turned out to be the S.E.A. research/school vessel Westward (125 ft. Staysail schooner). We illuminated our mizzen masthead strobe light and the two vessels stayed well clear of one another. The waves were so high that the mizzen strobe lit up the wave crests as they broke above the mizzen masthead.

A day or so before arriving in St. George's, Bermuda, we had flat calm conditions, a true Bermuda High with no wind. I recall all four of us taking a dip in the water with the sails up (a maneuver I'll never repeat). During the gale I'd become queasy which was probably from the permeating odor below. A faulty fuel injector was spraying a mist of raw fuel on the manifold, creating a constant smell of diesel fumes aboard the boat. For some reason Fred Strenz thought what I needed was a shot of whiskey. Shortly after, I broke out in hives—a reaction I have since come to know as being caused by severe dehydration, lack of sleep, excess physical exertion and a good shot of carbohydrates. Part of what appealed to me in taking a dip in the ocean was to cleanse myself of the remnants of the

itchy hives and the overbearing diesel stench of the boat.

We spent about a week in Bermuda drying the boat out, re-provisioning, eating decent food and sampling the nightlife available in St. George's. Malcolm and I spent a lot of time together as Dick was more closely connected to Fred than either Mal or me.

Crew change – Dick Stanley left the boat to fly home for a family or business obligation and Fred Nataloni (age 48 and also from Manchester) arranged by Malcolm, flew down to take his place. In 1978 I had known Fred (or more accurately, known who he was) for more than ten years, almost idolizing him as a young junior sailor in our yacht club's sailing program. Fred was the club steward, so he was in charge of all that went on at the club, launch drivers, dock and club boats' maintenance and commissioning. I don't think he really knew who I was, but he certainly recalled my name and he knew my parents. He'd been out of that role at least eight years and was now the Director of Marine and Recreational Vehicles for the State of Massachusetts and had survived/served a number of gubernatorial administrations, no easy task in the Massachusetts political arena.

We provisioned at the Piggly Wigley near St. George's. Both Freds took a taxi to the Bermuda Airport at St. George's to get a weather forecast for the second leg of our trip, Bermuda to Marsh Harbor, Man O War Cay, Abacos, Bahamas. The report they gave us seemed to indicate we had a good weather window for the projected six or seven-day passage, there was one caveat however. The weatherman mentioned a slight tropical disturbance that he didn't think would affect our route(!!). We put fuel aboard and departed St. George's, Bermuda on Wednesday, October 25 under fair skies and moderate winds. Winds were W/NW only because I recall being off the breeze most of the two-to-three days before wind and weather began to make up. By Saturday evening we had steady overcast skies and winds back up in the 30-35 knot range, and I recall thinking, "I hope we're not going to have a repeat of the trip down, are we?"

By noon on Sunday it was apparent we were getting progressively deteriorating weather; the wind speeds and wave heights were increasing as the barometer dropped below 28 inches of mercury. By this time we had already shortened sail as much as possible so by the end of the day the mainsail was fully furled on the main boom and the staysail secured to the club boom which was also lashed to the foredeck. As dark arrived the waves were exceeding the height of those we'd experienced on the trip to Bermuda but with a distinct difference. These waves were not evenly spaced and patterned as those from the

gale the week before. These waves were unpredictable in their direction, so that it was much harder to keep the boat running before them. Due to this the boat was in constant danger of getting knocked down. Due to the unsettled state of the seas, Fred Strenz had decided that towing warps wouldn't be of much benefit, so we ran under bare poles with the engine on in low rpms. The day before we had doubled up our watches to two- man shifts, (life jackets and safety harnesses clipped in to jack lines for all on deck) and Fred Strenz and I were off watch in bunks sometime after 2200 when the boat took a knockdown on her port side. Fred was launched across the cabin striking the bronze supports for the port pipe berth in his chest while I was dumped on the cabin floorboards. We learned later that he had cracked several ribs as a result. Fred was able to get up and go on deck while I briefly remained below having crawled back in my bunk. The main salon was now in disarray. Many items had spilled from where they had been stored and now littered the cabin sole which was under ankle deep water! A short time later the companionway hatch slid open and Fred called down to me to come on deck and pump. "Not good," I thought to myself.

Since I thought I would be on deck for just 10 or 15 minutes (I was off watch) I put neither my safety harness nor life jacket back on (we had been wearing them on watch) as I went topsides. I recall standing in the cockpit preparing to pump and tying a line around my waste and securing the other end to the mizzen mast, three feet from where I'd be pumping. I pumped standing just inboard of the port cockpit locker/seat, it was maybe ten minutes until the Edson pump sucked air. At that point Fred Stenz said, "Kid, you go back down below and see if you can get us some food.", but I didn't want to so Malcolm said, "I'll go below and get you a hunk of cheese, Fred." After the knockdown the binnacle light had gone out, so now Fred Nataloni was kneeling forward of the helm facing aft holding a flashlight to illuminate the compass to help Fred Strenz maintain course and keep the Bowditch running before the seas. He was also calling each hill-sized wave as it broke telling Fred Strenz which way to turn the helm. Sighting the monstrous waves was made easier by the mizzen masthead strobe lighting the crests of the waves before they came crashing down toward our transom lifting it up at the last second to propel the 42 ft. ketch surfing in an awkward motion that challenged the helmsman to keep her from broaching. My task complete and not

wanting to return below I remained on deck watching this desperate team effort to keep our craft stable and upright in the escalating maelstrom. The two Freds were still co-steering the boat as we were overtaken by a thunder and lightning storm the likes of which I had never experienced (nor have I since) where the two were occurring simultaneously. The lightning illuminated our immediate surroundings as if it was daylight and the thunder crashed around us as the seas thrashed at our hull. Were it not for the gravity of our situation you would almost use the word "exhilarating" to describe the scene. About an hour later at approximately 2400 we took another knockdown.

This time it wasn't the 35-40 foot seas alone that put us on our beam, it was a combination of waves and wind, wind colliding with our hull and bare poles, that laid us over on our starboard side. The wind was so strong it really did sound like a freight train descending upon us. This time too, we didn't just pop back up again but were held over fully capsized so that to remain vertical I was standing on the mizzenmast with my arms wrapped around the primary cockpit winch. Malcolm later told us that the salon hatchway to the engine compartment burst open and water was rushing into the main salon with great force. Within a few seconds the water was approaching the depth of his chest. It was a mutual determination that the cockpit hatch, to the engine compartment had been compromised during this last knockdown. When the Bowditch did begin to right herself it was with a sluggish demeanor. By the time we were upright again we were noticeably lower in the water.

About this time I noticed that the 8 ft. dinghy which we had stored forward of the main companionway hatch had been dislodged aft during the knockdown and that it was now resting squarely on the hatch itself. Malcolm, who had been below this whole time was trying to get back topsides but couldn't because the sliding hatch was now jammed by the dinghy having been knocked off its chocks. He was screaming for me/us to let him out and I asked Fred whether I could let him up on deck. Unbeknownst to me at the time was the fact that Malcolm was in chest deep water in the salon and that we were in fact, sinking fast. When I told Malcolm to wait while we dislodged the dinghy freeing the hatch he decided to come on deck through the forward hatch. By this time the decks were just starting to be awash when I deliberately untied my tether from around my waste to go forward to help unlash the dinghy. This we did vehemently with rigging knives to the inclu-

sion of severing the painter as well as the lashings.

As we stood with three of us holding the dinghy (I was a few feet aft next to the mizzen mast shrouds) a huge wave swept over the deck rising steadily. I held firmly to the shroud as the waves rushed up my body and over my head.

Growing up near the water I learned at an early age that waves go up and they come down, so I was expecting the water to recede. It did not! The next sensation I felt was pressure on my sinuses like what one experiences when diving into the deep end of a swimming pool. This led to a rapid realization that the boat was sinking and that I was going down with it. For a split second I thought, "so this is what drowning is like." I kept swimming up the shroud I was holding and eventually kicked free and broke the surface within fifteen feet of my crewmates who were hanging on to the upturned dinghy.

The salt stung my eyes and there was a strange haze and surreal feel to my present surroundings. In the pitch darkness I heard Malcolm calling my name and I thrashed over to my companions despite the violence of the sea state I was now a part of and grabbed the gun-

The crew and their dinghy

wales of the dinghy. Our location was in the Sargasso Sea (approximately 28 degrees 30' N, 78 degrees 0' W), with the water temperature well above 70 degrees, so we had that in our favor. To say that our situation was dire is nothing short of understatement. We had sent no SOS, none of us had thought to retrieve the ditch bag which was stowed in the starboard aft cockpit locker (just feet from where I'd spent the last hour), and our life raft had been washed overboard during one of the knockdowns. Consequently we had no emergency rations, no water and no EPIRB! What we did have was a fiberglass dinghy with extra flotation, reinforced gunwales and oars and oarlocks lashed securely inside. At eight feet in length it was a foot shorter than a Dyer dhow and was our only chance of survival.

While the time from our second knockdown to the actual sinking of the Bowditch was and still is tough to calculate, the time we spent clinging to that dinghy has been indelibly etched in my mind. We lost the Bowditch around midnight on Sunday, Oct. 29/Monday, Oct. 30 and were finally able to right, bail out and climb into the dinghy around 11:00 am Monday morning. Most of the eleven hours spent in the water were like being in a giant washing machine with the waves continually crashing down over us as if trying to rip us from the dinghy. Our heads were under water as much as they were above it, the occasional flash of lightning the only time we actually saw each other, the dinghy (which we alternated upright and overturned) and the ever present breaking seas.

By 11:00 am Monday the sun was shining brightly, winds down to 25-30 knots and the seas 15-20 feet (more evenly spaced) and breaking but not violently. To get into the dinghy, we righted her, the two Freds held the bow into the seas and I pulled down hard on the transom while Malcolm climbed up my back and shoulders and into the open boat. He then cut the hood off his foul weather jacket and used it as a bucket and bailed the water out over me while I continued to pull down on the transom stabilizing it in the stern. I climbed in next and helped haul the two Freds aboard while Malcolm unlashed the oars and inserted the oarlocks. For much of the time aboard the dinghy the oars were critical to keeping our bow into the seas to avoid being swamped or worse, capsized.

To say it was a tight fit I again invoke understatement. You would no more put four 6 ft. men in an 8 ft. dinghy to cross a millpond than place them in an open sea environment. The next 31 hours were a mix of settling in to a routine, one man in the bow, two men amidships sitting aft of the center thwart seat and one seated on the aft

seat. It was the stern man's job to handle the oars keeping our bow into the eastward setting seas (away from the busy shipping lanes). We established a watch system where we changed positions every hour always vigilant about shipping water and averting capsize. We assessed our situation (not good). It would be at least three days until we were reported overdue, our supplies (meager – two knives, a flashlight, two life jackets, a hundred dollar bill and a piece of gum), and kept an eye on the water for ships and an eye aloft for aircraft.

That night we saw two ships but both were in excess of five miles away and had no chance of sighting our flashlight.

We naturally had a lot of, almost incessant conversation about many different subjects. Fred Strenz told us that he believed we were done in by a waterspout as he saw a waterlogged seat cushion get sucked up out of the cockpit. He also maintained seeing the compass card on the binnacle go through two 360 degree circles as he struggled to get the Bowditch off her beam ends.

On Tuesday, October 31, late in the day I was on the starboard oar and spotted a glint of white that looked like more than a whitecap playing tricks with my eyes. After what seemed a long time struggling with what my eyes saw but my mind dismissed, I pointed to it and said, "I think that's a ship." Strenz was even-

nued from Page 8)
setime before morning, a ... Several rain squalls were ... hope was to get as close as

tually able to determine that in fact it was a ship and it was on an intersecting course with us.

Suffice it to say that we rowed like Hell at what we thought would be the closest point of contact with the ship's heading. As we were within a mile of one another Fred Nataloni in the bow began waving his orange foul weather jacket and Fred Strenz in the stern kept calling out to Malcolm and me who had to pull harder to keep our heading. By the time we were abeam of the ship I chanced a look over my shoulder and will recall what I saw until the day I die. We were within a ¼ mile of the ship (we were still in 15-20 ft. swells so still had limited line of sight) and I could tell she was a tanker with the long catwalk running from the bow to her massive white house and bridge deck. In that instantaneous view I saw a man on the catwalk running aft toward the bridge deck. I took this as a good sign but kept rowing as hard as I could. The ship kept steaming by us (I later learned they were doing 18 knots) and was easily ¾ of a mile past us when we noticed a change in her speed and course. As I saw the ship turn around and head for us, I knew we had been saved! All four of us shouted and screamed in unison and tears of joy flooded out of my eyes.

The ship was the 24 de Febrero, a naptha tanker, en route from Rotterdam, Holland returning home to Havana, Cuba in ballast. We were treated very well on board and arrived in Havana Harbor Thursday afternoon, November 2. From there we received assistance from the US Consul working under the auspices of the Swiss Embassy who issued us passports and facilitated our purchase of tickets to Toronto on Air Canada transferring to Boston.

Lessons learned:

Since that voyage 37 years ago, I have logged thousands of sea miles on both sail and power vessels. Suffice it to say that I approach every offshore opportunity with a more practiced eye toward every aspect of the vessel and captain I can fathom.

After leaving Bermuda with the "mostly" favorable forecast, I recall little tracking of this "disturbance" during the days leading up to the hurricane. 1978 technology was archaic by today's standards, but we could have been better prepared both equipment-wise and exercising more vigilance. With today's advances in electronics and available weather routing services, we have a lot more tools at our disposal, but we must still be actively engaged in monitoring weather along one's expected course.

That we lost our life raft during one of two knockdowns illustrates another lesson. My recollection was that the life raft was simply lying on the cockpit sole, but

others' accounts recall it being secured to the mizzenmast with a lanyard. In either case, we never got to it. So properly securing the life raft to the boat and ready for use is crucial. Drills reviewing life raft deployment should be part of abandon ship exercises.

The fact that we had a ditch bag but never got to it, for whatever reason, panic, distraction, or sheer terror at our predicament has always bothered me. Compulsory abandon ship drills would do a lot to help prepare a crew for the unthinkable "abandon ship" moment. And further, in such drills assigning certain tasks to each crewmember might well enhance the effectiveness of such drills. To this day Malcolm and I disagree as to where the ditch bag was (he recalls it being in the large bag with the life raft and I in the starboard cockpit seat locker), which further supports the need for drills.

When I went on deck that Sunday night to man the pump without my life jacket and safety harness I should have been sent below to get them. That said, I am fortunate that I had to go forward to help unlash the dinghy forcing me to untie my improvised tether. Having at least one end of a tether on a quick-release fitting provides an extra layer of safety in case the need arises. It probably goes without saying but I'll say it anyway, we all need to take care and hook in when on deck. It's not just your life you're protecting, but those of your crewmates as well.

The night we were rescued we learned that the ship had altered its course, out of the shipping lanes to avoid the very same storm that sank the Bowditch (we were told winds in our area had been reported in excess of 100 mph). This fact generates the inference that "luck" and only luck played a very big part in our rescue. The elements of "the rescue equation", most certainly, had to align themselves to an almost perfect scenario in order for the rescue to happen. The reason we were seen was that a crewman aboard the tanker completing his first voyage was on the catwalk near the bow, watching seabirds off to port. When the birds disappeared in the trough of a wave we appeared on the crest directly in his line of sight (waving jackets and screaming). No one else saw us. He alerted the bridge who put binoculars on us and effected our rescue.

The author is a yacht broker with Nordhavn Yachts Northeast in Portsmouth, RI. He lives in Bristol, RI with his wife, daughter and son. He divides his on-the-water time between rowing his 19 foot ocean shell and delivering Nordhavns. This June he will join a former high school classmate on his Sabre 38 for a passage to Bermuda.

A Key Approach to Offshore Passage Making

By Dick Stevenson

How you approach offshore sailing is key to the success of each passage. Some of the most valuable, even crucial, attitudes and skills may be little learned or valued in everyday life on shore, and may even fly in the face of those that are greatly admired and sought after. The following is what I've learned over years of sailing offshore.

After 15 years of coastal cruising, I decided to take my 38' sailboat on my first offshore passage: round trip NY to Bermuda to see if blue water sailing was for me. We prepared endlessly, expecting a six-day trip. The trip did not go as planned. On day one we bumped our overloaded boat into a sand shoal in NY harbor, followed by enduring a couple days of near flat calm; then--careful what you wish for--we were chased by a tropical storm that forced us significantly off course. We hove to until the storm left us behind ending this now nine-day passage with a boisterous close reach. Like many I have talked with since, I was little prepared for how much I would be freaked out by this anxious journey and all it would stir up in me. Fortunately, the return passage was far more what I expected and hoped for.

It was only much later and with some reflection that I began to understand some of the learning, even growing, that began on that first passage. Twelve years of full-time live-aboard life and numerous further passages have solidified these thoughts. In the following, I will attempt to spell out my observations on some of the relatively unique elements contributing to success in making an offshore passage on a small sailboat.

But first, a few words on how we develop life skills on our way to offshore sailing. Generally, we learn the skills that best get us through the life we are presented with, picking up techniques as we go along from our parents, our genetics, our environment and our culture. What skills one develops are in large measure determined by the challenges that come one's way. One does not learn to paddle a canoe living in the desert, nor cooperation and compromise if most challenges have you on your own.

There are numerous methods to deal with challenges. Many, including myself, take on challenges with a bit of aggression, total focus and a head set to complete the challenge as quickly and successfully as possible. This method works quite well in many instances where the end is clearly in sight: in a competitive athletic endeavor you are coached to "leave it all" on the field; you climb a mountain all the way to the top; term papers are sweated out, but (usually) handed in on time. Following these accom-

plishments is often collapse and then recuperation, with rewards if you succeed and disappointment if you do not.

Offshore sailing with its long passages presented me with a surprising (and insistent) opportunity to add to my repertoire of skills in responding to a challenge. My usual set of "athletic" responses did not include: patience, rolling with the punches, flexibility, tolerating uncertainty and not knowing when, or even if, the goal would be accomplished. These were skills which had had little value in the challenges I had heretofore faced. They were rarely, if ever, taught to me, and, in general, had I had occasion to think much about these skills, I likely would have downplayed, even ridiculed, their value.

But offshore passage making does not benefit from leaving it all on the field. You never want to become depleted, physically or mentally, as this is when errors and accidents occur. You always want to have reserve resources, emotional and physical, just as you would not deplete your food or water. Fatigue is likely the single most potent factor in errors and accidents. On a passage, there is always uncertainty. With the unpredictability of weather (and numerous other variables) it is not exaggerating that having a reservoir of resources can mean life instead of death. Until the very end, the end is never in sight.

Alchemy

I remember a good example of this having left the Bahamas, and after four glorious but tiring days, we were approaching Cape May, New Jersey. Pea soup fog had set in, the wind was blowing along the shore and a tug and tow had decided that ¼ mile was adequate clearance as it started a broad curve that brought it our way. The Coast Guard, Cape May, refused to answer questions about obstructions along the breakwater or in the harbor that we needed to watch out for, but the local Sea Tow came back to us reporting that we would see a dredge and barge in the turn of the breakwater base.

With the use of radar and GPS tracking our position, we headed right in believing our ducks were in order. With our fatigue and desire to get anchored inside, and all that

was going on around us, we neglected to consider the quite strong cross current and how disconcerting it would be. Not aware we were unprepared to enter, we never considered anchoring off for the night (conditions would have been uncomfortable, but safe enough) or heaving to for a while to get rest and allow the fog to lift. We got in, safely finessing the dredge, albeit daunting at times!

I will continue to use all the skills at my disposal, but there will never be a time where luck is not invited aboard. This is not only a good example of fatigue/depletion induced errors, but also (and most importantly) how fatigue operates such that you are unaware of its insidious effects. So, try not to run your vessel in a way where depletion/fatigue is likely to occur and triple check yourself when it does occur.

On our 40-foot boat, Alchemy, offshore sailing is done as a couple, so injuries are a large concern. There is a guidance rule we try to follow which suggests that we patiently move at 2/3rd speed. It is rare that one needs to rush to do anything, so we don't; injury is far more likely when hurried. The same mindset goes with the boat. We try not to sail the boat at greater than 75-80% of its capacity. It is in the upper 20% where there is little room for error and where damage and accidents are more likely to occur, both to person and to the boat.

As for pushing the boat hard, I remember a very boisterous 2-day close reach from Florida to Beaufort NC. From the beginning we were pushing the boat as hard as we could to get in before nightfall. The next day we lived on the foredeck hand stitching the jib. It was also an impressively rough trip where we were thrown around a good deal and felt fortunate not to have experienced injury. In our 40 foot boat, almost any time we exceed 7 knots we try to slow down as the comfort level starts to slide and the chances of injury increase. This is an approach that keeps us and the boat safe. It also flies in the face of the kind of mindset that is often admired in everyday life, characterized by a "going for it" attitude.

Listen closely to your own and others' language. Too often sailing is embedded in an adversarial context. I would suggest that an offshore passage is best not seen as a competition. If one sees the goal as conquering the ocean or prevailing over the sea, then disappointment is guaranteed and loss (at some point) is inevitable. The task at hand is to reach your destination safely, and a far more efficient and accurate approach is to think of yourself and the boat as in a dance with the wind and sea. More importantly, Mother Nature is the clear leader in this dance. Trying to lead, dominate or overcome is fruitless and likely dangerous; better to practice the skills of accommodation and respect, aligning your resources to what Mother Nature brings your way. It is our capacity to work with the wind and the seas that ultimately deter-

mines the satisfaction one achieves.

The above observation that you are a follower in this dance underscores a particularly potent emotional element in offshore passage: how much is out of your control. Rather than overcoming obstacles (running a faster mile, conquering a mountain), your challenge is to work with the particular set of circumstances as they occur, to deal--and deal well--with the unpredictable: increase in wind = change jib lead and reef; current against= tack out of it; headwinds = hunker down for the long haul; equipment breaks=replace it, repair it or jury rig. You wish to respond and align yourself with the realities, dealing with the regularly occurring "small" stuff: the small stuff that in aggregate makes for a seaworthy vessel and wise decisions.

There is rarely "one" problem. One problem is usually workable. Problems with a capital P are usually the result of a cascade of small problems that accumulate. With this attitude you will give yourself and your crew the greatest likelihood of a successful passage.

The above considerations make an offshore passage a distinctly different opportunity to develop skills that are an essential platform for offshore passage making. Stamina is certainly more a key component than in most endeavors. Rather than going all out, one searches for a physical and emotional output that is sustainable for long periods without depletion. Balance, moderation and restraint are crucial skills to have ready at hand in sailing's many challenges. Respect and accommodation are the order of the day. The ocean passage is a wonderful training ground for the above skills and as they develop, it will be seen how valuable they are in other parts of your life.

Interestingly, one of the areas many of us are first introduced to tasks/roles/responsibilities where there is no end in sight (and limited control) is in parenthood. Like it or not, with parenting and offshore passages, once started you are in it for the duration, or, as some may experience it, for the long haul. The silver lining, if you will, is that one learns (and grows) a great deal on the journey. As Bernard Moitessier might say, the destination pales in comparison.

Dick Stevenson is a retired Clinical Psychologist/ Psychoanalyst who, with his wife Ginger, has been living aboard their cutter, Alchemy, a Valiant 42, for more than 12 years. They've cruised from Bermuda to Maine with their 3 children, and in 2002 they retired, sold the house, and moved aboard full time. Dick and Ginger have wandered the NW Caribbean, Bahamas, and parts of the eastern Caribbean. Without crew, they crossed the North Atlantic in 2006 with stops in Bermuda and the Azores and spent 4 years in the Mediterranean. More recently, they have spent winters in London while doing the British Isles one season and during the following, touched on all Baltic countries on their round trip to St. Petersburg, Russia. Norway, above the Arctic Circle and the Northern Isles. of Scotland are recent cruising grounds. Dick is a member of the Cruising Club of America, The Ocean Cruising Club and a Commodore of the Seven Seas Cruising Association, and is an Amateur Radio operator, call sign KC2HKW.

Clobbered on the Delaware

By CDR Les Spanheimer

The U.S. Naval Academy's Offshore Sailing Training Squadron (OSTS) summer cruise program is an opportunity for Midshipmen to participate in an offshore passage to a remote port during which they can further develop their seamanship, navigation and leadership skills. OSTS Block 2A formed for local area training on June 30, 2014. Local area training went well as the crew was introduced to big boat sailing onboard the Navy 44 sail training craft. The Midshipmen who participate in this program have very little previous offshore experience so the learning curve is steep as the two qualified instructors (Skipper and XO) teach the crew various essential offshore sailing skills (navigation plotting, tacking & jibing a large keelboat, reefing the main, headsail changes, man-over-board "quick stop" maneuvers, use of a "preventer" and a host of other skills). On day 4 the crew embarks on their first over-night sail on the Chesapeake Bay where Rules of the Road and coordination with (and avoidance of) commercial traffic is emphasized.

The following week, NA-25 joined three other Navy 44 crews on a northbound passage to Marblehead, MA where they would enjoy a weekend of liberty and community service before returning to Annapolis. The departure into the northern Chesapeake Bay and through the C&D canal was uneventful. Upon entering the Delaware Bay, the Skipper and four Midshipmen went off watch.

The Executive Officer (XO) and a crew of three Midshipmen remained on watch. During the early portion of the Delaware Bay southbound transit the sky in the west had darkened, and the No 4 jib was raised. Clearly a storm front was approaching. The XO called up his RadarCast application on his iPhone and confirmed that a fast moving storm was in fact bearing down on the Squadron from the west. RadarCast is one of several smart-phone applications which provide a real-time feed of current weather radar data. Additionally, it offers an animated predictive function

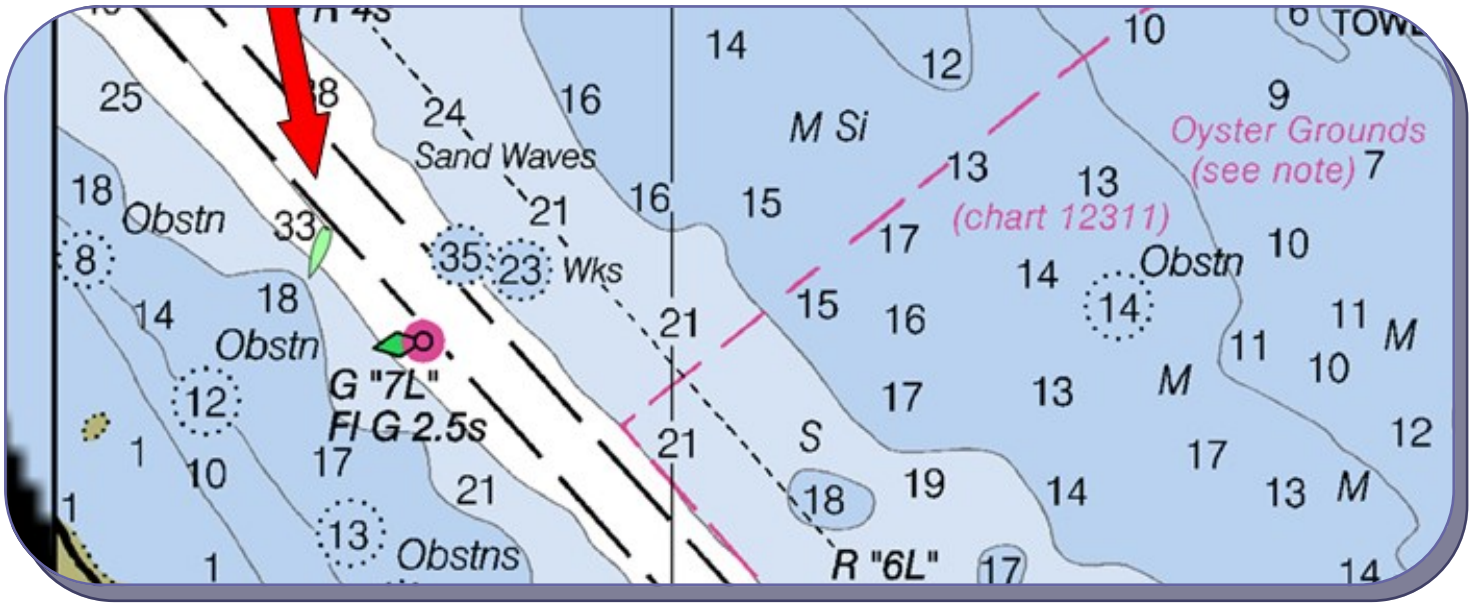
which can be used to estimate storm-front movement and development. The XO was watching both the darkening skies and RadarCast as the squadron sailed south down the Bay.

A key objective of the OSTS cruise experience is to develop in the Midshipman Watch Captain a proactive leadership style. They are taught to anticipate and endure dynamic weather events by reefing the main, and changing headsails; storm sails are carried for extreme conditions. The XO conversed with the crew, hoping to pull from the Watch Captain a realization that threating weather was approaching. At 2020 (8:20PM) Radarcast predicted that the storm front was 30 minutes away, the Watch Captain suggested that the crew reef the main, it was 10 minutes prior to sunset. OSTS policy states that all on-deck crew members should be tethered in from Sunset to Sunrise and at any other point when otherwise deemed prudent. One of the crew asked if tethers were required – "not if you're quick" was the XO's reply. Ten minutes later the leading edge of the storm front hit the squadron like a ton of bricks. The overpowered vessel was suddenly heeled over as the novice crew attempted to set the first reef on the mainsail. Positive control of the vessel was increasing difficult with the No. 4 headsail still up.

Realizing that his on-deck

watch team was overwhelmed the XO called down below for assistance from the off-watch team –"wake the Skipper – we need some help on deck!" The Skipper awoke, glanced at the navigation chart plotter and scrambled on deck. As the Skipper took the helm and started the engine the XO went forward to assist with dropping the No. 4 headsail. Heavy rain and a darkened sky had reduced visibility to only 2-3 boat -lengths. Operating in a narrow channel with a shoal area to starboard side the crew had now lost sight of the passing northbound tug towing astern and the three other Navy 44s in the squadron. Due to the 50 knot squall the boat rounded up and was headed directly for shoal water, at what distance was unknown. With the jib now down, the boat righted herself and positive control was regained; traffic and shoal water were the next immediate concerns. The Skipper directed the XO to the navigation table to obtain a good heading to clear water. A good heading back into the channel was passed to the helm and AIS confirmed the tow was continuing to open to the North, the other three Navy 44's positions were also confirmed. Once the boat had settled down and was back on course down the bay NA-25 contacted the other Navy44's.

Every Naval Aviator is taught a valuable mantra in flight school: Aviate, Navigate, Communicate. As a pilot in command it represents the priorities during emergency situations. That order is reflected in the actions



NA 25 Tenacious headed for shoal water

many take on the water as well: we first depowered the boat and got her under control (Aviate), we could then steer a course back into the channel (navigate), and only then was there time to confirm the status of our squadron mates.

The danger had subsided…many lessons were learned:

Lesson One: Over-reliance on digital products. Modern technology is fantastic but it's no substitute for real-world observations and sound judgment. In this case the XO had been tracking the approaching storm front for an hour before it hit. The predictive animation on his iPhone, however, gave him a false sense of security, believing that his crew had more time to prepare. Keep your eyes on the horizon, the rest is supplemental.

Lesson Two: Safety always trumps training objectives. Setting up situations for the crew to make decisions in an important part of the OSTS program, knowing when to step in and make the decisions for the Midshipmen is an even more important safety function of the Skipper and XO.

Lesson Three: Most evolutions on a boat, take longer than you think. This is especially true with a novice crew. Not clipping in because it was technically not required at the start of the reefing evolution was not the prudent thing to do. We could have paid a heavy price for that.

Lesson Four: Small problems can quickly cascade into larger issues. This was a great example of how one bad decision can have increasingly dangerous consequences. Much of the drama that unfolded could have been mitigated with one simple change. Had the XO not waited for the Watch Captain to direct the storm preparations, had he directed it himself when it was first apparent that the storm front was approaching the situation likely would have unfolded like this:

It was clear from real world observations, backed up by the Weather Radar application, that the storm would be a factor for the squadron an hour in advance of its arrival. That was the time to act. The No. 4 was raised early but a reef should have also been taken well in advance of the arrival of the storm front.

That early decision to reef the mainsail could have been done in "slow time." A Midshipman could have been appointed to brief and lead the evolution. This should have

been done with the crew tethered not only as a safety consideration but as a training objective in itself as the crew needed the practice of foredeck operations with tethers.

Loss of positive control would likely not have been a factor with a reefed main and downsized headsail. The Navy 44 is a robust craft, overbuilt to handle heavy weather when configured properly.

Navigation (out of the channel, towards shoal water) would not have been an issue with a properly configured sail combination. Reduced visibility would not impact the crew sailing in the channel and monitoring other vessels via the AIS display on the chart plotter.

At the worst point in the storm visibility was less than 100 feet, winds were gusting over 45kts, the boat was no longer under positive control (heeled over with reduced rudder authority), the crew has lost sight of other traffic and the navigation solution was temporarily lost. Within ten minutes the sails had been reefed and doused, a safe heading to good water was reestablished, position of nearby traffic was confirmed by AIS and the boat was again headed south down Delaware Bay. No damage was suffered onboard NA-25 but two other boats in the squadron suffered torn mainsails which required replacement the following morning. No injuries were suffered but this situation clearly could have been far worse with the danger of man overboard, collision and grounding all very real possibilities during this episode of cascading incidents.

"In flying I have learned that carelessness and overconfidence are usually far more dangerous than deliberately accepted risks."

— Wilbur Wright in a letter to his father, September 1900

CDR Les Spanheimer has spent most of his Naval Aviation career flying Command and Control missions onboard the E-2C Hawkeye and British AWACS aircraft. His staff assignments include the Naval Strike and Air Warfare Center in Fallon, Nevada and the Joint Staff, in Washington DC. On his final sea tour he was responsible for the self-defense of a Nimitz-class aircraft carrier on its maiden deployment to the Arabian Gulf, he also served as the Search and Rescue coordinator for that entire multi-ship strike group.

CDR Spanheimer sailed Lasers in college and has sailed offshore on both the east and west coasts. He includes a 2011 passage from Ushuaia SA to the Antarctic Peninsula via Cape Horn as one of his most memorable trips. He is the current Director of Naval Academy Sailing.

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