Lessons Learned:

How *Infinity* Survived The Newbie Family

By Chris and Brook • *Infinity*, Hull #222 • C350

The Family "Newbie"

They had experience in small power boats on Bear Lake in Idaho where they live. Chris is a retired civil engineer and his wife Brook is a national organizer for the Children's Miracle Network. Their goal was to cruise the east coast and the Bahamas, 2-3 weeks at a time and several times a year, while actively continuing with the Network. They bought a Catalina 350, hull # 222 in July 2019 in the Tampa Bay area and joined the Catalina 350 International Association (C350IA). This is their first sail boat and sailing experience.



Bear Lake, ID and *Infinity* at rest below

They decided to move the boat to Titusville as a semi permanent port. Infinity, was surveyed in July and no significant issues reported (they could not attend so relied on reports with pictures).



The major factor that drove the date of their move was one we are all familiar with. TAXES. Having purchased Infinity in Florida they were required to pay sales tax, unless a 180 day tax waiver could be obtained. That meant they had to move her out of Florida by January 17, 2020.

They had to learn "[Infinity at dock]" about the boat, hardware, coastal navigation including software, marine computing and many other aspects most take for granted. Terms such as shoals, tidal currents, tidal depth changes were totally foreign to them.

Cruising on a set/tight schedule is an Oxymoron.

Preparation #1

Since they had never boated on anything other than a lake, they decided to check in with the C350IA forum. This was the single most valuable decision they made during the entire trip. This forum was very active, many questions were asked, but the first one summed up their sailing skills:

...only been aboard 1 hr under sail. With winds 15 knots do I need to be sure to reef both head and main or just run with headsail?

Consider a rope clutch for the headsail furling line to greatly ease the process of reefing the jib and let the weather helm be your guide. Esperance is wanting a reef about 18 or so but obviously your point of sail matters.

When they asked for routes from Snead Island they received plenty of advice: when to reef, at what wind speeds, heeling angle and what to do with different wind directions. Even down to what tools they should take. After all this advice, they felt ready to leave Snead Island.



Start #1

On the first day, they left Snead Island, and turned on the chart plotter, dual Raymarine e80 plotters, one at the helm and the other at the nav station below. They were advised against going around Passage Key but instead head south to Longboat Pass. But on arriving near Longboat the helm plotter showed no obvious channel and only hazy details such as depth contours but no data or depth numbers (these were available from the depth meter). The correct waypoints and routes were shown as entered by the previous owner. So, they assumed the plotter was working normally. However, Aquamap showed sufficient depth clear to the Gulf. So, they continued south towards

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Sarasota, staying in the channel and did not hug the eastern shore as suggested by some. They had just cleared the Ringling Causeway Bridge.

Dead Stop Grounded!

They called TowBoatUS who arrived several hours later on a fast ebb tide. "[destroyed rudder]" Pulled them backwards and just as they gained some momentum, the wheel was violently jerked on a second shoal. The rudder jammed and then bent upwards. They threw out an anchor and waited for TowBoatUS to return at midnight on a high tide. They were pulled off and towed to a marina at Sarasota for the night. That marina did not have repair facilities so the next day they were once again towed, this time to Cortez Island for repairs.

"[burnt lug shore power]"Three miserable nights were spent on board without any shore power, baking in record heat with no air conditioning. 30 amp power was available at Sarasota, but for some reason we could not use it. It was





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not available when we were aground nor back at Cortez. Discovered a burnt out plug missed on survey. Incidentally, also found a rusted and broken clamp on the PSS seal.

When the boat was hauled out, it was apparent that this was going to be a full replacement. Since Catalina did not have a replacement rudder, a new one had to be fashioned which would take a week. So hey, they were in Florida, and when there you rent a car/condo at Cape Canaveral and act as tourists.

Four days later the rudder was ready. They drove back to the fabrication plant in Ocala, picked up the new rudder and took it to Cortez. Naturally, since it was Friday, the yard was closed when they arrived, so they rented another condo until Monday. The rudder was installed and they motored back to Snead Island. But not before dumping $14,000 onto TowBoatUS which then gave all of it back to them without the deductible! Apparently, this is their policy. So, after 2 weeks, our "Newbies" had 3 hours of personal travel in their new boat, stayed in 2 different rented condos on two different oceans, had driven twice across Florida, and were back where they started. So, they did the only thing they could, plan the second attempt.

The Plot(ter) Thickens

But why had they grounded in the first place? Despite their obvious inexperience, they had relied on electronic chart plotters of which there were three on board: OpenCPN on a laptop, Aquamap on an iPad, and Navionics on the e80s.

> We went aground Big Pass. Sarasota. Should not have been there. Meant to take longboat pass but could not see on chart plotter.

On returning to Snead Island they learned that one of the two e80 plotters was the master unit and the other the slave unit and there was a very strange and specific procedure for starting them:

1. Turn on the master e80 (the one at the nav station);
2. Turn off the master e80 (the same one at the nav station);
3. Boot the slave e80 plotter at the helm;
4. Turn on the master e80 (the same one again at the nav station);
5. Done.

They had only started the slave unit on leaving. Hence, the details were not shown as the master unit, which held the chip with the charts, was still off. Is this normal?

Preparation #2

While the boat was to be hauled he could go back to school. He had up to 3 months to learn more, then stock the boat. He enrolled in a comprehensive sailing course with NauticEd. This included anchoring, tides, rules of right of way, sail trimming, navigation and symbology, docking and communications. Probably should have done this prior to the start, you think?

> Tools? I got a socket set. 1 gigantic ancient screw driver and needle nose. 1 crescent.

> For tools get a fairly complete kit even with a hammer, Allen wrenches, etc. You can't really go overboard here, Spare parts and hoses, wire, duct tape...

Late December, the boat was stocked with spare parts (belts, fuel filters, some tools, a Yeti cooler, cruising books and chart books). All software had the raster charts loaded for the areas in which they would be sailing. All waypoints and proposed routes were inserted on all three navigation systems.

Now, finally, actual route planning. Lake Okeechobee was not an option. "Billy the Boat Tipper" had retired! However, it did not stop members putting in their two cents worth about that course, calculating the load on the boom to swing out sufficient weight to lean the boat under the bridge in extraordinary detail:

> Trying to recall 50 year-ago trig but if a 350 is listed to 23 degrees, the cosine of that angle is 0.92. A 53 foot mast would then require a vertical clearance of 48.76 feet to get through. I know Billy lines up 4-5 plastic 55 gallon drums on the rail, ties them to mast, handrail, etc then has a high-volume pump that fills them with water.

> Rough math 5 times 55 gallons times 8.3 pounds/gal= 2,283 pounds.

The best advice was the following which should have been known at the very start:

> A good start is to lay out distances and "next place to anchor/dock" for the trip. Make a post on this thread with distances and night stops 1-10 and those of us with experience in that area can give more specific advice. DO assume you will have several lay days for weather-- that will be decided on the fly as you see the weather forecasts for the next couple of days. Being "weathered in" at a secure marina sure beats 25 knot winds with 8' seas.

The plan was to leave Snead Island, sail south towards Key West, cut through the Channel 5 to Hawk's Channel, up to Miami and enter the ICW via the Government Cut. It was understood that the ICW could be quite narrow with some shallow areas and they thought it could be done quicker in the Hawk's Channel. The forum said NO, NO and NO, the distances were too great for a day time trip in the best of conditions.

...be sure to figure out where you can spend the night. From Channel 5 (the high bridge you will use to go from Gulf to Atlantic side of the keys) to Cape Florida where you can reasonably head back to safe anchorages or marinas is over 70 NM. Too far for a daylight sail.

Start #2

Their sister-in-law joined the crew for the second attempt. Provisioning had been completed so they could set off right after Christmas. It was an easy ride to Venice where after refueling, pumping out, getting ice, they sought advice on the best route, "Go back out and then south" which they did. No problems through to Cayo Costa, but heavy, unexpected tide current slowed them down. Anchoring behind the first green marker short of Pelican Bay at dusk, setting the anchor in 12' of water, they were woken to a bumping and found the current had turned the boat around towards the shore. This time kedging worked and they continued on the ICW. Passing Pelican Bay they saw a large sailing boat high and dry on the shore, reminding them again of what could be. From there, to St. James City then out to the Gulf.

From St. James City to Ft. Myers Beach Mooring Field, you need to be aware of the tidal current cruising the 'Miserable Mile' of the ICW (roughly from green marker 9 east of St. James City to Green marker 3A). If you happen to transit this stretch during a strong tidal flow, the tidal flow will create significant leeway and it is easy to get out of the ICW channel. And of course, there is a shallow spot near green marker 7 in the middle of that stretch.

Finally, a good night on the hook and an early start the next morning motoring past Naples to Marco Island in windless conditions. They negotiated the entrance past a grounded sail boat, (what! another reminder!), and stayed at the Marina. Local advice was to head to Little Shark River which they reached at dusk, along with the freshening wind. Threw out the anchor but it dragged overnight, again! Could not motor out and found themselves...

GROUNDED AGAIN!

OMG! An additional insult when they found the VHF radio was not working and they were reliant on the low range hand held VHF radio.

The boat gained an increasingly steep lean and everything not secured slid across the cabin. The starboard port light got closer and closer to the water and low tide was still hours away. With the help of the marine operator at the Everglades National Park, the rangers at the Flamingo Resort were contacted who set off to help. But the family decided to abandon the boat. They loaded some belongings into the dinghy and waited 3 hours for the rangers. They could not motor out in the dinghy as the stern of Infinity holding the outboard, was in the trees on the shore. The rangers arrived but could not get close enough to Infinity due to the shallows. They rowed out to the rangers, secured the dinghy on to the foredeck and had a fast 45 minute trip through the everglades to the Flamingo Resort. Fortunately, they did not swim out as no-one had mentioned the other predators in Little Shark Bay!

And yet more insults surfaced. The batteries were not holding a charge and were not charging and the refrigeration was not working. Three people, no power, food rotting, head essentially out of action.

The rangers had already contacted Bob (again) at TowBoatUS who successfully freed and anchored Infinity in mid-stream with no damage or water intrusion. Once again, the rangers ferried the family back to their home on the boat.

The next day wanting to see how far to the next mark, they grabbed the laptop with OpenCPN, pulled it off and shattered the GPS puck. It was a 20 yr old laptop, so no real loss. However, once again the rivalry with the shoals surfaced



resulting in the now almost inevitable grounding and a tow off the shallows of Bowlegs Cut. Once again Bob who came out. It was here they decided they finally understood the markings of the ICW:

1. Red markers are always on the Florida side and the green on the other;
2. Both are marked with little reflective squares;
3. Sometimes shoaling cuts into the channels which is only seen by zooming in to the highest magnification on Navionics, such as Bowlegs Cut.

By this time the holding tank was full (3 adults for 4 days), fresh water was unavailable and the refrigeration system only worked while under way. The ladies were losing some of their enthusiasm. The only pump out in this part of the ICW was at Islamadora, but that was not considered as the water was barely 4' deep. There is a mobile pump on the ocean side but they require notice. Huh! So, they continued to the Anchorage Resort at the northern end of Key Largo. Frayed dinghy lines were not sufficient to haul the dinghy onto the davits and it had been "[alligator close up]" towed the entire way. This became a problem attempting to moor at Anchorage due to the tremendously severe current. The dockmaster insisted the dinghy not be towed into the slip so by maneuvering close enough to throw him the dinghy line and it was secured to the dock. After maybe 10 attempts they finally moored the boat. You would have thought the holding tank could have been "emptied" somewhere but it was found to be clogged after 10 years of no use and was filled with solidified sludge. This had also been missed on the survey. But then, naturally by now, there was no pump out here anyway!

By this time everyone was a bit tired: tired of the issues, tired of no water, tired of no head (although the ladies spent a lot of time on the swim ladder?) and now, tired of the record cold weather! Remember, there had been record high temperatures at the start of this trip. The family was ready to park the boat and fly home for a while. But a slip in Marathon, if you can find a vacant one, runs $4,000 a month, and then only if booked two years out. So, rather than stay in the Keys, they figured they could make Miami the next day. Which they did, after a long slow day against the wind.

They Overnighted at Las Olas City Marina in Ft. Lauderdale and found a place to tie up for a month with the help of a broker we had previously used searching for our boat. So we stopped there so we could fly home.

But there was one more thing. Why could we not get fresh water when we had full tanks? We found out why. A portable fuel tank had slid when the boat had been heeled over so severely at Little Shark River. This had knocked off the barb on the cold water at the transom shower. Throughout this the water pump was running continually. Finally, not only could it be fixed, but the fix cost nothing! One for the "Newbies"!

But that led to another issue. The water in the AGM batteries was found to be low, so they added water as it appeared they needed it. They then found the batteries were split and fluids had leaked out. So, another cleaning job before they left the boat. The batteries were removed at the same time and new ones will be installed on their return. This was almost certainly present before they left on day one.

That's what so good about owning a C350. You get fantastic help from the Pod.

Issues
Chart plotters' operation unclear at the best

Survey misses:
- PSS seal, caused no issues, incidental finding, missed by survey
- Power Sarasota led to 3 days without A/C, missed by survey
- VHF inoperative, unknown
- Batteries incorrectly filled, ignorance
- Head clogged missed by survey.

This is the story as related by the "Newbie Family" to the editor. It has not been embellished. Quite the contrary. It has been shortened and simplified.

"We (Chris and Brook) decided to try publishing this in Mainsheet for three reasons. Firstly, to promote the enthusiastic responses of members of C350IA who had an amazing amount of experience, knowledge and assistance provided through the Forums. Without that resource, we would have had a far more difficult trip, if we had even completed it.

Secondly, publishing this article expresses our heartfelt thanks for all the help provided us that resulted in an ultimately successful completion of our around the Keys jaunt.

Thirdly, some of our mistakes, some reasonable, some just plain ignorant or stupid can be used as lessons. If we, by airing our experiences can assist other fellow sailors in avoiding similar situations, then our personal embarrassment will have been worthwhile."



LESSONS LEARNED CHRONOLOGICAL, NOT PRIORITISED

1. Shallow means Slow;
2. Shallow means douse the Sails;
3. Shoaling can cut into the ICW
4. Green markers closest to shore
5. Don't rely totally on electronic charts;
6. Study the route before trying it
7. Drive by braille!
8. Books are no substitute for hands on

Finally: Things WILL go wrong You WILL get through it