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FALL 2020

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EDITORIAL:

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Share Your Stories with Us!

Mainsheet is the official magazine of Catalina Yachts sailboat owners — read by thousands around the world.

To submit association news or tech notes for publication in *Mainsheet* magazine, contact the appropriate association officer for your boat size listed below. Your article might be selected as a main feature or an editorial column, so please consider including a few beautiful photos to accompany your text!

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March 1st, June 1st, September 1st and December 1st.

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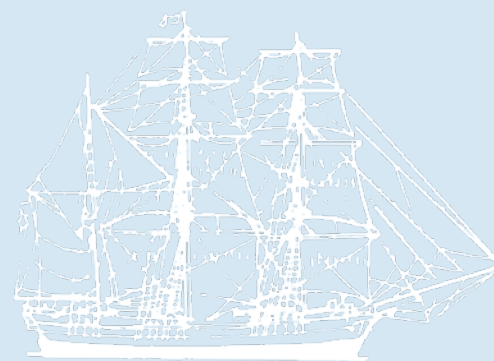
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EDITOR'S BARQUE

Quarantined?

Don't know where to turn?

Being around sailing most of my life, I can honestly say sailing is without



a doubt the most all around "sport," skill, pastime, endeavor, and occupation one can enjoy. Sailing changed everything from the very beginning of time by

giving us the freedom and ability to move goods and people around the world.

And still today, advances in the skill of sailing and the development of boats have never stopped and never will. The Egyptians, who were among the very first to build and develop boats, started a real revolution.

Having been born on the high dry plains of Texas, as a young boy I always had a yearning to sail a boat. Being a teenager when my father took a job in Panama, and being so close to water, I decided to build a boat. It barely floated, but clearly I got the bug to learn more about sailing.

Now, after 45 years of loving the sport, I realize how great sailing can be. It is a world of its own, and if this world we have today has you frustrated, afraid of being close to people, tired of not getting out, I have a solution for you...

Buy A Boat!

—Jim Holder

CORRECTION:

The article titled "The Silent Sentinels of the Sea" in our Summer 2020 contained an error. It was our intent to show the red and white vertically striped buoy but due to space limitations were unable to include it in the article.

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Association members enjoy a wealth of benefits to make the most of your sailboat purchase, including a subscription to *Mainsheet* magazine!

Associations are designed to enhance the enjoyment of owning a Catalina in a number of ways. They are composed of members worldwide who are all committed to Catalina sailboats and seek the camaraderie and support of like-minded individuals. Members include racers, cruisers, weekenders, hobbyists, and all manner of Catalina sailors. In areas where many Association members live near each other, Associations often help facilitate local fleets, whose local participants support one-another and encourage participation in local events and activities. Visit your boat's Association website today to learn more!

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View From the Bridge:

A Primer on the Basics of the Rules of the Road for Sailors

By Commander John D. Hooper, USCG (Ret), Master, S/V Liberty, C400, #136

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**BREAKING
NEWS**

Nine survive boat collision in Chesapeake Bay

[Read Story](#)

The U.S. Coast Guard is investigating a collision between a commercial powerboat and a sailboat in the Chesapeake Bay on 17 August

08/17/2017, by [Candy Thomson](#)

The two boats were off the shore of Thomas Point Park when the commercial boat, part of a charter service, and a J/105 sailboat belonging to the Chesapeake Boating Club in Eastport, MD, collided. The powerboat slid over the sailboat, then came to rest with the cabin mounted across the middle of the deck, leaving a sizable dent.

Captain Michael Andorsky on the J105 said, "I was under sail on a starboard tack, in 10-12 kts of wind, and saw the powerboat off in the distance going at a pretty good clip. It was a clear beautiful day, visibility was not restricted. Since I was under sail I knew we had the right of way, so I continued on my course. As it got closer I started waving and yelling to get their attention, and next thing I know, he's on top of us!"

The 37-foot fishing boat "Hunter" collided with and landed on top of the J105 sailboat. There were nine people aboard the boats and no one was injured, according to the Coast Guard.

The boats were perpendicularly stacked until emergency personnel separated them and towed both to shore.

First responders with the Natural Resources Police, Anne Arundel County Fire Department, U.S. Coast Guard and Maryland State Police responded. Two people from the sailboat, named the Levitation, and seven people from the powerboat, named The Hunter, were rescued, said U.S. Coast Guard Petty Officer 3rd Class Shannon Kearney.

The investigation was later turned over to the Coast Guard, Thomson said.



Well, how often do you hear of these stories, and unfortunately, usually with fatalities. This J105 crew was amazingly lucky and blessed! Can you imagine the speed required by the fishing vessel to launch into the air and penetrate the mainsail! As reported in a previous article, I, too, was in a similar situation sailing on a clear day up the Rappahannock River with a big, loud powerboat overtaking me. Had I not maneuvered in the last couple minutes (when I deemed we were “in extremis”) this could have been my fate too.

The key to avoiding these very dangerous situations is keeping a sharp lookout at all times, and knowing at least the basics of the Rules of the Road.

Admittedly, learning the Rules of the Road (the U.S. Coast Guard Rules for Prevention of Collisions at Sea (aka “COLREGS”)) is not easy; they are complex. So what follows is a very basic primer on the basics that will keep you safe and courteous to boaters and your fellow sailors on the water. “Wait a minute!”, you say: “I was told that boats under sail ALWAYS have the right of way over all vessels. I’m the “stand-on vessel!” Well, I’m here to tell you that’s not always the case, sailboats under sail do have some “privileges”, but it’s not exclusive. Let’s start with the easy, basic scenarios: **Meeting, Crossing, and Overtaking**. As you will see there are some similarities to driving a car.

Basic Power Boat Rules

MEETING. Simply, when two powerboats are meeting head-on, each vessel should alter course to starboard and pass port-side to port-side with ample distance.



CROSSING. When two powerboats are crossing, the vessel which has the other on their starboard must give way, and pass astern of the other. In other words, if you are crossing the path of another and you see their port side, you must yield the right of way. At night this is easy to see because the other vessel will show their red sidelight. You could interpret that to mean “Stop and let me proceed.”



OVERTAKING. In this scenario, the vessel wanting to pass another vessel must give way to the vessel they want to “overtake” and stay well clear. The vessel overtaking can pass on either side. But, the vessel being overtaken has a responsibility too: they must maintain course and speed (a mutual courtesy) so the vessel overtaking you knows how to overtake you.



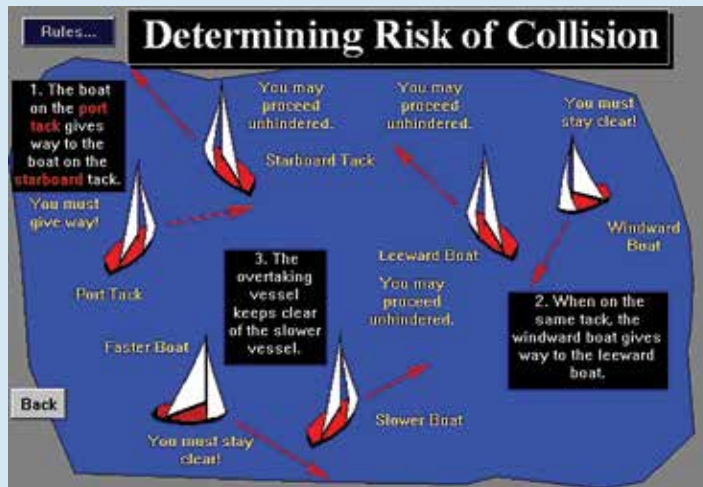
“Okay, I got this! There are some similarities to driving my car. But, what about these terms in the illustrations called: ‘stand-on’, and ‘give way’ vessels?” Very simply, as implied, a “stand-on vessel” may “stand-on”—continue on their course and speed. A “give way vessel” must “give way” (or alter their course or speed) in relation to the “stand-on” vessel.

And, ideally, you should let the other vessel know your intentions by a signal on the horn, or a radio call on VHF Ch13. If you are altering your course to starboard, you should give one short blast on your horn; if you’re altering course to port, two short blasts on your horn. Or, preferably call the other vessel on the VHF and agree to “port-to-port passing”, or to a “starboard-to-starboard” passing. If you’re overtaking another boat, a prolonged and one short (passing on their starboard side) or prolonged and two short (passing them on their port side) to indicate which side your overtaking them.

So, there you have it! Although some of the sound signals change depending on whether you are in Inland or International waters, you now know the “basics” of the Rules of the Road.

Basic Sail Boat Rules

But, you say... "Wait a minute. I have a sailboat. You talked about powerboat maneuvering, how do sailboats maneuver?" Good question, and as you might expect, it depends on the wind (ie., which "tack" you are on, and who is to windward).

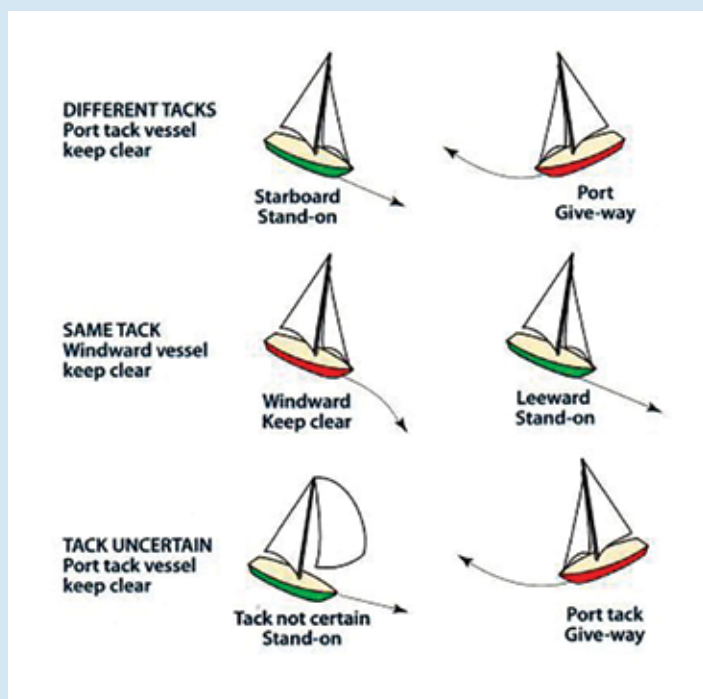


Sailboats Meeting. Sailboats meeting should also alter course to starboard if possible, but in every case, the sailboat on the *starboard tack* is the "stand-on" vessel. (see diagram on right).

Sailboats Crossing. When two sailboats are crossing, the boat on the *starboard tack* (wind coming across the starboard side) is the "stand-on" vessel. The other sailboat (on the *port tack*) *must* give-way.

Sailboats Alongside Each Other. In racing scenarios it is common for boats to be alongside each other, both on the same "tack". In this case, the sailboat that is to "windward" must stay clear of the sailboat to "leeward". This is because the sailboat closest to the wind (to windward) is more maneuverable. (see diagram on right).

Sailboats Overtaking. In this case, a sailboat overtaking another (presumably "Running" with the wind abaft the beam) has the advantage of the wind at its back and therefore is more maneuverable than the vessel ahead. So, the vessel overtaking must stay clear of the vessel being overtaken. (see diagram on right).



If you do not understand what the other boat is doing, or there is a dangerous situation developing, you should stop, and give the other vessel five short blasts. This is known as the "Danger" signal.

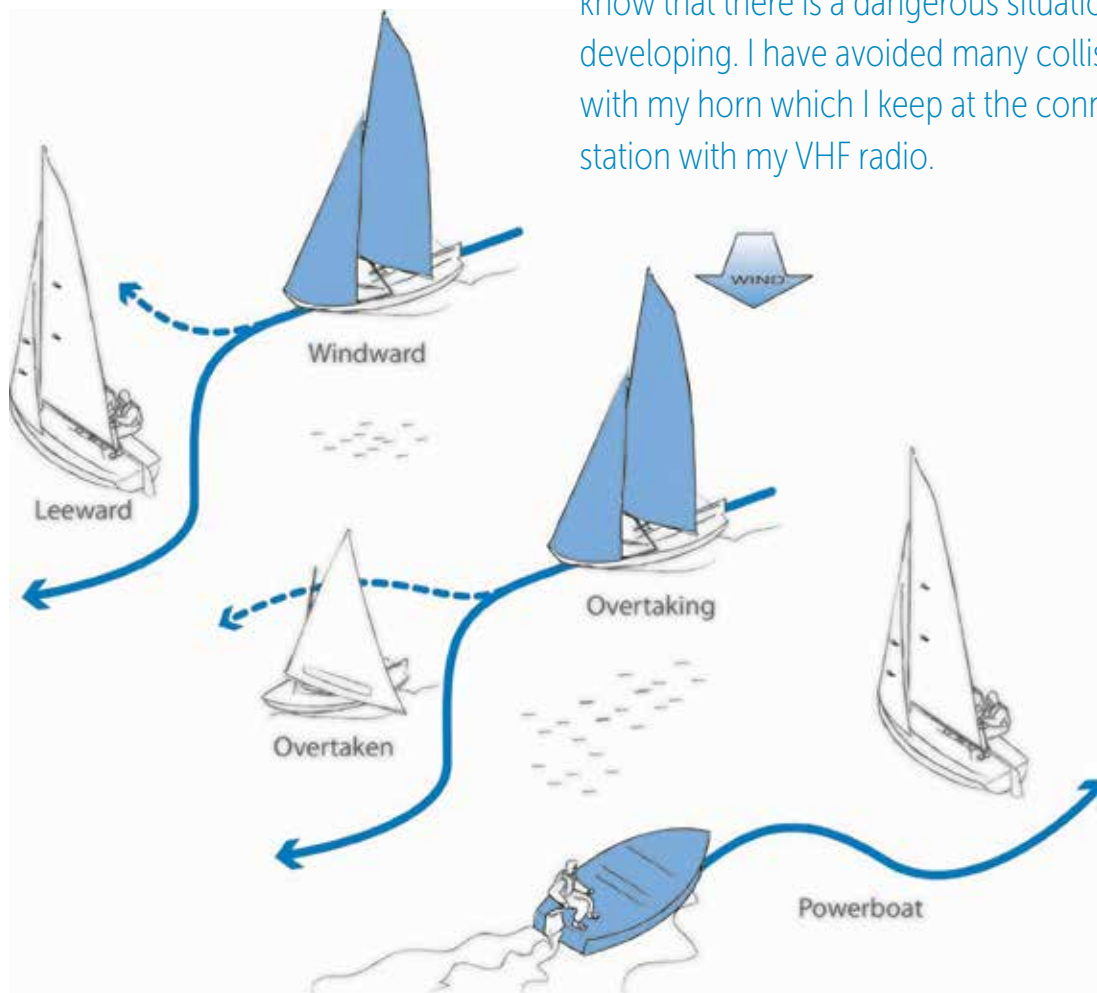
A few important notes: If you do not understand what the other boat is doing, or *there is a dangerous situation developing*, you should stop, and give the other vessel *five short blasts*. This is known as the “Danger” signal. Unfortunately, and to my wife’s dismay, I use this signal often. But, it gets other vessels attention very quickly and lets them know that there is a dangerous situation developing. I have avoided many collisions with my horn which I keep at the conning station with my VHF radio.

And, about that common myth that “vessels under sail have the right of way over all boats”. Well, not exactly! A further study of the COLREGS will reveal that **boats under sail do not have the right-of-way over:** (1) vessels constrained by their draft (ie., big ships), (2) tugs and barges, (3) vessels actively engaged in fishing with their nets down, and (4) vessels “not under command”. So always err on the safe side, be courteous, and use your radio to determine what other vessels are doing.

If you have your sails up, and your engine pushing you concurrently, you are treated as a “powerboat” in the eyes of Rules of the Road and required to maneuver as a powerboat.

Before closing one more term must be understood: a term called “*in extremis*”. *In extremis* means “in extreme danger” and refers to a situation where a collision is inevitable and **action by both vessels is required to avoid collision or minimize damage and injury**. Notably, when you are in an “in extremis” situation **there is no “stand-on” or “give-way vessels—both vessels are required to act**. How do you know when you are “in extremis”? It’s a personal decision based on your experience, the conditions, the maneuverability of your vessel, and a gut reaction. I hope this was helpful...smooth sailing!

A “Danger” signal gets other vessels attention very quickly and lets them know that there is a dangerous situation developing. I have avoided many collisions with my horn which I keep at the conning station with my VHF radio.



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Change of Course:

Salpare's Pacific Crossing

By Fran Sharp • *Salpare*, Catalina 400 No. 88



As I begin, you might be saying “you are in beautiful Hawaii; how exciting!” Hawaii was not what we expected, but hang on till the end of this for the full story.

A brief recap of the beginning. Jeff and I had planned for years to sail away on *Salpare*, our 1997 Catalina 400. That's what *Salpare* means; “sail away” in Italian. We were finally able to realize that dream last September as we sold our land possessions and cast lines off in Tacoma. Our original plan was to sail to Mexico and then down to Central America. After visiting the Galapagos, we would continue west thru French Polynesia, Tonga, and end up in New Zealand.

After the long passage down the Washington, Oregon, California, and Baja coasts, we realized we wanted to slow down and spend more time in the Sea of Cortez. Change of plans! We would winter in Mexico and in early spring, do the “Pacific Puddle Jump” to French Polynesia and beyond. That is a rhumb line distance of 2800 open ocean miles, a major accomplishment for any sailor.

We convinced our friends Tom Miner and Kris Wilhelmsen to join us for this fun filled ocean passage where beautiful Polynesian women would greet them on the other side! Tom and Kris bought into it and joined us in La Paz, Mexico. We sailed a pretty boring trip with little to no wind across the Sea of Cortez to Puerto Vallarta. Here, our fool proof plan would have us wait a few days for our long anticipated Long Stay Visas for French Polynesia. We waited and waited... During the wait, a curious new virus called Corona 19 started making the news.

By the time we had visas in hand and were waiting a few days for the right weather window, the full-blown pandemic had happened. Tom flew home as his priorities (absolutely fine with us) were with his family. Kris would stay on as our crew. We anxiously waited until Wednesday, March 18th for the weather to cooperate. We then met the “Puerto Capitan” of Nueva Vallarta and cleared out of Mexico.

At that time, the news from French Polynesia was mixed. The islands were still open and we were still welcome. But as all of you know things change very quickly with Covid 19. Through emails from other sailors and friends monitoring the situation at home, we learned



As any old salt knows "Northing is tough!" There was quite the storm brewing on the Baja Peninsula, so we headed nearly 400 miles west offshore to try to skirt the worst of it.

on day 3 that things had changed. Options now were to sail thousands of miles past FP and land who knows where since no other countries were open, or stop in Tahiti, surrender our vessel and they would repatriate us to the US. Ok... neither of those options would work for us. It was a painful and tough decision, but we turned north.

I called my brother, a retired Vice Admiral in Coronado, and let him know our status. He quickly arranged a dock at his Yacht Club for us upon arrival in San Diego. Just one small detail... we had to get there.

As any old salt knows "Northing is tough!" There was quite the storm brewing on the Baja Peninsula, so we headed nearly 400 miles west offshore to try to skirt the worst of it. For 3 days we clawed our way north barely making any headway. The 10-12' waves, coming from the north, more than overpowered our engine and kept us at less than 2 kts.



Sailing was the only way. We had to tack back and forth, back and forth, and back and forth to make any headway. On day 3 we reviewed the new forecast and it called for a doubling of wind and waves from the north. We felt defeated... We had a brief crew meeting and made the decision to try our luck going back to Mexico. Cabo San Lucas was a mere 200 miles away.

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We loved Mexico and the folks we met there were part of our love for the country.

Now we knew we could not “legally” go back but we felt a bit desperate. I called my brother to tell him our decision and he merely had to say, “have you talked to the people in Hawaii about going there?” Those few words told me - DO NOT GO BACK TO MEXICO! I quickly had visions of the Mexican Navy - out of Cabo - boarding us, arresting us, etc. Mexico had just started getting very, very serious about the pandemic. Perhaps this would not have happened, but everything seemed so crazy and we were hearing bits and pieces of all sorts of scary stories.

Ok. Let’s turn west and go another 2500 miles to Hilo, HI! When crossing the Pacific on an unplanned route that is better crossed later in the season is your best option, clearly something is going wrong in your world. We asked our weather router for yet another forecast but for west this time and we turned *Salpare* to a course of 272 degrees true.

The waves were a bit more off our beam and we started making way. We have read nearly every book and article about Pacific passages and had planned on motoring 30-40% of the time in light air. But that would be for a southern Pacific crossing. The passage we were undertaking to Hawaii is typically sailed in May and June when the weather patterns have stabilized. Well, we didn’t have much of a choice on this. We had to go.

For the next 21 days we sailed in 20-25 kt. winds with gusts higher and full ocean conditions. I heard and thought the word “relentless” many, many times during those 3 weeks. If you have been in these winds in the Salish Sea, consider what the seas can build to with an endless fetch. I may be prone to overestimating wave height but when Jeff looks out at the sea and says, “My God these are so big; and they just keep coming. I’ve never seen seas like this”, well, you can imagine how I saw them.

We sailed with a double-reefed main and a 30% jib for 21 days straight. We averaged 6 kts for the entire 3200 miles of the full passage rising high above on the crest then sometimes sliding sideways down the other side. The noise of the breaking waves was deafening at times and when we did those big catawampus slides it was downright scary. We had an inflatable MOB pole on our port side upper rail. It was ripped off on one of those slides; nothing left but a string.

After a few weeks of this, we were a bit more nonchalant when we would come up and get a watch report. Same old, same old we would say. We staggered like drunks, hanging

on for every step. Cooking was an adventure and more than once I was thrown across the cabin and landed on the other side with a bowl of food - “hey honey, how about tossed pasta tonight!”.

We arrived in Hilo, HI under the dark cloud of being a non-resident of the island during the pandemic. We came to Radio Bay to check in and all was going fairly well. We had an additional 14 day quarantine (I know, crazy since we were out for 24 days). We could order takeout food, make a trip to town for necessities, and use the head facilities on land. On day 5, all that changed as the Governor was taking flack for not “tracking the people coming into the islands”. That was directed to those flying in, but the backlash hit us. They confined us to our boats and posted security guards! Of course, we were the safest people to visit their island but that didn’t matter. The fear of the pandemic on the island was palpable. The Department of Transportation also closed the Bay to incoming vessels. It felt a bit hostile and more than uncomfortable.

On day 12, after many emails with different authorities, it was determined that we could travel to another island as long as we would do ANOTHER 14-day quarantine. We agreed and took off the next day for the island of Oahu.

We had a beautiful sail to Oahu making terrific time though the much dreaded Alenuihaha Channel. We arrived at our new home in Ko Olina Marina. The resort is closed but the grounds and beaches look wonderful to walk on and swim. Well, we think they will be as we have to wait a mere 9 more days of quarantine to find out.

If you have questions or would like more information on how we outfitted Salpare for our Pacific Crossing, our email is fransharp@comcast.net.



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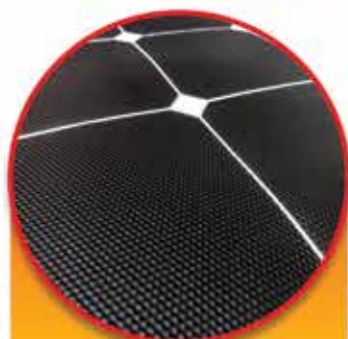
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Lessons Learned:

Come as Quickly as You Can. Your Boat is Sinking!

By the Rev'd Dr. Paul B. Clayton, Jr. • C42-425

This is not what one wants to hear on the car phone on a lazy Sunday afternoon! My wife and I were driving home following Sunday lunch out after our morning liturgy at the Episcopal Church of the Divine Love in Montrose, New York. It's a small congregation where we, both retired Episcopal priests who have served a combined 80 years in Hudson Valley of New York, were supplying or filling in when a congregation is between a regular incumbent and searching for a new one with the bishop's deployment office.

It was June 30, 2019, and our boat *Chalcedonian* (named not after Scotland but the AD 451 Fourth Ecumenical Council in Chalcedon, a suburb of Constantinople on the Asia side of the Bosphorus, about which I had written my Ph. D. dissertation, published by Oxford University Press in 2007 at an obscene price), one of the earliest Catalina 42 Mark Is, built in 1989, had just been launched the previous Friday for the summer season at White's Hudson River Marina in the small community of New Hamburg, NY, on the Hudson River precisely

half way between the North River Manhattan docks of the Hudson River Day Line steamers and their docks in Albany, the state capital about 150 miles upriver. We were very, very late in getting in for the season. It had been a dreadfully cold and rainy spring, really no spring at all. The marina had trouble finding workers because the unemployment level was so low and the work hard. It was June before the weather permitted me to get my Mark I topside woodwork sanded and its annual three coats of varnish on, as well as the marina to find helpers and get the bottom sanded and painted, and the topsides cleaned, waxed, and polished. Finally the greatest day every spring came, and the yard picked her up off her jack stands, and drove her to the launching dock. After she had been motored out to her regular dock at the deep end of dock D right opposite the main entrance from the river into the marina, I went aboard to check things out and be sure there were no leaks. All looked well. I connected power lines to the 50 amp dock connection, and checked both air conditioning units to see they were working properly, and then checked the two banks of house batteries and the diesel's starter motor battery. All was well. By this time, it was after 5:00 pm, and I left for home, planning to return early in the next week to fill the water tanks and set up the dodger and bimini, and maybe go sailing, if wind and tide cooperated.

I had sailed a Cal 24 from 1973 to 1990 out of the Chelsea Yacht Club. It had been organized as a ice boat yacht club in the 1880s in the next town south of New Hamburg. It's a great club, completely devoted to sail boats only. No power allowed, save the club launch. Every spring it was my job to organize the layout of the boat owner's moorings which have to come out of the Hudson



every fall in the middle of October, because if left in the river over the winter, thick flows of ice will simply scoop them off the bottom and who knows where down river. I greatly enjoyed sailing out of that club, priding myself on getting off my mooring in the middle of the club field and out into the river always under sail alone. The Cal 24 had a 6 hp outboard, but I thoroughly despised the gadget, and loved sailing entire seasons without putting its prop in the water.

However, because club members had to haul the moorings out each fall and replace them into the mooring field each spring, the club had a limit on the size of boats members felt could be safely accommodated. That was set at 35 feet many years ago. There was a significant number of Catalinas in the club, all 34 foot and under. My daughters and I, and some members of the youth group of the parish I was then serving, had a number of lovely camping weeks trailering the Cal-24 to Lake George and camping on islands owned by New York State or cruising up through the lock canal to Lake Champlain (I broke my pelvis following off a military tank at an armory in St. Albans, Vermont, in 1975, but that is another story), but my wife decided the Cal was too claustrophobic for her, and we moved up.

We attended the January 1990 New York Boat Show and while I opted for a Catalina 34 on display, Sharon walked over to the new 42, and when I found her below sitting at the table with the expression of a cat who had caught a mouse, I knew this would be it. I could locate no Catalina dealer on the Northeast coast with a 42 available to inspect in the water and perhaps test sail. However, I did see a 1989 Catalina 42 advertised in the Sunday New York Times in early November, offered by a yard in Portsmouth, Rhode Island, just north of Newport, and by late November we had successfully bid on her. She was ours, and we renamed her after my doctoral dissertation topic. That's what you get when dealing with an early Church historian. Her size, though, meant leaving the Chelsea Club for White's Marina a few miles north, and 20 minutes from our church rectory, which distressed me because of the many friendships I had made at the club.

We picked up the boat the second week of June, 1991, and joined by our younger daughter sailed her first to Vineyard Haven, on Martha's Vineyard, where we found a lovely French cuisine restaurant for our first night of cruising. Then on to Nantucket for five days, where we were joined by our elder daughter. We left the girls behind after divine service on Sunday at the Episcopal church in Nantucket to find their way home (they were both college graduates by then) via the ferry to Cape Cod, while Sharon and I made our way up Buzzards Bay to the Cape Cod Canal, Plymouth, MA, and ultimately Booth Bay, Maine, returning to the Hudson Valley via Portland, Maine, Portsmouth, New Hampshire, New London/Groton, Connecticut (where we were nearly run down by a US Navy attack submarine in the channel on her way to sea), City Island, New York, and around lower Manhattan via the East River and Hell Gate, and up the Hudson to home. It was a wonderful first cruise "down East" which we have repeated numerous times since 1991. We later discovered Penobscot Bay in Maine while visiting a priestly colleague and his wife in Castine, and to this day confess it the best cruising area we have ever visited. Great winds and magnificent scenery, even with the famous Maine fogs (radar is very useful - I even used it to navigate successfully in Penobscot Bay when Loran signals petered out one year before GPS came aboard).

But the end of June 2019 had its own story! It seems that there was a small red plastic plug in the pump moving water from the large bronze thru-hull forward into the main cabin's air conditioning unit. For some reason, that plug, about the size of a standard wooden pencil, popped out when the boat was launched. It was a small flow of water, but when untended, of course, it did build up Friday through Sunday noon. As bad luck would have it, the automatic bilge pump jammed, and by Sunday about 1:00 pm an observant fellow boater at the marina called the office to report that Chalcedonian was about two foot down by the bow. Apparently, the after edge of the wing keel stuck on the bottom of the marina at low tide and pitched the bow down as the boat filled.

It seems that there was a small red plastic plug in the pump moving water from the large bronze thru-hull forward into the main cabin's air conditioning unit. For some reason, that plug, about the size of a standard wooden pencil, popped out when the boat was launched.



Safe Journey:

Sailing Through a Pandemic

By Mark Cole, *Fiddler's Green* #8 • C320

The 2020 recreational sailing season started off like no other in history. Humans all around the world have been impacted and many of us have spent the last few weeks “staying home, staying safe” as our Washington State governor requested. I, in no way, want to downplay the seriousness of this crisis by complaining about how it has impacted my free time spent on my boat, but I did want to document how C320 owners around the world have been affected by the amazing events of the

spring of 2020 as I hope we never experience impacts like this again. I also hope that everyone in the Catalina 320 family has stayed safe and healthy and the biggest hardship has been not being able to enjoy your boat as you normally would.

Washington State, where I live and sail, was one of the first states in the US to document a Covid-19 case. Our governor and medical community sprang into action and did a pretty good job of devising a plan to slow the

Mark and Dawne staying safe during a day sail on *Fiddler's Green*



spread of the disease. Good enough, I guess, that Frontline aired a special on PBS focusing on Washington State's response.

A central part of this response was the governor's "Stay Home, Stay Healthy" order. The governor declared a "state of emergency" on February 29th, but didn't issue his "Stay Home, Stay Healthy" order until March 25th. The order prohibited "all people in Washington State from leaving their homes or participating in social, spiritual and recreational gatherings of any kind regardless of the number of participants, and all non-essential businesses in Washington State from conducting business, within the limitations provided herein."

Included in the order are lists of "essential activities" and "essential businesses" and, fortunately for us boaters, essential activity #4 allowed "En-gaging in outdoor exercise activities, such as walking, hiking, running or biking, but only if appropriate social distancing practices are used." Since we have so many live-aboards in Washington state, marinas were on the list of essential businesses. It may have been stretching the rules just a little, but I considered boat maintenance

as an essential outdoor exercise activity and made regular trips to *Fiddler's Green* to do "boat yoga". I reasoned that I drove, alone, directly to my marina, which is an essential business, and spent the day, alone, working on my boat so I was following the governor's orders.

My wife and I even went for a couple of daysails. It was ok to congregate in a group larger than one if the members of the group were immediate family. So, we could sail, but we couldn't sail to a destination as all state parks were closed, marinas weren't allowing transient boaters in, we were required to "stay local" but not allowed to stay out overnight, even at anchor.

Two organizations in Washington State did a great job wading through the ever-changing government regulations, how they impacted recreational boating and how the boating community was responding. The *Recreational Boating Association of Washington (RBAW)* is a boater's advocacy group that enjoys a good relationship with state policy makers and was able to decipher the legalese of the almost daily guidance from the state. They sent out emails to members and kept their website up to date and chocked full of links to other

organizations helping to clarify the situation.

Anyone who has cruised in the Salish Sea, British Columbia or SE Alaska is familiar with the *Waggoner Cruising Guide*. The people that publish this guide have a tough job; they take it on themselves to cruise the area for months each year and visit almost every marina and boating attraction to gather accurate information about operating hours, facilities, cool stuff to do, contact information, everything a boater needs to plan a cruise. They have great relationships with these business owners so are the perfect people to track the status of regional boating facilities. They put together a table on their website showing "the open/closed, or open with limited services, status of major marinas and marine facilities, fuel docks, public docks, marine parks, and surrounding communities as this Covid-19 pandemic requires.", complete with three separate tabs for each of our cruising regions.

So, for the last week of March, all of April and May, we were pretty much just trying to stay healthy. The border between the US and Canada was closed; San Juan County, encompassing the San Juan Islands cruising grounds, was telling boaters to stay away; marinas weren't allowing transient boaters in; the state park system was closed including overnight usage of mooring buoys. What were boaters to do but work on their boats? We even had to do this while tied safely in our slips - boatyards and haulout facilities were closed, too.

Then, along came Phase 2 of our state's "Stay Home, Stay Healthy" plan. On June 1st, counties that met stringent pandemic reduction criteria were allowed to reopen certain businesses and activities. Among this first group was the state park system. We could now sail to a local state park and stay overnight on a mooring buoy or at anchor. We couldn't go ashore after the park closed as sunset, but things were looking up. As of this writing, the Canadian border is still closed, but the park system is open and many of the local marinas are either fully open or open with limited facilities. Through it all, RBAW and Waggoners is keeping us updated on where we can go on our boats.

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That is the story from Washington State, but I thought it would be interesting to see how this pandemic has impacted our C320 family around the world. I sent a few questions to a handful of owners I have seen actively participating in the C320 blog and got back some interesting replies. Here is how some of our other owners are fairing.

1. How has the Covid-19 pandemic effected your boating experience so far this year?

“Stopped it completely!” –*Graeme Clark, Mylor, Cornwall, UK. Jaskar #366*

“The pandemic has had some effect in Maryland. The Maryland portion

of the Chesapeake was closed to recreational boating for several weeks beginning in March, but that restriction was lifted in mid May.” –*David Allred, Rose Haven, Maryland. Romance #712*

“Races & club cruises cancelled.” –*Diane Fowler, Cape Coral, Florida. Windy City #948*

“Most of our local and regional sailing destinations have been closed—Catalina Island, Newport Beach, Long Beach. Yacht clubs closed, with no visiting yachter facilities. Vessel Assist running on skeleton staffs; affected us when we moved our boat from Long Beach to Dana Point. Had engine problems and waited several hours for Vessel Assist to arrive.” –*David Veeneman, Dana Point, California. Ticket #131*

“We were some-what limited due to ports being closed for access however

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we had access to the boat and were able to get out. Sailing was limited to family initially.” –*Greg Baklund, Des Moines, Washington. Paradise #288*

“We are members of a club, Sidney North Sannich Yacht Club, and we have not been able to have our regular rendezvous this year. We have a social cruise in July which has been cancelled as it is all about fun on docks, shared meals and happy hours—too close personal contacts to be appropriate for now. Our long cruise, 30 days in mid June to mid July, may go ahead in a limited way.” –*Greg Flanagan, Sidney, British Columbia, Canada. Hoop Dancer #1076*

2. How did your local government handle personal movements? “Stay-at-home” order; limited lock down; complete lockdown?

“We are not allowed to spend the night anywhere other than home. I live too far from my boat to be able to day sail.” –*Graeme, UK*

“In MD, we were on stay-at-home orders except for “essential” purposes: medical, food, alcohol. In the burbs, there was not much policing of personal movements.” –*Warren Updike, Middle River, Maryland. Warr de Mar #62*

“Although the state encouraged people to stay at home, there was no mandatory order.” –*David, Maryland*

“We feel very blessed to live in Florida. We are allowed to go boating as long as we do not have more than 10 people on board and stayed 20 feet apart. Beaches were closed, but think they are open now?” –*Diane, Florida*

“So Cal had stay at home orders, but they were loosely enforced. San Diego shut down their harbor to recreational boating. Dana Point remained open to boaters, with restrictions on dock parties and gatherings. We were able to sail without restriction.” –*David, California*

“WA state and our county issued “Stay home, stay healthy” order limiting travel initially.” –*Gregg, Washington*

“Local government discouraged social activities of any kind, encouraged to stay close to home, recommended against any unnecessary travel in the province,

Local government discouraged social activities of any kind, encouraged to stay close to home, recommended against any unnecessary travel in the province, and required 14 day self isolation on return from anywhere outside our local area.



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and required 14 day self isolation on return from anywhere outside our local area. Many businesses were closed such as restaurants, however essential services were broadly defined and allowed to be open as long as physical distance (2 metres—6 feet) could be maintained in the store. People have been very responsible with the limits and the province has been successful in having minimums cases and deaths. The health system was always ready and maintained over capacity of beds available.” –Greg, BC Canada

3. Where you able to get to your boat? Was your boat on the hard or in the water? Could you access your marina?

“Boat was on the hard when lockdown started. We had to cancel a booked one week home rental during which I had planned to prep the boat for relaunching.” –Graeme, UK

“Boat was on the hard, marina office/ services were closed, but we were not restricted from getting to the boat which was/is on the hard.” –Warren, Maryland

“My marina was open so that folks could visit their boats, both in the water and on land. I was able to do all my regular maintenance while the boat was on land in April. However, the marina requested (and continues to request) that people wear face masks on all docks and walkways.” –David, Maryland

“My boat, Windy City, lives on a sailboat access canal in Cape Coral. I had total access to the boat at all times and even got her professionally waxed and the bottom scraped during April.” –Diane, Florida

“In SoCal, boats stay in the water all year. There were no restrictions on getting to the boat, and the Dana Point marina remained staffed. Long Beach marina pretty much shut down, except for sending out monthly slip rent bills.” –David, California

“Mild climate in the northwest allows us to keep our boats in the water year round. Our local marina remained open to tenants only. Access was not a problem to get the Spring projects completed.” –Gregg, Washington

“My boat was in the water at my berth. The marina office was closed to the public (staff were working inside) and transactions had to be performed by telephone. The docks were open and boats were fully accessible to their owners or repair/service work crew. Transient boaters were not allowed in except in an emergency.” –Greg, BC Canada

4. If your boat was in the water, could you use it? Could you access it to do projects aboard? Could you go sailing?

“We were due to relaunch onto our mooring in Poole Harbour, UK, on 27th March after spending the winter on the hard, but our club closed the yard two days before and we’ve had no access since and no inkling of when it will reopen. Fortunately I had already taken the helm wheel home to work on the auto helm, and took the opportunity to order and fit a leather glove from a supplier in Cornwall. It’s gone really well and I’ve learned a new skill!” –Dennis Cookson, Poole, Dorset, UK. Catalina #577

See the included photo of Dennis’ project!

“Sailing as a recreational activity was

restricted: could not raft, dock at marina or other. Boating only allowed for “essential” activity (see #2) Fishing for food was allowed.” –Warren, Maryland

“Yes, yes, yes. We spent 2 weekends aboard - dropping hook in fabulous, picturesque coves and bays. Marinas closed.” –Diane, Florida

“Yes, we could work on our boat and take it out.” –David, California

“We just love our 320 and have owned it just over a year and have had plenty of projects to get it just how we want it. Spring projects included replacing the two water pumps and replacing mixing elbow and hoses (appreciated Mark Cole’s Mainsheet mixing elbow replacement article), new halyards and sheets. As the weather cleared we were able to get out on the water, perhaps feeling a little guilty for having such joy while not seeing hardly anyone out. Other ports and state parks were closed for over-night access but we could anchor out.” –Gregg, Washington

“Yes we could use our boat, to work on or take it out. Very limited places to go as small coastal towns, marinas, provincial, and national parks were closed to boaters. We could anchor



Dennis Cookson’s Covid project

though and a few marinas did remain open to transients on a limited basis where social distance could be maintained. These very limited “open” marinas used telephone and Internet to interact with clients, there was no service on the docks from marina staff, and washrooms/showers were closed.”
–Greg, BC Canada

5. Have you changed your plans for summer cruises? Do you anticipate using your boat much this summer?

“The chances of lockdown relaxing enough for any sailing is looking poor. At this stage of the season the cost of de-winterising, lifting in and hauling out at end of the summer is not going to be very cost effective. I’ve just about written off the season.” –Graeme, UK

“Very recently, recreational boating has been allowed. We had only one planned cruise that was skipped. Boating season in MD now seems to be open with restrictions as no rafting.” –Warren, Maryland

“The pandemic and related measures have had pretty minor effects on me because I am retired and don’t do a whole lot, anyhow. I think the main effect this summer will be on cutting down on the normal socializing at the dock such as cookouts together, gathering in someone’s cockpit for drinks, and such. I am not aware of our marina or any other marina restricting visitors and there are now no restrictions on any use of the bay. I expect to use my boat as much this summer as I have in the past, but like

several other retired folks on our dock, I expect to focus more on week-days than weekends.” –David, Maryland

“There was never much sailing in SW Florida in the summer anyways. My boat has all the canvas removed, a dehumidifier runs inside with fans, and we are gone for the summer in our travel trailer.” –Diane, Florida

“Summer cruise season has pretty much been cancelled. We cruise with our yacht club, which cancelled all events. We will probably sail over to Catalina on our own once things open back up, and we may sail to Ensenada, Mexico in the fall if we get a good weather window. We will mainly day-sail and visit So Cal yacht clubs as things open up.” –David, California

“We don’t see any limitations with destinations. We anticipate businesses and restaurants to be limited. This summer we plan to cruise to the San Juan Islands and hopefully the Canadian Gulf Islands as restrictions are lifted.” –Gregg, Washington

“Yes, we will use our boat as much this year as in the past (have already been out). BC is now gradually opening up. The provincial and national parks are now open. We will likely stay closer to home on short, up to a week, outings as encouraged by our Coast Guard. The fear is the extra difficulty with rescue under COVID-19 and that small communities have limited healthcare facilities for visitors.” –Greg, BC Canada

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Diane Fowler enjoying social distancing the sailor way

So what do we do?

To sum up, our Washington State governor put it nicely; “Recreate as close to home as safely as possible, ideally by yourself, or with only limited folks from your household. Outdoor recreation is still key to mental and physical health, we just need to do it differently for the safety of everyone.”

Stay safe, stay one fathom apart, and wash your hands!

Close Encounter:

An Easy Method to Approximate Cross Track Error When the Wind Won't Let You Sail Directly to a Mark

By Ed Brown, *Celtic Voyager*, Catalina 445, #85

Okay – admit it – we’ve all been there! You’re under sail close to the wind - the sun is shining, the seas are calm – this is what the sailing life is all about. But the wind just won’t let you head directly to that distant mark. What to do? Drop the sails and fire up the iron genoa? Or keep sailing knowing you’ll miss the mark?

Assuming that there are no navigational hazards to consider (and that’s an important assumption!), the question is a simple one – how far off course will I be if I shun the engine and continue sailing? If your navigation system includes a calculation of cross track error (many marine systems actually are adaptations for aeronautical systems) you’re all set. If not, then you have a calculation to do. But don’t worry – it’s a simple one. I use the following definitions:

“course error” – the angle between the course I can sail and the bearing to the mark

“track error” – the linear distance between where I’ll end up and the mark

And the answer couldn’t be simpler:

Track error = (course error) x (distance to the mark)

Unfortunately, there is one complication – most people would measure the “course error” in units of degrees. But to use the formula above, the course error must be measured in a unit called radians. Don’t worry – it’s not as bad as it sounds.

One radian is equal to about 57.2 degrees but I always round it up to 60 to make the math easy – so divide your course error (in degrees) by 60, round to the nearest tenth and away you go! For example:

Course error (in degrees)	divide by 60	approximate course error (radians)
5°	1/12	0.1
10°	1/6	0.2
15°	1/4	0.3
20°	1/3	0.3
25°	0.416	0.4

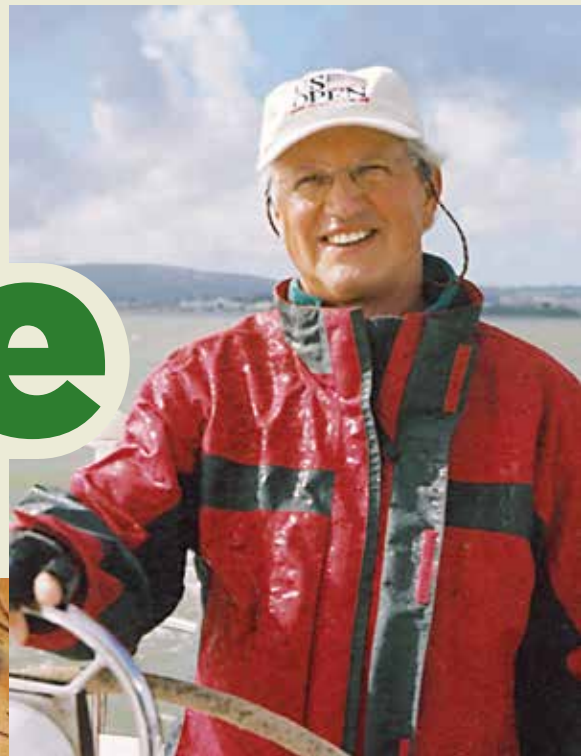
Don’t worry too much about precision – after all, this is only an approximation method and don’t try to memorize that table – it’s just for illustration. Remember the formula and you’ll be fine. Let’s take an example. Suppose you’re heading to a mark that is 8 nautical miles away. Assume that the bearing to the mark is 45° but you can’t sail any closer than 55°. That’s a course error of 10°.

So divide 10° by 60° to get a course error of 1/6 radian and round it up to 0.2 radians. Multiply 0.2 by 8 nautical miles and you find that after sailing that far, you’ll be about 1.6 nautical miles from the mark. Actually, the correct answer is more like 1.3 nautical miles but this is just an approximate method to help with decision making.

Now it’s decision time – do you fire up the engine or keep enjoying the sail and end up 1.6 miles from the mark? Ah, if only life were as simple as an equation!

Crew Morale

BY BILL MARTINELLI • C470 • COMMODORE



CSA Produce. Photo by Julie Lynn Olson

Cruising tip: we added a cellular router with external antenna a few years ago and this has increased our enjoyment and use of the internet.

Mostly by sheer luck we are once again in our usual cruising grounds for this time of year. We left La Paz on April 1 and sailed up into the Sea of Cortez. There have been scattered port and island (national park) closures in Western Mexico but we have managed to avoid them so far.

Cruising around the Loreto area for the past two months our season has been pretty typical so far except for vastly reduced socializing. Several of our usual cruising companions left Mexico early for a prolonged “summer break” (many boats either dock or haul out so that owners can avoid the peak of hot months/hurricane season).

Over the past six weeks we’ve mostly been stationed in a lovely bay on Isla Carmen. Conveniently we are about nine miles from a powerful cell tower and the town of Loreto is less than a two hour motoring excursion. Cruising tip: we added a cellular router with external antenna a few years ago and this has increased our enjoyment and use of the internet.

Small Navy boats have visited occasionally to popular anchorages in this area with a loudspeaker that

announces (in English) no congregating and no beach frolicking. Tour boats are prohibited from going out. We have been seeing a few large charter yachts. Locals may go fishing to feed their families. We had a group of eight local guys doing that here about a few weeks ago, fishing in shifts, camping over 2 nights and leaving with full coolers.

For several weeks visitors have not been allowed into Loreto (capital of Las Californias from 1697 to 1777) for shopping. Masks and social distancing encouraged. Flights into the small international airport have been much reduced and restaurants have been limited to takeout only. This town of about 20,000 population was Covid19-free for several months although recently some cases have emerged. Presently in mid-June there's beginning to be some gradual re-opening of businesses such as restaurants allowed to operate at 30% capacity.

Pretty much all the time, food is top of mind here on *Voyager*. To replenish our stock of provisions, especially treasured by those of us fresh fruit/veggie junkies, another cruising couple have found an English-fluent local woman (out of work kayaking guide looking for income) with a car who will receive emailed orders. She shops in town (grocery, hardware, and chandlery) and delivers to a small panga dock where port officials will allow us to dinghy in and pick up. And drop off our trash so we don't have to store or burn it. A 20% surcharge for her service, and she will visit multiple vendors, it's so easy and reasonable.

Stores seem to be well stocked - we can get most of what we ask for - the average local doesn't have spare cash to hoard items. Produce maybe not quite as perfect as we are used to this time of year, perhaps deliveries from wholesalers might be reduced from usual. Just means we need to be more diligent to use up things before they go "off." Liquor sales suspended here since Easter time, and several Mexican beer factories shut down. Not a problem for us, we don't drink like we used to and have adequate supply aboard. Soda Stream machine with tonic mix is one of our favorite galley gadgets.

We've also received delivery of some San Javier (historic mountain village about 20 miles west, home of the second mission in the Californias) CSA veggie surprise boxes. About a dozen farms contribute to the boxes, every week it's a little different combination that encourages some creativity in the galley. Farm fresh eggs and goat cheese also available. It's a once a week delivery that also serves many in the land-based expat community.

The cruising community continues to work together to help one another. Boats are taking turns with trash

drop-offs and food pickups so that no one has to shop too often. One friend has delivered takeout pizza to us, and others sailed up from further south last week with some spares flown down from USA and goodies from the Cabo San Lucas Costco.

Our plan, as in previous years, is to hang around this area until early July. Then sail back 120 miles south to La Paz and park *Voyager* in the marina for at least a few months while we drive home for a bit.

We shall see! Hopefully by the time you read this, life has become a little more normal.



SUP at Isla Carmen, Sea of Cortez. Photo by Christine Dowler.

The cruising community continues to work together to help one another. Boats are taking turns with trash drop-offs and food pickups so that no one has to shop too often.

CHASING STILLNESS

BY NEIL CARTER • CM440 – *RED THREAD* HULL #33

Her shoulder is into it now, and I can feel through the soles of my feet that our CM440 is perfectly balanced. The soft vibration of *Red Thread* driving through the waves moves up through my legs and to my hands on the helm, where I stand alone in the encompassing darkness of night, 5NM east of the Tasmanian coastline. We're riding the continental shelf, and my depth instruments flicker occasionally to 480 feet and then cease reading altogether. The shelf drops to more than 1,600 feet here, and if we stay our current course we'll arrive in Antarctica in 10 to 12 days. I hear the soft "babbling brook" of turbulent water moving around her skeg-hung rudder and bubbling up across her wide transom. The sound tells me we're moving at over six knots, closer to seven based on the pitch. I've missed moments like this and didn't quite realize how hungry my soul was for us to return to sea.





Dawn breaks over the rocky islands of the infamous Bass Strait.

If we step back a moment, to early December 2019, Jessie and I were madly preparing Red Thread for this trip to Tasmania, Australia's southerly island state.

She had demanded her fair share of TLC after we arrived in Melbourne in January of 2017, after crossing the Pacific. We'd slowly and surely gotten her to a place where she was ready for another, if brief, adventure. In the intervening years, we'd managed to get permanent residency; welcome a baby boy, Sawyer, into our little family; and determine unequivocally that Melbourne's Port Philip Bay was not our bag of chips. We longed for three-dimensional landscapes where cliffs plunge into dark green sea and a labyrinth of coves beckon for us to explore them and set anchor in solitude to the bird song of dusk over a cup of whatever alcoholic beverage we had to hand. We were committed to doing absolutely everything within our power to make it to Tasmania, where we'd heard these experiences awaited.

Our maintenance log tells a harrowing story for our finances. Our

wallets quiver in fear even still. A new 96-gallon fuel tank flown from the United States; sail repairs; extensive engine service; a laundry list of new, replacement, and spare parts that would make any Tolkein fan reminisce of their first attempt in reading *The Silmarillion*, essentially a litany of events that dries your eyes and makes your head throb. And that doesn't even include the cost of importing her into Australia (see Mainsheet Fall 2019 issue). I'll spare you, but as we're no strangers to long-distance sailing preparation, it was about what we'd expected, give or take a few boat bucks.

We'd set a semi-flexible date to depart Melbourne and had given ourselves about a week's worth of leeway to wait for a weather window to cross the infamous Bass Strait, a 135NM expanse of water that separates Australia and Tasmania. The Bass Strait stretches 270NM east to west along Tasmania's northern coast, and it is there the Pacific and Indian Oceans converge, forcing their mighty waters through the shallow strait, which only averages 200 feet in depth. We'd had some last-minute crew

changes and were setting sail with a pair of inexperienced, landlubberly, but up-for-any-adventure hands who could assist with cuddling our 10-month-old, when Jessie and I were both needed for sail configuration changes or emergencies. Sally is the genuine article: calm, never complains, happy to help out, flexible, and doesn't get riled up or scared very easily (at least not outwardly!). I can teach just about anyone to sail, but I can't make you a pleasant human in close quarters.

After neurotic weather watching, and the inevitable late night of final projects, our window arrived on December 15th. We set off just after sunrise and made a rhumb line for Port Phillip Heads some 30NM south, motoring into light headwinds and choppy seas. Upon entering the Bass Strait, we were greeted by the forecasted large rolling swell and variable light winds that required us to motor until early afternoon. All of the crew—sans Captain—were seasick, including our baby boy. There was a serious discussion of turning into Western Port and seeking refuge. However, after a feed, a nap, and fresh wind filling in 90 minutes later than

expected, the state of the crew (the little one, in particular) began to turnaround. The motion of a boat under sail, riding naturally with the conditions, is vastly superior to the rolling, yawing, and diesel drone when under power. Red Thread was in her element.

The crew recovering, I stood watch late into the night. Though it was summer, I was head-to-toe in synthetics and fleece, shrink wrapped over the top with my full foul weather gear, life jacket, and tether. The wind carried sea spume and icy cold rain that hit my exposed face laterally like a tattooist's needle. I was shivering, alone, exhausted, over caffeinated, and anxious. It was absolutely marvellous. As the night wore on, I hand-steered to make the most of the wind and to keep Red Thread safely off the lee shores of the Glennie Island Group and to safely traverse a shipping channel south of Wilson's Promontory. The stars were glittering diamonds above our mast, with the southern cross prominent and sparkling, indicating a high atmosphere jet stream. At 0330, I roused Jessie to take over. I was spent,

and sunrises at sea are her soul food. She will happily admit that she's greedy and takes them all!

We heard almost nothing about Flinders Island, one of two larger islands at either end of the Bass Strait (the other being King Island) from Melburnian sailors. It left us uncertain as to what we would discover upon arrival. Thirty-six hours after leaving Melbourne, a welcome wagon of dolphins crisscrossed our bow on the way to a mooring ball managed by Marine and Safety Tasmania in the lee of Prime Seal Island, 5NM west of Flinders Island. We had successfully transited the Bass Strait and enjoyed a very mediocre rosé to mark the occasion!

To say Flinders Island is a well-kept secret, a barely known sailor's delight, is an understatement. We visited four anchorages over seven days while we waited for our next weather window, during which we occupied ourselves with hikes the Strzeleki National Park, hiring a car to drive the island, and making a memorable stop at the Furneaux Distillery for lunch, where a

fine bottle of whisky was added to the good captain's reserves. This is a place not to be missed and the adventurously minded could easily spend a month moving around this stunning island full of charming people, if willing to watch the weather and move at Mother Nature's command. Conditions change swiftly and fiercely here. Watch the tides in Lady Barron if you go. Our dinghy had the misfortune of floating under their small pier and our trusty outboard took a dunking. Small misfortunes make the sweetness of an adventure more delicious in the retelling.

After waiting out a biblical storm that swept through the southerly ocean—a force 9-10 that stretched over 1,000NM from Antarctica to the southern coast of Tasmania—we set off for an overnight sail to Wineglass Bay. An uneventful start (other than to say it's worth being cautious traversing the shallow eastern pass from Lady Barron) turned into one of the most wonderful night sails we've had. A gentle NE breeze had us on a broad reach across Banks Strait, backing slowly over the course



Our crew ventures ashore to stretch our legs beneath the Strzeleki Peaks on Flinders Island, while *Red Thread* rests peacefully, the only boat in the Trousers Point anchorage.

of the afternoon and into the evening. Configured wing-on-wing, we continued south into the night. The forecast called for a southerly by mid-morning, so speed and course were major factors to ensure we arrived safely. This is the nature of coastal sailing...either you go far offshore to avoid land and shallow water effects on conditions, or you run-and-gun your way at every window to narrowly arrive in safe harbor before a foul change puts you in a hurt locker.

And this brings us back to where we started this sailing yarn. Throughout that night, I employed every racing tactic I learned as crew aboard a J-105 in Seattle, Washington. I spent the night perfecting every trim, harnessing every puff of breeze and leveraging every particle of knowledge I knew about Red Thread to eek each tenth of a knot out of her given the idyllic conditions. She was so well-balanced that my sleeping crew had no idea we were averaging 7 knots in 15 to 20 knots of wind. I could sense her secret whispers through my hands and feet, and I trimmed her, balanced her, and whispered back to

her all night in beautiful harmony. At two o'clock in the morning, with no moon and a light haze in the clouds that obscured most stars, a puff of breath that wasn't the wind caught my hyper-focused attention. Then a second. And a third. I looked astern to discover three lime-green torpedos alighting from behind to skate along Red Thread's starboard side toward her bow. The magic of bioluminescence just miles off Tasmania's eastern coast illuminated the dark ocean, as we rode the continental shelf, and a pod of dolphins joined our spritely ride. More joined in on the fun and began diving beneath Red Thread's bow and setting off our shallow depth alarm so frequently that, well away from any hazards, I turned it off for a short time to remove the distraction. I woke the adult crew, as only a masochist wakens a slumbering infant, and together we shivered in the cold and revelled in the moment in inspiration that only seafarers can truly know.

These moments are when the millstone of my analytical mind grinds to a halt and I finally find peace. My

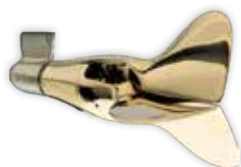


Jessie cuddles our tiny seafarer, lost in the moment and grateful to be back on the ocean.

lungs fill with the salt air until my ribs crack, and I feel a tingle in my shoulders from breathing in life. I'm not a spiritual man, but these are the moments I feel closest to whatever God is. Every fiber, every essence of my being, is alert. I am alive. I have a partner I couldn't have dreamt up alongside me for this adventure. I have a son whose soul I can fill with awe-inspiring moments like these. And I have freedom in these 44 feet of fiberglass. Truly, I am alive.



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CATALINA 470 NATIONAL ASSOCIATION

Charging Onward!



C470 Association
Technical Editor
Joe Rocchio

Onward (C470-126) was anchored in Manhasset Bay NY preparing to head down the East River in September 2019. The Fischer-Panda generator (FPG) was purring along topping up the batteries for our morning departure when I heard a change in its sound. Then I noticed that there was no longer any AC power. Immediate troubleshooting indicated the something in the alternator/power conditioning system had failed. This was a sad end to an idyllic summer of cruising New England.

With a dead generator, we set off for a thankfully quick and uneventful trip to Baltimore and a pause for our annual medical checkups. I took this opportunity to spend more than a week conducting painstaking electrical system tests, step by step, to troubleshoot all the electrical components. I could not find a fault until the final test that confirmed the worst: the windings of the alternator were shorted. About two weeks earlier in Nantucket harbor, the FPG ingested several jellyfish and went into a high-temperature shut down. When the filter blockage was removed and raw water circulation reestablished, the FPG again ran normally for the next week or more. During a routine check while at Manhasset Bay, I had seen evidence of liquid residue around the coolant tank cap. I replaced the cap but apparently there had been enough of an undetected leak to cause the windings failure weeks later.

Replacement of the alternator would require removing the FPG from the boat for access and a repair cost more than half the cost of a new generator. I decided this was a poor investment and I started a search for a new unit. The Annapolis Sailboat Show presented an opportunity that turned out poorly when it was flooded out during our visit. We waded about looking at abandoned displays but were unable to talk to any representatives. Subsequent research via the internet and discussions with a number of experienced cruisers guided my decision.

There were many factors in consideration: output, size, physical design, simplicity of system, ease of maintenance, availability of parts and service, reputation for reliability and maintainability, sound level, experience of owners known to me. The primary use for *Onward's* generator is recharging the batteries and producing hot water when at anchor for extended periods. A few days a year, it is used to run the HVAC for heating or cooling. From the AC load table below, the normal max load is about 4.2 kw. The 8-kw output of the FPG had been too large to sufficiently load the engine during normal use to assure carbonization and glazing did occur, so a smaller unit would do the job and load the diesel engine better.

Load	AC A	AC KW
Xantrex Freedom 2000 100 A inverter / charger	20	2.4
Water heater	12	1.8
Mermaid 12000 HVAC	9.5	1.14
Mermaid 16500 HVAC	12	1.44

The FPG had several irksome design factors: (1) all operational electrical connections were located beneath the oil dip stick so it was impossible to prevent them being coated with oil; (2) the alternator was located beneath the coolant reservoir tank (the source of damage due to the undetected cap leak); (3) compact design and complexity that made component access and maintainability difficult.

The most important criteria for me were: simplicity of design, a more sensible layout, and ease of access and maintenance. Based on these considerations, I decided to install a new 5.3-kw M673LD3G Northern Lights generator (NLG). This unit has an air-cooled alternator and runs at lower rpm (~1800 vs 3600) for less noise and vibration. It has very simple and rugged electronics and power conditioning. All components are sensibly laid out and readily accessible.

The turn-key cost estimate (removal of existing unit and installation of a new unit) was just about double the purchase price for the generator alone. As I had done the installation of the original FPG, I opted to do it myself. With the new NLG scheduled for delivery, the forward berth area was prepared by removing the mattress, bed board and internal storage components. Then the fuel lines, control lines, AC power, 12V power cables from starter, exhaust, and raw water lines to the FPG were disconnected as all could be used in the new installation with little modification.

Once the FPG was unbolted from the mounting struts, the spare genoa halyard was used to remove the FPG in four stages. (1) The lift line was run down through the forward stateroom hatch. A snatch block tethered to the port shroud anchors was used to adjust the lift angle. The electric halyard winch easily lifted the FPG out and set it on a piece of heavy cardboard with a thick towel under so that it could be slid aft on the deck. (2) The lift line and snatch block were then repositioned using the forward starboard salon hatch and used to slide the FPG aft and lift it over the door sill onto the salon deck. (3) The lift line was then repositioned to run through a turning block attached to the boom. With the center window



Sound enclosure for M673LD3G test-assembly in compartment. Photo by Joe Rocchio



M673LD3G completely installed in compartment. Photo by Joe Rocchio

I want to thank Charlie McNamara (*Passion IV* – formerly *Lady* – C470-119) who had gone this route before and was an immense help and resource.

of the dodger removed, the lift line was run through a snatch block to slide the unit to the base of the companionway stairs and up onto the seat-level of the cockpit. The snatch block was moved as needed to give optimal lift angles at each stage. (4) The turning block on the boom was then repositioned to lift the unit so the boom could be swung to move the FPG off the boat and onto a dolly on the floating pier. With the lift line originating from the masthead, one person could easily push it about. This process sounds a bit complex but went smoothly. When the new unit arrived, it was moved aboard to the forward state-room by the reverse of this process.

I thoroughly cleaned and organized the interior of the now empty compartment before installing the NLG. The sound enclosure is a separate structure that attaches to the generator mounting pan. The aft and forward panels are connected by L-bar rails so the port, starboard and top sides can all be easily removed. It is only slightly larger (28.5" L x 20.9" H x 19.5" W) than the FPG enclosure but the spacing was tight. The first step was to assemble the enclosure inside the compartment to get the placement exact and determine how the aluminum mounting struts would need to be modified to adapt to the four vibration absorbing mounts on the NLG pan. The enclosure was then removed. Then the aluminum struts were removed to allow new mounting holes to be drilled

(slightly oversize for minor adjustments) to position the NLG correctly.

The NLG was lifted and partially lowered into the compartment so the aluminum struts could be attached to the vibration mounts loosely so the struts could be matched to their mounting holes and fastened down. Great care was needed in drilling holes and selecting 5/16" SS lag bolt lengths because the port strut that is molded into the hull varies in thickness due to the hull contour. Once the NLG was bolted in place, the aft end of the sound enclosure was installed. The control panel wiring, exhaust hose, AC power lines, and starter battery lines were connected. Fuel lines were attached to the feedthroughs on the starboard side of the base. An unexpected challenge was that the fuel feed and return fittings were 5/16-37T elbow bulkhead unions,

hydraulic fittings that were hard to find adapters for. With the forward sides of the sound enclosure attached, the seawater intake line was connected and the enclosure was ready to close up. The main access panel is on the starboard side and the twist-lock latch enables it to be easily removed to get complete access for service: oil dipstick, oil filling port, fuel filter, fuel pump (if priming/bleeding is needed) and injectors (if bleeding is necessary), coolant overflow bottle. It is also possible to easily remove the top and port panels with twist-lock latches.

A thorough systems check was followed by addition of oil and coolant – and *Onward* now had a new generator! The sound level of the NLG is just as quiet, perhaps even quieter, than the FPG. Nice! –Joe Rocchio, jjr@onward.ws

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Battling Seaweed



C400 Association
Technical Editor
Tom Sokoloski

Depending on where you sail, you may be in pristine, clear water, or you may be in something far less. In New England, the water quality varies quite a bit, from dark and brackish to almost gin-clear. And then there is the seaweed,

floating on the surface, suspended below the surface, and anchored to the bottom. The stuff suspended below the surface is what bothers me the most. Most boats are equipped with engine cooling water strainers, and for good reason. However, very few boats I've seen come with strainers for other water intakes. After spending a few hours trying to diagnose a blockage in the head intake line, I figured there had to be a better way. Beginning three boats ago, I have installed

Jabsco Pumpguard in-line strainers for each head, just after the seacock. I'm sure other brands would work, but I like the ability to glance at the clear bowl of the strainer, and if there is any accumulated crud, I can unscrew the bowl, clean it out, and reinstall, all within a minute and with no tools. One item of caution: the mesh screen and o-ring do not float (don't ask how I know that!).

In the photo, you can also see new dark blue engine vent hoses. The flimsy white plastic vent hose that came with the boat has been crushed, repaired, cut, repaired, rusted, and repaired many times. Enough was enough. Someone on the C400 Groups.io list server suggested Trident #481 HVAC 3" Duct Hose, and it is so much sturdier than the original. It comes in 50' packages, which turned out to be the exact amount needed. As I pulled out the old hose, I replaced it with the new. A dozen or so extra-long zip ties were also needed for the job.

We use our dinghy quite a bit (the family car when we are cruising), and I never really felt there was a convenient, sturdy place to tie the dinghy off the stern. Of course there are the normal stern cleats, but they are quite a reach when you are bobbing around in a dinghy. I wanted something easier to reach from both the dinghy and the swim platform. The transom seemed like a perfect spot, below and just inboard of the backstay chainplates. I purchased two 8" solid SS cleats, and made 1/4" aluminum backing plates for each of them. Access to that area of the transom is not too bad once you remove the lazarette storage bags. A couple of bolts, washers, some caulk and the job was done. I don't plan to use those cleats to tie the boat to a dock, but for a dinghy or two or three, they are more than adequate. **—Tom Sokoloski, Juniper #307, Noank, CT, tomsoko@gmail.com**



Vent Hose + Strainer

I like the ability to glance at the clear bowl of the strainer, and if there is any accumulated crud, I can unscrew the bowl, clean it out, and reinstall, all within a minute and with no tools.



Transom Cleats

Stuffing Box



C36 Association
Technical Editor
Pre Mk II hulls
Leslie Troyer



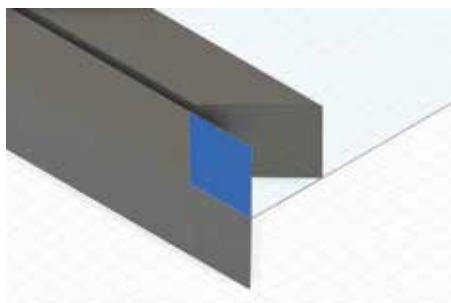
C36 Association
Technical Editor
Mk II hulls
Chic Lasser

This is going to be a quick one this month – to write up, and to accomplish. Most of us know about the stuffing box that needs to be adjusted periodically on the propeller shaft. Did you know there is another stuffing box that occasionally needs attention? This one is on the rudder, to keep water from coming in the boat when healing over in a good breeze or when the stern squats from too much power.

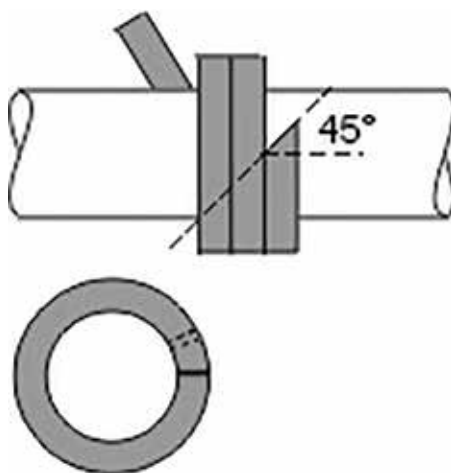
So how often do this need to be looked at? The easiest time to tell is when motoring at speed, especially with a fiberglass RIB

and outboard hung off davits at the rear. Open up the aft lazarette (remember this is MKI boats I get to discuss), and remove the two center floor sections. This should give you good visibility to the rudder shaft stuffing box. I've attached a Catalina Drawing of it courtesy of Stu Jackson on the C34.org site. As you can see it is the only bronze thing with three bolts around the rudder shaft.

If water is coming in – you can try to tighten the three bolts 1/4 turn each to see if that stops it. If not repeat until it does or the steering becomes stiff. If you can't stop the ingress of water it's time to repack the stuffing box (after 35 years I think it's also time). You need a 1 foot length of 3/8 packing flax (CatalinaDirect.com sells 2' for ~\$10 so share with a friend with a 30, 34, 36 Catalina).



Unlike the prop shaft stuffing box, you have fairly good access to remove the old packing (unless you have a below deck autopilot with the tiller arm down in the way). Remove the three bolts, lift the cover off and remove the single row of packing material. Don't worry about flooding the boat with water, this point should be above the waterline while tied to the dock.

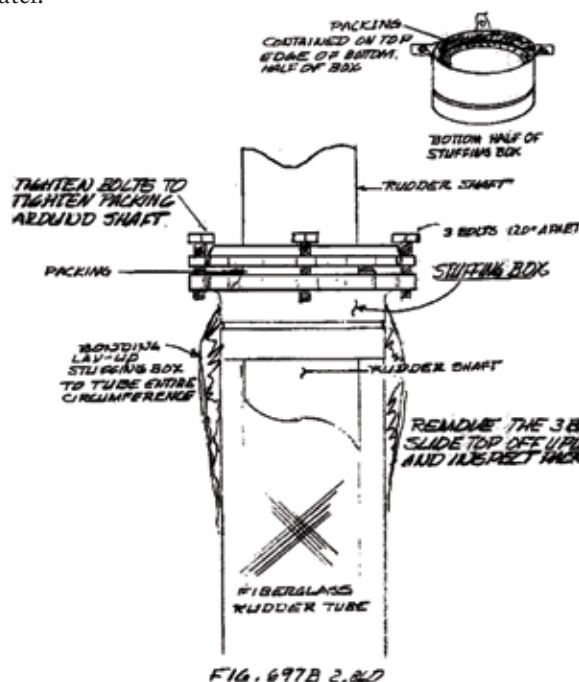


At this point before starting to re-assemble things, grab the lower portion of the stuffing box and try and twist it. You are checking to see if it is still attached to the fiberglass rudder tube. If not you'll need to reattach it. (Mine is currently loose). More on this later.

Now using your shaft as a guide, wrap the packing flax around the shaft, keeping the wrap horizontal. Now cut across both pieces at a 45 degree angle to horizontal (diagonal – see photo). To make things easier take the pieces and place the complete circle on the edge of a piece of paper, with the point hanging off as shown in sketch. Place a cutoff from the packing next to the first with the point just touching the edge of the paper (again see the sketch). Using the corner of the paper and where point the two pieces connect cut off the blue trapezoid shape. You'll end up with a piece that wraps around

the post perfectly. Note when cutting the packing material use a razor blade keeping it flat and perpendicular to the cutting direction, use light strokes, you don't want to use just one point of the blade. Place this in the lower stuffing box. Let the top portion push the flax down securely. Lightly tighten up the three bolts securing the top and bottom of the stuffing box, making sure there is not too much drag on the steering. Go out and redo the test for leaking above, when it stops leaking, have a beer when you get back to the dock – good job.

Now if your lower stuffing box has come loose from the rudder tube it will need to be reattached before replacing the packing material. Now I'm not a proponent of the Devil's Glue (aka 5200) but I think this is a good area for it. Clean the interface between the lower stuffing box and the rudder tube as best you can, finishing with a good solvent like acetone. Then carefully and sparingly run a bead of 5200 around the lower stuffing box in the corner where the stuffing box meets the top of the rudder tube. You don't want 5200 to ooze down and glue the rudder shaft to the stuffing box and rudder tube!! Give it a day to setup, then follow the instructions above on repacking the box. **—Leslie Troyer, leslie@e-troyer.com**



CATALINA 36/375 INTERNATIONAL ASSOCIATION

(continued from previous page)

Galley and Head Faucet Replacement

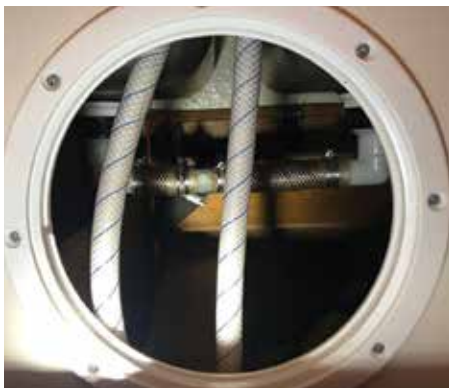
Special thanks to David Robinson for submitting this article. —**Chic Lasser**

The time had come for us to replace the faucets in both the galley and the head of our 2001 Catalina 36. We did not want to replace with a like for like but wanted to have something special or something different compared to everything else on the market. The search began for the correct faucets and we were able to find what we wanted from two different vendors.

We eventually settled on the Scandvik 70104 Nordic Galley Mixer which we found on Discount Marine Supplies who were prompt in dispatching the faucet. We chose the Ambassador Marine Aidack Collection Head/Shower Combo Faucet and placed the order on Amazon. Unfortunately, Ambassador Marine sent the incorrect faucet twice and eventually we got the correct faucet direct from Amazon. We also decided to replace the sink wastes at the same time. These were purchased from Amazon as well and we found the Forespar sink wastes for a 2" cut out.

Galley Faucet replacement:

Access to the plumbing was not going to be easy for somebody of my size with large hands. Firstly, I removed the front drawer panel and side drawers to allow access to the sink waste pipes. Having read a few articles on the Catalina 36 forum, I selected to install an 8" cutout in the back rest of the dining area to allow easier access to the existing and new connections. A round inspection hatch was fitted once the hole was cut in the back rest – well worth the effort.



Removing the existing sink waste drains was simple however, luckily, I had already decided to replace these due to discoloring and chrome plating was flaking – the old ones broke when I was un-screwing them. Before fitting the new sink wastes, the focus was shifted in trying to unscrew the existing faucet as this was secured in place with a large nut that was in a less than accessible area. The only way I could pry the nut loose was by holding the nut in place then turning the top of the faucet back and forth 90 degrees at a time. Then I was



able to use a long screw driver to start tapping the nut to loosen it slowly. It helps using a flash light to see what you are doing. Patience is the only way to pry the nut loose and remove the faucet.

Fitting the new Scandvik Galley Mixer is relatively straight forward however, there are a few tricks that will make installation a lot simpler. Firstly, the faucet comes with a threaded shaft with a small size 11 nut. I changed that out to a larger and longer 1 1/2" size 13mm coupling nut. Not only is the torque better



with the larger size, but I already had a size 13mm deep socket that made installation and tightening the nut a lot easier. The faucet was then relatively simple to install however, I had to extend the hot and cold water as they were about 6" short.

With the faucet in place, it was time to connect the new sink drains. We had selected the bright chrome plated non corrosive plastic drains. Both drains need to be the 90-degree version and there is a trick in installing these. I was able to reuse the 1" hoses as they were in good condition. Loosely fit the chrome plated drain through the hole in the sink with the large white nut. Then connect the angled elbow with the 1" hoses already connected. The large black nut is then screwed tightened with the white nut to ensure the entire assembly is tight. Care should be taken to ensure that the drains line up exactly with the sink holes. I applied a thin layer of silicon to the inner rim of the drain that came into contact with the stainless-steel sink to ensure the seal was secure. Gently tighten all the securing nuts ensuring that the drains are level in both bowls.

With the drains and faucet connected, the front and side drawers can be re-installed and the 8" inspection cover was screwed into place.

We chose the Ambassador Marine Aidack Collection Head/Shower Combo Faucet and placed the order on Amazon.



Head Faucet replacement:

If you thought the galley was tight, the restricted access to the head faucet area will scare you. The existing (and original) head/shower faucet was easy to remove by unscrewing the nut surrounding the shower extension hose in the center of the unit. This is done from the top which is easy to do. The hot and cold pipes were disconnected below the sink and the old unit popped out very easily. Luckily the Ambassador unit we had



selected had a large long shank size 13 securing nut. Surprisingly the installation of the new faucet went very quickly and using the size 13 deep socket, I was able to torque the new faucet down in a matter of minutes. The new Flexible stainless-steel braided supply hose for the shower is fitted with a quick-connect adapter that simply snaps together.

The old drain was removed and replaced with a Forespar 907027 sink waste drain. The old hoses were again in good condition and simply reconnected to the new coupling – job done, and I was pleasantly surprised that the head faucet replacement was completed in 20 minutes!

Well, all the fear and horror stories of replacing the faucets was unfounded. A few scrapes and scratches on my hands but a job well done – good for a few more years of sailing. –David Robinson, 2001 Catalina 36 #1947, Wind Surfer



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CATALINA 350 INTERNATIONAL ASSOCIATION



C350 Association
Technical Editor
Scott Monroe

Special thanks to George Thor for submitting his article on PSS shaft bellows maintenance, I think you will find it an ingenious method of dealing with working in the tight quarters of our engine rooms!

Everyone else, please keep those submissions coming. Your projects and experiences are benefit to all in the C350 family. —**Scott Monroe**, Southern Yankee #409, scott_monroe@verizon.net

An Easier Way to Perform PSS Maintenance

By George A. Thor, Catalina 350, Outlander, Hull # 366

The maker of the PSS Dripless Shaft recommends maintenance that changes out the bellows and rotor 'O' Rings every six years. Outlander, my Catalina 350, is 15 years old and I knew the PSS shaft seal was never touched after it was

installed at the factory. A photo I took during the purchase survey showed the bellows having distinct cracking and crazing.

Because of the limited clearance between the transmission flange and the shaft flange, this work cannot be not easy. My first attempt was to cut the bellows out to enable pushing the shaft back, allowing me to get a flange puller in between transmission and the shaft flange. Even this did not allow enough room to thread the flange puller's center bolt that pulls the shaft flange off.

Another concern was if I did remove the shaft flange, how would get it back on the shaft? At the very least it would require some persuasion with a rubber mallet and there was no room to swing



The bellows shows distinct cracks and looks worn



Bottle jack and strap with hooks to fasten to engine mounts

one. To get working space the transmission must be removed or raised.

The Catalina350 Association has a very good technical forum and from posts there I found the solution.

Ken Krawford posted a write up by Jerry Ross that shows how to replace the engine damper plate, (Damper Replacement, Wed March 07, 2012). This article describes using 3/8 inch x 6 inch bolts and nuts to raise the rear of the engine off the engine pads allowing removal of the transmission. Working the nuts up the bolts to slowly raise the engine would take a bit of time and it would be time spent in an uncomfortable position.

The best way to raise the engine by putting a jack under the flywheel housing will not work; there is no clearance for it. Is there a way to use the jack on top of the engine? Yes, and I already had what I needed, a hydraulic bottle jack and a 1 inch wide adjustable webbing with 5/16 diameter inch hooks on the end.

The Removal:

1. Use a 2x4 cut to a length that fits across the upper engine access hatch center and hold it in place with some smaller wood and shims. (see below)
2. Remove the top nuts on the two aft engine pad bolts using a 15/16 open end wrench. Removing the two front nuts may reduce the stress on the forward engine pads as the engine is raised.
3. Remove the shift cable bracket from the transmission.
4. Place the jack on top of the 2x4 leading the straps down to the engine mounts where holes are



The bottle jack on the 2x4 that was held in place so it would not move

available to the hooks to grab. The best place to lead the straps is aft of the heat exchanger.

5. Adjust the bottle jack so the straps lift as straight up as possible and are tight on the jack.



The straps led aft of the heat ex-changer and hooked to the engine mounts

6. Tie a zip tie around the point where the strap goes over the bottle jack saddle pin keeping the strap from slipping off.
7. Jack the engine up to raise it off the engine pads. The engine needs to be raised at least 5 5/8 inches so the transmission can be taken out easily.
8. Cut to length 1x2 blocks to wedge under the port and starboard engine mounts and a short 2x4 length under the flywheel housing as additional safety stop.
9. Remove the six 17 mm bolts that hold the transmission to the flywheel bell housing. Using a socket set is impossible except on the two top bolts. A box end wrench is the only way to remove the bolts on the side of the transmission. The two bolts on the port side of the transmission will only come loose with a box end wrench. A crescent end wrench will not allow the bottom bolt to turn because the wrench will catch on the top bolt. Note also that these two bolts will not come out completely so the

transmission will need to be shim-mied out halfway before these bolts can be completely threaded out from the bell housing.

10. If the transmission is a little stubborn to come away from the bell housing, a couple of taps with a rubber mallet on either side of the transmission case and pulling and wiggling can separate it from the bell housing. If necessary, a metal narrow spackeling blade can help to pry it from the bell housing.
11. The transmission's weight is only 30 pounds so grabbing it as it comes off the engine shaft is not difficult. Note there are two pins that should remain on the bell housing that will help guide the transmission into place when reinstalling. If one or both should come out with the transmission, they should be reset into the bell housing.
12. Transmission out, remove the coupling set screws, pull the shaft flange off, and perform the PSS shaft bellows maintenance. It is important to follow the PSS shaft instructions when doing this maintenance.



The ZF 15MA transmission showing the two port side bolts that remain on it

It took a day to remove the transmission, the shaft flange and do the PSS maintenance, and another day to fit the shaft flange, replace the transmission, and compress the bellows.

The Reinstall:

I cleaned the shaft end and inside of the shaft flange with 400 grit paper and applied a little Teflon grease on the shaft end and inside the shaft flange. Light machine oil should work as well. The flange went on half way without issue; it would take a little force to get it all the way on.

Having no one to hold the prop from moving backward, I tied the prop to the boat cradle so the shaft wouldn't move backward. Using a rubber mallet, I got the flange to slip on until the last few fractions of an inch. With a 2x4 on the shaft flange face, I used a hammer with a couple of medium taps that set the shaft flange fully on the shaft. While replacing the set screws it was apparent that the set screw holes and the shaft dimples were not exactly aligned. One or two light hammer hits using the 2x4 on the shaft end of the coupling aligned the holes with the dimples.

Replacing the transmission is a little more difficult because of the two port side bolts that remain on the transmission.

1. Clean and grease the transmission spline so the next time it has to be removed it will be easier. I used a Teflon paste lube that I brushed on the splines and applied a little thin oil on the face of the bell housing and transmission to allow easy disassembly in the future.
2. Make sure the shift lever is in the neutral position and the spline turns easily. When mating the transmission, its splines will have to match up with damper plate splines and that may mean slightly rotating the transmission as you insert it into the damper plate and then rotating it back again to match the transmission to the pins in the bell housing.
3. Push the transmission into the damper plate until it is about 1/4 inch from the bell housing making sure the port bolts are not tight up against the transmission.

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CATALINA 350 INTERNATIONAL ASSOCIATION

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4. Replace the bolts on the top and starboard side of the transmission. Only thread them in part way until the port side bolts have been started and threaded in part way as well. Once the port bolts' threads have been started, going around the transmission, thread in all the bolts. It does not seem possible to use a torque wrench so tighten as evenly as possible.
5. Remove the 2x4 and the 1x2 holding blocks and gently lower the engine by opening the bottle jack pressure valve. The engine should directly go back onto the engine pad bolts. My port pad went on fine, but the starboard pad's bolt missed the engine mount hole a bit and I had to push the engine pad bolt to that side so the two parts could mate.
6. When both engine pads are into the engine mount holes, completely lower the bottle jack cylinder.
7. Replace the engine mount nuts, bolt the shaft flange to the transmission and reinstall the transmission shift bracket. The alignment of this bracket is not the best, so try to thread both bolts loosely before tightening.

It took a day to remove the transmission, the shaft flange and do the PSS maintenance, and another day to fit the shaft flange, replace the transmission, and compress the bellows.

If you don't have a bottle jack, you can buy 2 or 4 ton bottle jack for around \$14 to \$18 at Home Depot or Harbor Freight. If you use a 2 ton jack, the piston travel may not be enough so you will have to stack two 2x4s across the access hatch. If doing this, nail them together so they are one unit. The adjustable tie down straps and hooks can also be got at these stores as well for under \$15. This work is not complex, if you can handle a wrench you can do it.

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CATALINA 30/309 INTERNATIONAL ASSOCIATION

C30 Drop-In New Engine Replacement



C30/309
Association
Technical Editor
Michael Dupin

Special thanks to Rick Caselli for submitting this article.
—**Michael Dupin**, dupin.catalina30@yahoo.com

In 1981 I purchased the Bon Vivant, a Standard Rig Fin Keel with a 5411 Universal diesel engine (2 cylinders, 11HP), wanting more room than my Catalina 27. Little did I know that this purchase would become an incredible bonding experience and a family heirloom that can never be replaced. I raised a family on this sailboat nearly every weekend and my son Chris and I have won races, braved storms and have an incredible amount of memories and stories of life aboard the Bon Vivant. Our twin daughters have done extensive cruising with the family, and some racing.

February of 2019, we had transmission issues and had been keeping the old engine alive by working on it often. Time for a new start! I got a price from our shipyard of \$12,000 just for the labor and they were going to cut up the engine compartment. I had seen Beta Marine at a boat show, and I decided we should upgrade and do it ourselves. We contacted Beta Marine West in Sausalito, California by phone, they asked us to get



the exact spacing of the engine mounts. We provided the critical dimensions. They quoted us a Boat Show Special price of \$10,000 (and after placing an order they gave us a delivery date that we could easily live with). They were available to answer the few questions that we had. They know everything about the engine and the re-engine process, as that is their market. I ordered a Beta 20. It is 3 cylinders and 20HP. Our only modification involved cutting the new stainless-steel exhaust pipe, rotating it, and had it welded back together. Two weeks after it arrived, Chris and I took a weekend to install the engine and head out to Catalina Island. Beta Marine did a great job custom building the engine mounts, and this was a complete drop-in.

We had taken the old engine out before for repairs and this was EASY! Put a halyard on the boom, use it as an engine hoist, swing it out and swing the new one in. We cut the new exhaust pipe, rotated part of it to align with the original muffler and had it welded. You can see where we cut it in the pictures. Beta is a bit more expensive than the other brands, but it is a much better

engine, and new technology. They obviously studied the original engine's shortcomings and designed a better package. Just a few of the improvements are the heat exchanger is built in, the fly wheel is heavier, therefore, the engine runs smoother. Perfect fit for our best friend Bon Vivant.

The old engine had taken us around Southern California, including motoring home from 37 Newport to Ensenada, Mexico Races, and still ran, but the new Beta 20 had all new components, a new wiring harness and more horsepower. That additional horsepower cuts over an hour off our many trips to Catalina Island. We typically motor over early Friday morning and sail home Sunday. Approximately 42 miles from Dana Point to the Isthmus on Catalina.

—**Rick Caselli**, Commodore Catalina 30 International Association, BonVivant, 1980 Standard Rig, Fin Keel, Hull Number 1983, Dana Point, CA

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CATALINA 28 INTERNATIONAL ASSOCIATION

Some Thoughts on the Hurth ZBW50 Transmission

C28 Association
Technical Editor
Ken Cox

Almost daily I am surprised by the craftsmanship and creativity of the Catalina 28 group on groups.io and you can tap into this for no additional charge. Below is a sample of what should be a simple task, submitted by Bob Storrar. —**Ken Cox**, kenneth_cox@sbcglobal.net

Let's have a show of hands, how many of you find it difficult to get an accurate fluid reading on the Hurth transmission dipstick? When I unscrewed the dipstick, cleaned it off with a rag, placed the dipstick back into the hole up to the threads and then pulled it out again, I found it difficult to precisely determine where the level is! The dipstick has a shiny dark appearance so with fresh fluid I was never sure of the exact level.

I felt more secure in evaluating the fluid level now that I have spent \$1.50 on an 18" piece of 1/4" OD clear tubing and a 1/4" ID rubber plumbing washer. As a kid how many of you put your thumb on the end of a soda straw and pulled a straw full of pop out of a glass? With that principle in mind, I glued the rubber washer at 5 1/8" from the end of the clear tubing representing the length of the dipstick. I then scribed a line at 13/32", (.4") from the end of that represented the full mark.

Now, after pulling out the dipstick, I reinsert the tubing using the rubber washer as a stop. After placing my thumb over the top end of the tube I pull it out to read the level. A perfect reading, every time.

As an added bonus is that you are able to view a small sample of the transmission fluid both for color and clarity. You may also want to use the other,

longer end to sample the fluid deeper in the transmission.

I used to be reluctant to check the transmission fluid because I had to search for a wrench, remove the aft cushion and lay my aging arthritic body on the hard fiberglass in the aft berth, then fumble with a wrench from the back of the transmission without clearly seeing the hex on the dipstick. I now have a dedicated ratcheting driver that is adapted to an 11/32 socket within reach of the engine compartment. I can unscrew the dipstick from the top of the engine, then, use my clear tube to check the fluid level. The whole process takes less than 90 seconds, so every time I check the engine oil, I also check the transmission fluid.

While we are talking transmissions, I always wondered about the logic behind putting the gear selector in reverse while sailing, NOW I know why!

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I rebuilt my Hurth HBW-50 transmission (M3-20) because it began slipping badly at 2,400 RPM. At the completion of the rebuilding while on the bench, I was surprised to find that when shifted into Forward, I could hold the input shaft with one hand and then rotate the output shaft in one direction but not the other. I called the technician at Basic Power for an explanation. He explained that with the shift lever engaged in the Forward position, and the input shaft is rotated CW (as the engine would) you should have solid engagement at the output as if it is turning the prop, but may slip when rotated in the opposite direction.

As explained in the Hurth ZF service manual:

“The thrust force required for obtaining positive frictional engagement between the clutch discs is provided by a servo-automatic system. This essentially comprises a number of balls which, by the rotary movement of the external disc carrier, war urged against inclined surfaces provided in pockets between the guide sleeve and the external disc carrier and in this way exert axial pressure.”

So when the gear selector is in the Forward position while sailing, being towed, or anchored in a river, the pressure on the prop may cause the clutch plates to slip because the passing water force to the prop will put pressure on the clutches in the opposite rotation of motoring forward. There is the potential for slippage that can lead to premature wear. Additionally, the slipping clutch plates will produce fine particles that will circulate in the transmission fluid causing excessive wear on the bearings.

When the service manual directs you to put the transmission in Reverse while sailing you should believe, there is a good reason.

All related photo's are on the groups io website as well. —**Bob Storrar**, Moon Dance #177

Masthead Sheaves

I replaced my masthead sheaves in 2008 with ball bearing sheaves, and had high expectations for them. Two years ago I asked whether anyone had problems with ball bearing sheaves that were always in the same position (ie. Jib halyard for roller furling), as I was having to use the winch more than I remembered doing in the past.

Last weekend I pulled my mast to do some wiring and inspected the sheaves while the mast was down. I was very disappointed:

1. The sheave for the jib halyard was shot. It bound up when I turned it. The anodized coating on both sides of the outer sheave was worn off and it was covered in black dust.
2. The sheave for the topping lift was also in bad shape. It felt “bumpy” when I turned it. It had lost the anodizing on one side of the outer sheave and was also covered in black dust.
3. The main halyard sheave was slightly better than the topping lift sheave
4. The sheave for the 2nd jib halyard that I never use was in perfect shape.

When I got the sheaves home, I inspected them carefully and took some measurements with my micrometer.

The center pressed-in bushing for Sheave #1 was 0.004" narrower than #2 and #3 (I left #4 in the masthead). I believe the center of the sheave was spinning on the center pin instead of the outer ring spinning, and the bushing side had been worn down. I also noticed that the “extra” space between the ball bearings differed greatly. I held the sheaves so that they looked like a clock face, jiggled the sheave to let the bearings fall to the 6 o'clock position by gravity, then measured the space between the left and right ball bearings at the 12 o'clock position. #1 had 7 mm spacing, #2 had 4mm, and #3 had 1mm. The circumference of the ball bearing race is 113mm, and I believe that sheave #1 had lost at least 6mm out of 113mm

in ball bearing diameter due to wear (about 5%). The other alternative is that 1 or more ball bearings disintegrated completely.

Catalina Direct sells two types of masthead sheaves:

- Ball bearing @ \$39.95 each and fits both flat and round C28 masts
- UV Stabilized Black Delrin @ \$15.24 each. These sheaves will only work on the mast that has flat sides and uses flat sail slides in a sail track that lies on the outside of the extrusion.

I replaced the jib halyard sheave with the UV Black Delrin. I only ordered one ahead of time because that was the halyard that was hardest to raise and I thought the high static load might be an issue. I did not expect the other two sheaves to be a problem. Luckily my friend had 2 new ball bearing sheaves that he let me use for the topping lift and main halyard. So next time I drop the mast I can compare the wear of the black Delrin vs. the ball bearing.

In the meantime, I cannot recommend the ball bearing sheaves. They cost more than twice as much as the Delrin, and I recall my jib starting to have problems in 2013 (when the ball bearing sheave was only 5 years old). The original non-stabilized white Delrin sheaves lasted 11 years. I expect the stabilized black ones to outlast the originals.

ED note, since this time the consensus has been to use the non-ball bearing ones for head sail, topping lift etc., a load that is in constant load and movement and the ball bearing ones for an intermediate higher load, i.e. mainsheet. The ball bearing ones do seem to wear out more often, however, are a bit easier to hoist the main. —

Mike Smalter

Association News

News That's Specific To Your Catalina

Catalina Fleet Rosters

We are printing one point of contact for each fleet (a phone number, email address, OR website address). Fleets are a great way to learn about rendezvous, cruise ins, raft ups, tours, and concerts in your area. *Mainsheet Editors, make sure to submit your current info in this format next issue!*

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http://fleet30.org/index.htm

#31 Clinton River, MI

drpost6290@yahoo.com

#32 Lake Lanier, GA

rrose@deltaenv.com

#35 Southwest Florida

(see Fleet #7)

#36 Lake Perry, KS

913.677.3143

#37 Vancouver Island, BC

gm@bonnor.com

#38 West Michigan, MI

http://www.lmca.com/

#40 Lake Pleasant, AZ

602.867.0650

#42 Cheney Reservoir, KS

thegreenwoods@sbcglobal.net

#44 Santa Cruz, CA

clubmanager@scyc.org

#45 Columbia, SC

szymanskim@msn.com

#46 Grapevine Lake, TX

atanua.sail@gmail.com

South Shore Yacht Club, Milwaukee, WI

http://2011ic30anationalregatta.com

Other regional C30 Fleets

CRACA Columbia River, OR

celtic-myst@attbi.com

KLACA Kerr Lake

doncourtney1@aol.com

OSCA Rhode Island

www.oscafleet.org

SBCYA Long Island, NY

www.sbcyc.org

CSMB Santa Monica Bay

millerjonathon@mac.com

Lake Hefner, OK

bluwater30@cox.net

Fleet #69, Austen TX

http://www.catfleet69.com

GC3, Alabama

GulfCoastCatalinaCruisers.com

Let us know where you sail!

To have your fleet listed here, send the information to your Association Editor for inclusion in the next issue.

CATALINA 36/375 INTERNATIONAL ASSOCIATION

Commodore Report



C36/375
Commodore
Les Troyer

With the cancellation of rendezvous all around the country due to the Covid-19 virus, the C36/375 Association thought to try something new. We have instituted monthly one hour Zoom meetings.

Attendance at first one was a bit light, our second will be in just a few days from writing this and quite a few people have expressed interest.

We have a new WebMaster, Eric Howell – thanks for stepping up! Also thanks to Nick Tonkin who stuck with us long after he traded sailing for the mountains. I appreciate all you’ve done for us. **–Les Troyer**, leslie@e-troyer.com

We have instituted monthly one hour Zoom meetings. Attendance at first one was a bit light, but quite a few people have expressed interest.

CATALINA 350 INTERNATIONAL ASSOCIATION

A Sailing Threesome | A story of Gene, Neville and Me Sailing Together



Irish Lady wouldn't roll out her main sail but sailing well with her Genny



Tranquility on an easy beam reach



TIKI close hauled approaching Irish Lady

It is quite unbelievable that three of your Bridge officers live within minutes of each other, and also dock their 350s within feet of each other, but it is true! What is even more unbelievable is that we, your Commodore (Neville), Vice-Commodore (Pam), and Treasurer (Gene), after multiple tries to coordinate a sail together, actually made it happen!

On April 28, a somewhat blustery, but beautiful afternoon on Choc-tawhatchee Bay, Irish Lady, TIKI, and Tranquility sailed together for the first time, but certainly not the last. Not since the Nina, Pinta, and Santa Maria have three more stately and prominent yachts graced a waterway.

Because a photo or two of the three of us was needed for proof, there was much maneuvering to get lined up for the perfect shot. This proved a little more difficult than I, the camerawoman, thought. Neville's mainsail was temporarily stuck in his mast (he unstuck it after the sail), and Gene's mast is about five feet taller than Pam's and Neville's (both of which are cut to be able to get under local and other ICW bridges), so Tranquility was faster than Irish Lady and TIKI.

We were all trying to compensate by slowing down or speeding up in order to get in the same shot!

We got great practice in tacking and jibing, and it sort of felt like the beginning of a cruiser regatta, each of us jockeying to hit the start line at the horn.

We ended up with the pictures you see, but pictures don't do justice to the

fun we had that beautiful afternoon. I foresee more group sails, and hopefully some overnight raft ups/happy hours. Anyone want to sail on down to the Emerald Coast and join us? We promise one of the best sailing venues you will ever love! **–Pam Brown**, C350 Tiki, Hull #154



Finally, the fleet is all together

CATALINA 34/355 INTERNATIONAL ASSOCIATION

Secretary's Report



C34/355
Association
Secretary
Stu Jackson

C34IA Membership rose to 492 from last quarter's 426 edging beyond the 491 from December, and includes 29 C355s.

We bought our then-12 year old boat in July 1998, and sailed on San Francisco Bay, the Pacific Ocean and

The California Delta for a wonderful eighteen years. On June 30, 2016, we drove to Beautiful British Columbia, to support my then-95 year old father-in-law. The time between when we decided to move and our departure was only a month and a half, so we left Aquavite in Alameda, with vague plans to visit "regularly." After a couple of weeks in B.C., I figured that this concept would not work. I developed a new plan to go back to California and sail Aquavite to our new home. Our once-in-a-lifetime trip, with my son Morgan, lasted from August 8 to September 16, 2016.

When we left Alameda that August four years ago we had fortuitously had a bottom job performed on March 10th, two months before we even made the decision to move to Canada. Keeping the boat moving almost daily for six weeks kept the bottom clean and the boat speed high. I used the boat a lot during our first three summer seasons here from 2017 to 2019. But she languished in her slip during the down days of our six month "off" seasons. By the end of "Season 3", it became apparent that another bottom job was necessary.

Our Maple Bay Marina has a small chandlery and a small 15 boat capacity yard with a travel lift. Just about the time I was going to schedule a haulout,

on May 20th I got an email notice from our marina that the chandlery and boat yard were going to close! "We will be closing the Boatyard in the next few weeks to do upgrades this summer. Lindstrom will be leaving, and the Marine Supply store will be closing as well. The Boatyard @ Maple Bay will be reopening in the late summer/early fall." Given our increasingly sluggish performance under power that was not good news for cruising this summer.

The next day I went into the chandlery to schedule a lift. They told me that they were completely booked until the day they planned to close, but that they'd put me on a waiting list. The next closest haulout facility is over two hours away by boat.

We were on tenterhooks for a few days. A few days later the chandlery called and Jim asked if I could be available for an 0800 haul on June 3rd or 4th. So on the afternoon of June 2nd, I asked my friend Len to join me, and we motored all the way over to the next fairway and docked in front of the travel lift. I got up early on the 3rd and was back at the marina at 0745.

The haul went smoothly, and I was pleasantly surprised at the very good condition of the bottom. I was definitely not amused by the condition of the running gear. The shaft and prop were heavily encrusted with barnacles. In the prior seven haulouts we'd done in The Bay Area, I had never seen anything like this, most likely because of the monthly diver we'd employed. Regular diving services are not usual here in the colder water. There was now no doubt as to where the loss in speed had come from. It took a yard worker over half an hour to chip the crusty growth off.

After the power wash, the lift trundled over to the jack stand area, where

we were plunked down next to another Catalina 34! Small world. I inspected and photographed closely, remaining pleased.

We have always used a hard paint, but our former paint - Pettit Trinidad Pro - was not available in Canada for environmental reasons. I was offered Pettit Horizon, an ablative, or Nautical Epoxycop, a hard. I chose the hard paint. Just coincidentally, that same day I came across a post on sbo.com about this paint, with a link to their website, which recommended two coats, rather than the one the yard suggested was "adequate." I had also learned from a diver in San Francisco, Matt aka his internet name "fsbtms", that regardless of the type of paint they all eventually lose the usefulness of their chemical strength over time based on the amount of paint applied, i.e., more is better and will last longer. I chose to go with the manufacturer's recommendations and Matt's, so the extra coat required a layday in the yard. I also took the painter's recommendation to apply zinc material to the shaft, strut and prop, a first time for us, along with two shaft zincs. The strut zinc I'd had replaced in the water back in early November was still fine.

The next day I arrived around 1400. I inspected the work which looked very well done. Between the time I went to the office and paid and got back to the yard, Aquavite was back in the water. Bjorn helped me off the side tie dock because the wind was blowing us on, and I motored the short distance over to our slip.

Our first Canadian haulout was a pleasure. The lift and splash took place in only two days. My seven experiences in California were quite different. For some reason many of the yards there took over a week if not more for the same amount of work. I enjoyed the experience of our first Canadian Haulout, Haulout #8 for Aquavite.

Trust you are well and into the new 2020 season. And, as always, many thanks from all of us to all of you for supporting the C34IA. **-Stu Jackson, #224 Aquavite**

We have always used a hard paint, but our former paint - Pettit Trinidad Pro - was not available in Canada for environmental reasons. I was offered Pettit Horizon, an ablative, or Nautical Epoxycop, a hard. I chose the hard paint.

CATALINA 320 INTERNATIONAL ASSOCIATION

Annual Meeting



C320
Commodore
David Allred

Wow! What a difference three months make. The last time I was writing an article for *Mainsheet*, all the news headlines were about elections. The focus was so pervasive that I decided to include what I thought might be a clever and humorous (some might say “too cute”) reference to the zeitgeist of the moment in my discussion of the Catalina 320 officer elections. By the time *Mainsheet* was published and mailed, news regarding the coronavirus pandemic had overwhelmed almost everything else. Primary and other elections, as well as humor, itself, seemed to be relics of a distant past as the month of March stretched on for what seemed to be years. If our international members in Australia, Canada, Great Britain, and elsewhere did not recognize my light hearted, but perhaps parochial, reference to United States elections, they certainly are caught up in this world wide pandemic. As I sit here referencing the coronavirus, I can only hope that three months hence, if another event so completely supplants the current misfortune as this one supplanted elections, it will be of a far more favorable nature.

Posts on the website show that the disease has disrupted many of our sailing traditions and plans. Some members report that their marinas have been closed for extensive periods denying some folks access to their boats during prime time for maintenance and preparation. My marina remained open, but the Maryland portion of the Chesapeake Bay, itself, was closed for recreational boating for several weeks. Now, at the end of May, restrictions are loosening, although there are still social distancing and masking rules at my marina. Beyond the marina, Maryland continues restrictions on many businesses and activities and encourages folks, especially the more vulnerable, such as old people like me, to stay home.

I have found at least one silver lining to the long home stay and search for diversion. Several weeks ago, my wife and I were talking and the term “gaslighting” came up. Mary Lou said, “I have heard that term and I think I know sort of what it means, but what, exactly, does it mean?” It just so happened that Turner Classic Movies was showing the 1944 film *Gaslight* that evening. I told her the best explanation would be to watch the movie. At the end, she said, “I don’t think I have ever understood a term any better than I do that one.” The upshot of watching *Gaslight* was that we began to watch a lot of old

movies on TCM. Some of them we had heard of, but neither of us had ever seen. Among those were a few that we would watch together and at the end, turn to each other and say, “Well, we will never have to watch that again.” (I’m looking at you *The Third Man*... except for the zither music). We were a bit surprised to find that we really enjoyed all of the Ginger Rogers-Fred Astaire movies. The dancing is fantastic and the Art Deco sets, even in black and white, are beautiful. I had no idea that Edward Everett Horton and Eric Blore provided so much humor in many of their movies. I also found that reading the Wikipedia entry for each of these old movies provided a wealth of interesting background material. Who would have known that Astaire described the ostrich feathers falling off Roger’s dress in *Top Hat* as “like a chicken attacked by a coyote”? We have found another source of entertainment that we had neglected before.

So, by the time you are reading this, I hope things have changed for the better. I hope we are in the middle of a sailing season that may be different, but still rewarding and fun. Finally, I hope that you and yours along with everyone else is well and thriving. May we all be safe and healthy. **—David Allred**

CATALINA 30/309 INTERNATIONAL ASSOCIATION

Hello all!



C30/309
Association
Editor
Michael Dupin

At the time of writing (June), COVID is still an issue and marinas just started to open in most places. The Nationals in Milwaukee were cancelled, and a lot of trips and races got the same fate. For those of us in the North, it’s time to start thinking about decommissioning the boats. For those of you in the South, I hope you get many more great sails in 2020!

In this issue, we have a good read by Rick Caselli in the Tech Section on him having saved a lot of \$\$\$ and time when he replaced his engine himself. He says it was easy...

Don’t forget to send me pictures, stories, and any good stuff you encounter. Stay safe and fair winds!

—Michael Dupin, dupin.catalina30@yahoo.com

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CATALINA 22 NATIONAL ASSOCIATION

The World Has Changed

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- **SOCIAL DISTANCE!**
- **STAY HOME!**
- **YOU CAN'T GO BOATING!**
- **RACING IS CANCELED!**
- **RAMP CLOSED!**
- **SAIL WITH THOSE YOU QUARENTINE WITH!**
- **YOU CAN BOAT WITH TWO PEOPLE ONLY!**



During the past six months, the world has changed, including our world of sailing. There are more questions than answers about COVID-19. Unfortunately, we still do not know who to believe for the facts about how to handle the Coronavirus pandemic. For many of us involved with sailing club management or sailing event management, decision making about hosting organized sailing events has become difficult because there is a need to balance safety without over-reacting.



C22 Association
Editor Rich Fox

During the past six months, the world has changed, including our world of sailing. There are more questions than answers about COVID-19. Unfortunately, we still do not know who to believe for the facts about how to handle the Coronavirus pandemic. For many of us involved with sailing club management or sailing event management, decision making about hosting organized sailing events has become difficult because there is a need to balance safety without over-reacting.

The Catalina 22 National Sailing Association website at www.catalina22.org now has a new Coronavirus Resource page to provide Catalina 22 sailors, fleets, and event organizers with information to consider when managing organized events in the current Coronavirus environment. The resources available on this page are intended to help inform, educate, and to encourage safe practices at future organized Catalina 22 sailing events. At present, most of the resources on this page are linked to the US Sailing Coronavirus Resource page. I applaud US Sailing for taking immediate leadership in setting up their Coronavirus Resource page.

For the first time in nearly 50 years, the Catalina 22 National Sailing Association had to cancel the National Championship Regatta. We are working with the Pensacola Yacht Club to host the event in 2021. We want to thank Brent Purcell and the Fort Walton Yacht Club for working with us to host the event in June 2020.

In 2021, the Catalina 22 National Sailing Association will be celebrating its 50-year anniversary. My how time

has passed us so quickly. If you go to the video section of the Association's website at www.catalina22.org, you will find a series of slide shows from each of the five decades – the 1970s, the 1980s, the 1990s, the 2000s, and the 2010s. Each slide show is approximately three minutes in length. You may also want to check out the publication "Catalina 22 – An All-Around Champion" also available on the Association website.

–Rich Fox, rich_fox@yahoo.com

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