



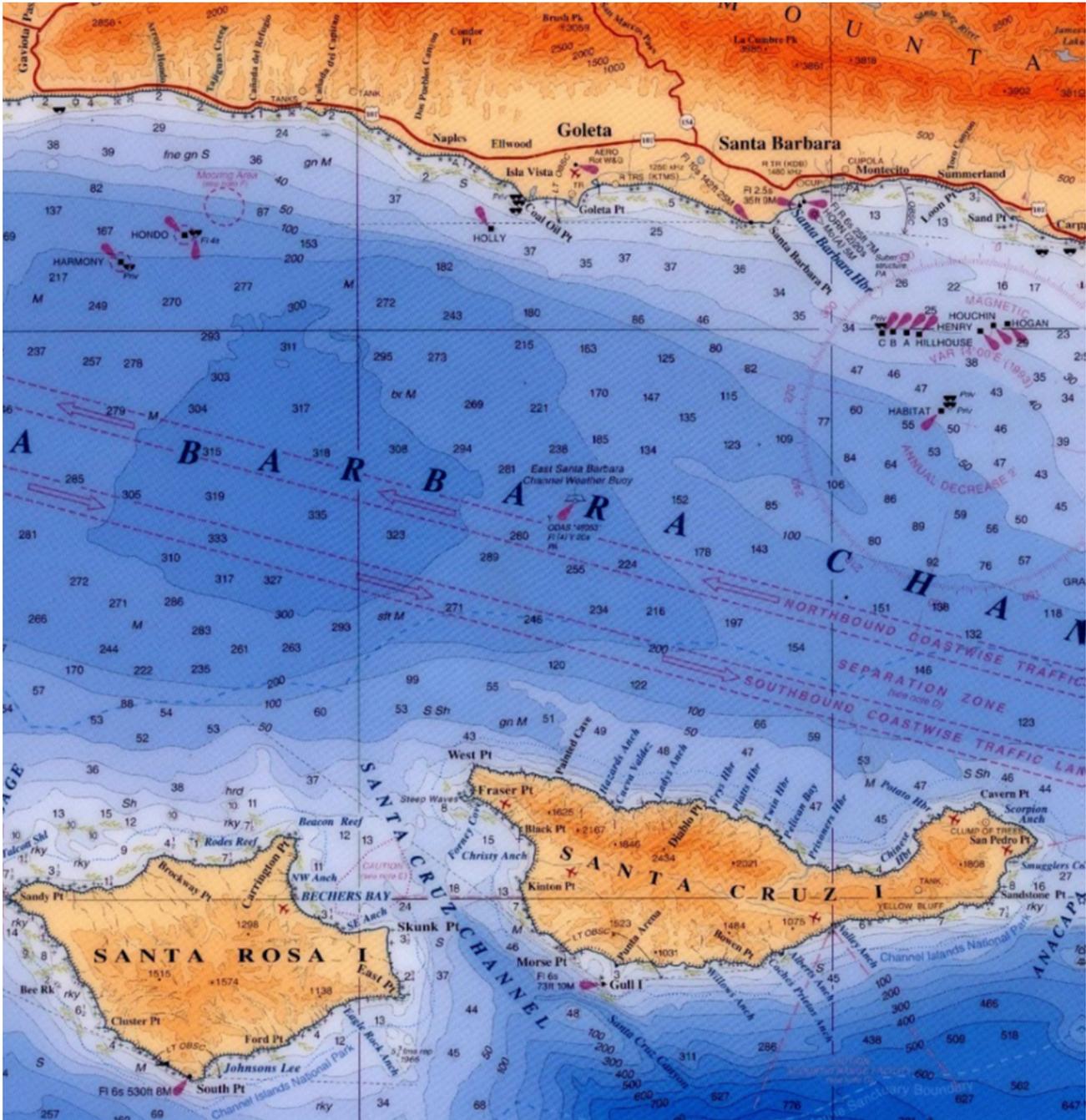
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Signal Hoist



Santa Barbara Sail & Power Squadron

Monthly Newsletter May 2021





COMMANDER'S MESSAGE

Cdr. Virginia Johns, P

April's meeting was scheduled as one of our "Fun and Entertainment" events and I was indeed entertained. Thanks to Dennis, our Administrative Officer, for his creative thinking and to the participants of the "Why I Love My Boat" virtual presentation. I'm hoping for a second installment!

At our May meeting on **Thu May 6 at 7:30pm** we will have a speaker to entertain you. I am working with Garmin's marine training department to address us on radar. I will send out an email notice as I get more details. The zoom link to attend is:

[https://us02web.zoom.us/j/82472841227?
pwd=cFZyQm1OeDJKcjNmeFpkNnhLSkFDUT09](https://us02web.zoom.us/j/82472841227?pwd=cFZyQm1OeDJKcjNmeFpkNnhLSkFDUT09)

What's new?

1. For the first time in a long time, ***we have three activities this month which will NOT be virtual on zoom!!!*** Two have a slight date change from our planning calendar, so be sure to read the Message from the Administrative Officer below which provides details on these May events.
2. If you have looked at our squadron website recently, you may have noticed



a new ***shopping bag*** icon near the upper right hand corner. Eric Peterson, our web developer extraordinaire, has added e-commerce ability to our site. Our initial use will be for events.

John Profant (SEO) and Steve York (Treasurer and Webmaster) worked with Eric to design and test our inaugural event, the upcoming ABC class. We plan to use this new website feature for other types of squadron events, such as RSVPs for social events. Online shopping in our Ship's Stores is a future possibility. My thanks to this great team!



***I am looking forward to seeing some of you at the
May activities!***



ADMIN OFFICER'S MESSAGE

Lt/C Dennis Johns, AP

Looks like those treasures sitting in your garage (or on your boat) will have to sit there for another year. There were only three of us, John Profant, Don Crowder, and me who took advantage of the SB Yacht Club Swap Meet last month. John sold a bar-b-que, Don sold some brass chocks, and I sold an aluminum propane tank and miscellaneous pieces of teak. You never know what someone will want if the price is right.

The April 17 Virtual Boat Tours was entertaining and educational. We had three sailboats and one motorboat featured. I was surprised that there appeared to be only a few of us that love their boat. Maybe we'll do it again later this year if there are more of you who would like to show off their pride & joy whether you still own it or not. If you want to participate in a future

similar event, let me know and I'll schedule and promote another event in the coming months.

There is good news for May! We were anticipating that events we had scheduled would be subject to cancellation. Not so for May. The Harbor Dept. has advised that they are conducting Operation Clean Sweep on Sunday, May 16. They assure us that masks and social distancing will be addressed if it is still required at that time. This event has always been a great social event in addition to being a wonderful opportunity for community service. It's also fascinating to see what secrets the bottom of the harbor holds; batteries, bicycles, crab traps, toilets, navigation equipment, tarps, the list goes on and on. Divers will have surveyed the harbor floor a few days ahead of Sunday and located items to be removed. They do the survey before removal because visibility is lost once items begin to be hauled up. The event will begin with a briefing on the Travel Lift Pier at 8:00 a.m., with donuts and coffee, and concludes with a hearty box lunch around 11:30 a.m. The SBSPS has always been well represented at this event and I hope we can continue to earn this reputation. Let me know if you will participate, I will need to advise the Harbor Dept. how many volunteers to expect.

May 22-28 has been designated as Safe Boating Week. In preparation for that event, the Harbor Patrol has advised that they will conduct a flare shoot at 6pm on Tuesday, May 18 -weather permitting (if the wind kicks up in the wrong direction it will have to be cancelled). A preliminary meeting in the waterfront classroom will not be a part of the event due to the issue of social distancing within a closed area. The group will meet on the sand just west of the yacht club to discuss flare use before the shoot begins. So gather up your expired flares and meet us on the beach to fire them off. Expired flares are not to be disposed in the collection of trash headed for the landfill and this is an excellent way to get these dangerous items off your boat or out of your garage. If you have never fired off a flare you should definitely attend to get the experience before you need it (hopefully never). Even if you don't have any of your own expired flares, there has always been plenty to go around, so attend with or without flares to contribute. Again, let me know if you plan to attend so I can advise the Harbor Patrol how many folks to expect.

Finally, our 2021 cruising schedule begins with a May 21-23 cruise to Frys Harbor on Santa Cruz Island. Don't know if s.v. *Libertad* will be ready for cruising by that date (she's still in the Ventura boatyard) but we will make every effort to put her back together in time. In any event, Scott Burns' s.v. *Benchmark* will be headed out Friday morning with others to follow.

Upcoming Activities

Sun, May 16 8:00AM - 11:30AM	Harbor Clean Sweep	Travel Lift Pier
Tues, May 18 6:00PM	Flare Shoot	On sand west of Yacht Club
Fri, May 21 - early Sun, May 23	Cruise to Frys Harbor (point person - Scott Burns)	Harbor



Sat. April 17, "Why We Love Our Boat" Activity



SEO's MESSAGE

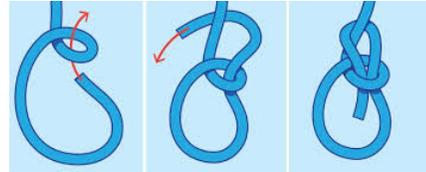
Lt/C John Profant, SN

It has been a busy month, but we managed to set up an online registration process. We also started our America's Boating Course. Thanks to commander Virginia for hosting the ZOOM class. Eight students signed up and registered online. Since National provided 20 free copies of the student ABC kit, I was able to mail each student a kit and still keep the cost down for this course.

Dennis Johns taught the first class via ZOOM. I thought it went very well and got some good positive feedback. There are four chapters to this course, and we will be teaching one chapter a week. Next week will cover rules and regulations and be taught by Rich Ciolino. On the 11th of May, Tom Koch will teach the sections on Finding your way, Anchoring, Emergencies and Communications. The last class will be on May 18th, and Pete Seago will cover Safety, Trailering, PWC, Knots and lines. The exam needs to be done in person so we are trying to settle on a venue in which we can administer the exam. Tentatively we have selected May 25th for the exam.

I am also ready to do Vessel Safety Checks. I have one scheduled for this weekend. If you want to do that, contact me so we can schedule an appointment.

Contact information is johnprofant@cox.net or (805) 455-9173



Knowing which knot to use and how to correctly tie it are key to boating safety. The America's Boating Channel has very easy to understand videos on the following knots. Click on the name of the knot to view:

- [Cleat hitch](#)
- [Clove hitch](#)
- [Square knot](#)
- [Bowline](#)
- [Sheet bend](#)
- [Round turn with two half hitches](#)
- [Figure eight knot](#)

If any of you have some hints to add for these or other useful boating knots, send them to me and I can include your thoughts and advice in the next Signal Hoist. Share your knowledge!

Lightning in Costa Rica

Lt/C Dennis Johns, AP

I'm occasionally asked what was the scariest moment during our world cruise? To the surprise of many, it wasn't a gale with 50+ knot wind and 20 foot seas. Frankly, we made it a point to watch the weather very carefully, especially in places such as Mexico's Gulf of Tehuantepec and France's Gulf of Leon where gale force winds can develop in a matter of hours. Storms of the type described are primarily experienced in the upper or lower 40's (above 40°N or below 40°S latitude). Our passages were mostly inside or not very far out of the tropical zone and that zone has very predictable nasty weather such as hurricanes and cyclones which most cruisers make concerted plans to avoid.

To set the stage, after visiting the many popular winter haunts on the west coast of Mexico, we continued south from Acapulco which is the turn-around point for many cruisers who head back north for protection from hurricane season. You might imagine what was going through our minds as all vessels we saw were heading north and in addition, we didn't meet up with anyone in an anchorage heading south. What did they know that we didn't?

Hualtuco was our jumping off point for crossing the Gulf of Tehuantepec and the beginning of a four day overnighiter to the marina at Bahia del Sol in El Salvador. We had decided not to stop in Guatemala as our guide book related high degrees of poverty, crime, drug cartels, and administration instability. This was our longest passage to date and we were anxious and excited. The passage was generally good sailing with only occasional times of motoring. The entrance to Bahia del Sol requires passage at high tide and a pilot to guide you. Often the passage can be exciting with waves breaking over the shoal as you pass through the entrance. We radioed our anticipated arrival time asking for the pilot and was told that the pilot was



going off duty in an hour and would not be around the next day. So we revved up the engine and ran at about 3000 rpms for the next forty-five minutes. We hated to tax our 27 year-old engine like that but we didn't want to anchor out for two days in ocean swell waiting for passage over the shoal entrance. We announced our arrival at the entrance and the pilot came out to guide us. Our experience through the entrance was uneventful as it was a calm day and slack tide.

Having arrived in Bahia del Sol we finally met cruisers who were doing what



we were doing i.e. working our way south for a Pacific crossing next year. That was very comforting and it was very enjoyable being surrounded by folks who had similar interests. One of the cruisers that was there was one we had met previously, Pam on s.v. *Precious Metal*. She was there for an extended stay, making repairs to her boat from a lightning strike. It is rare to be struck, in

fact, insurance companies note statistics that less than one boat in a thousand will ever be struck by lightning. Contradicting that, we had already met three other cruisers in addition to Pam who had been struck and we'd only met about 50 other cruisers at that point. Apparently most of those thousand boats were never around Central America. The lightning strike Pam suffered, hit the water many yards away and traveled through the water and into her engine room via her engine exhaust port, causing a fire in her engine room. Her engine was fine, but it fried all her electronics. We spent a couple of weeks in El Salvador enjoying the company of many South Pacific bound cruisers.

More than half a million lightning strikes are estimated annually in Costa Rica. ... According to ICE data, the west of the Central Valley (Alajuela, Santa Bárbara, Mora, Puriscal) is the area with the highest lightning density, according to the information collected between 2005 and 2020. Skies were clear and sunshine was predicted for our 350 mile passage to Costa Rica so we and our buddy boat, s.v. *Jeorgia* headed for Costa Rica. We were to learn repeatedly that weather predictions were rarely reliable beyond two days and this passage would take three.



Beginning of the third day, storm clouds began to form. We could see on our radar that we were heading straight into them and they stretched beyond the horizon. We radioed *s.v. Jeorgia* and consulted on the best plan of action. As there was no anchorage for shelter nearby, we

agreed to forge ahead. Sails were furled or flaked and hatches were buttoned up. The conditions were surreal as there was very little wind and seas were flat. Motoring was going to be required. It wasn't long before we began to see the lightning bolts lighting up the sky and stretching from the clouds to the surface of the water. Radar did provide images of where the clouds were most concentrated and even provided what appeared to be corridors between the heaviest cloud concentrations. Within a couple of minutes of preparing the boat, we were being pelted by rain and were watching bolts of lightning strike all around us. Knowing what we'd heard from other cruisers, we could not imagine emerging from this storm without a strike. Virginia gathered up our critical handheld electronics (VHS, GPS, etc.) and stashed them in the oven (our stand-in Faraday cage). Comparing notes with *s.v. Jeorgia* on the storm, we would identify the lightest concentration of clouds/rain on the radar and head for those gaps. The day turned out to be a slalom between storm clouds and took many extra miles to clear through the storm. As is usual with stressful moments, it seemed a long time before the front of the storm passed and we just had residual rain. Nothing we would encounter for the rest of our six-and-a-half year voyage was as frightening as that forty-five minutes surrounded by countless bolts of lightning. In hindsight, it was probably for the best that it happened during our first year out as it gave us confidence that we could control our fear and focus on the tasks at hand.

Birds on Board - #@%#&*#

Lt/C Rich Ciolino, JN

I think it began in October of last year, 2020, the COVID Year. Harbor birds were hanging out near and on our boat and were leaving annoying evidence of their visits. The dock walkway to our boat was spotted white, no matter how many times I washed the dirty smears away. The solar panel at the stern of our boat was repeatedly splattered with viscous smelling excrement. They infested the cockpit hatch cabin top, the steering wheel binnacle cover, the captain's seat, and, worst of all, the floor in our cockpit - that was too much! It was time to do something.

Our neighbor's boat, right next to us, was having similar problems. He elected to install reflectors-in-the-wind on his boat. Apparently not much help as he then resorted to anti-bird netting strung up to enclose his cockpit. This worked most of the time, but these bad_#\$%# birds would eventually find a weak spot in this armor and get to the cockpit.

A few other boats across our fairway had deployed similar defenses - how many birds are there? So, what to do? I didn't want to go the reflector and netting route mainly for the inconvenience of removing all that stuff whenever we would take the boat out, but also thinking there must be a better, more elegant, more technically challenging, perhaps fun, and more convenient way to attack this problem.

Why not a bird detector of some sort connected to a water hose weapon? Or one connected to a loud sound generator? Or one connected to a high power laser beam? I thought that whatever it was it had to be something that wouldn't disturb our neighbors, so that eliminated the laser beam and

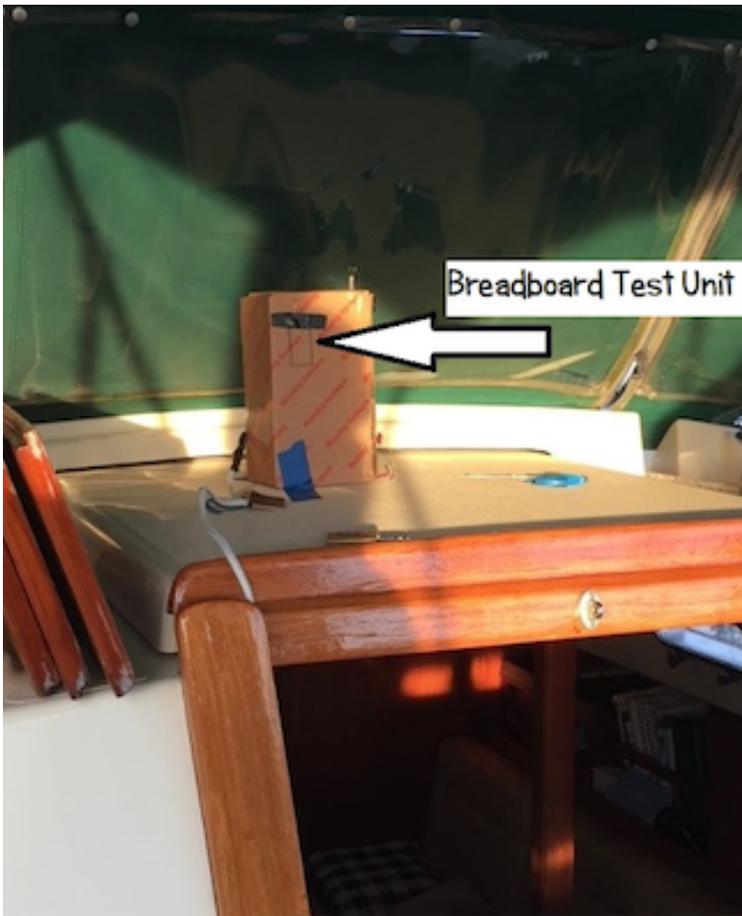


loud sound generator. Hooking up water to such a device seemed a bit more challenging and potentially messy should something go wrong with it – after all I’d expect to have whatever method I tried, operating to respond 24/7.

Whatever weapon I chose, I would have to have a reliable bird detector. Motion detectors are readily available and I felt sure I could adapt one to my needs. There are basically two types of motion detectors used commercially making them quite easy to get at a reasonable price – infrared and microwave. Without getting deeply into how these things work, which I’m sure I have only a minimal understanding of anyway, the basic way infrared detectors sense “motion” is by noticing a change in the temperature of its field of view, that is the stuff it is looking at. Then say, a warm-blooded person comes into view and changes the temperature of the scene. This is typically used for turning lights on when a person walks into a room – it’s technically NOT detecting motion. As for microwave sensors, they actually detect the motion of something in its field of view. They use the same principal as radar by sending out a signal that bounces off whatever is in view and returns to the detector. If nothing is moving in the scene the return signal looks like the signal that was sent out, but if something is moving the return signal looks different. It’s this change in the return signal that triggers the detector. As you’ll see later, that is the perfect feature for detecting birds coming into the cockpit, but in our case it also causes a problem.

Perhaps I got carried away here, but after doing a little searching on the Internet I came across a neat electronic motion detector that uses the microwave technology. I was on my way and quickly decided to go with lights and a little bit of sound, and found everything I needed on the Internet for not much money.

After some playing around with various items I settled on the following electrical parts: Microwave sensor, Relay power converter, Rotating amber light, Flashing LED lights, Computer sound beepers, Automotive electronic flasher.

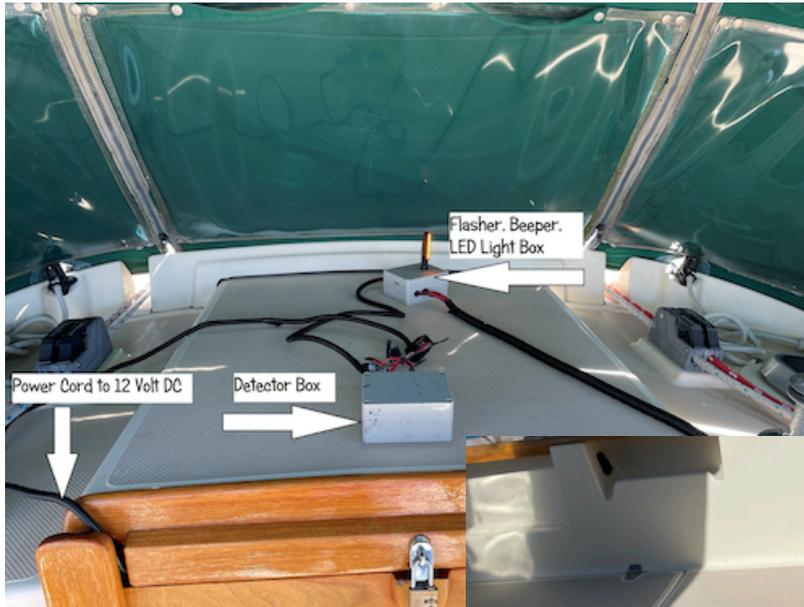


I began at home with a "breadboard", cardboard box, version to see how it would work before buying some boxes and wiring to build something for the boat. It worked well on the boat and it was there that I discovered it had quite a long range of detection, like out beyond the stern of the boat. Also, it turns out that the detector sends out its signal pretty much in all directions but is strongest straight ahead, towards the stern as installed, allowing it to pick up motion in the cockpit and the foredeck.

I mentioned a problem earlier with the detection.

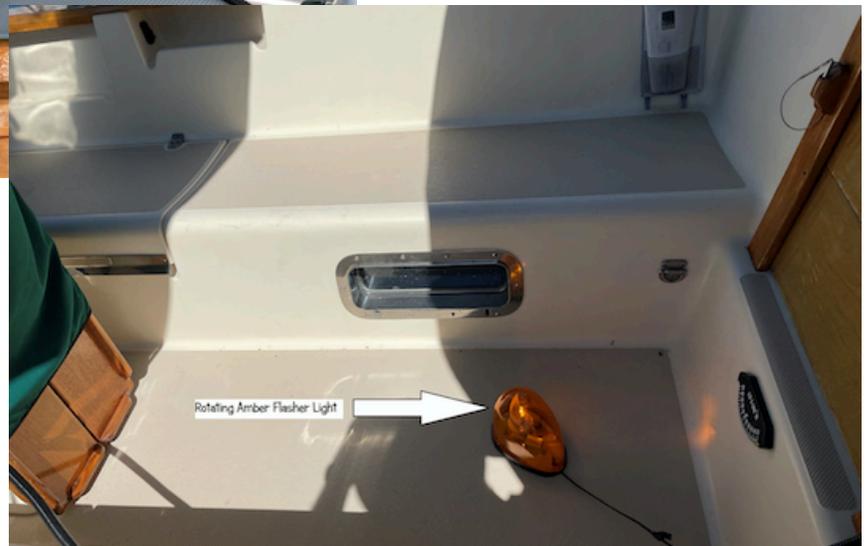
There are some stationary objects in the field of view looking to the stern. For instance, the pilings that are stuck into the bottom of the harbor. So, if the boat moves due to high wind or waves or swell, the detector sees it as if the pilings are moving which turns the "weapons" on, in essence a fake attack by the birds. Sometimes we have days and nights like this where the boat is moving, and the "weapons" accumulate a lot of fake time, of which the amber rotating light is the biggest power consumer (about 3 Amps). While a normal day of usage accumulates about one hour of on-time, a windy day could increase the on-time to eight hours or so. I did try to decrease the detector's range to reduce "fake" on-time by adding some shielding in front of the detector, and that seems to have helped. When in our slip we rely solely on our solar panels for battery power and they can handle this additional load, along with the fridge.

So, this is what the final "anti-bird system" looks like on the boat:



I did have one of our neighbors call me one evening to say he noticed a flashing yellow light on our boat as he was passing by our slip, and I assured him it was ok, just trying to keep the birds off of our boat,

and he wished me luck and assured me it didn't bother him. So, for now it seems to be working well and it was a lot of fun passing time this way. We still get new bird exhaust along the walkway to our boat so the birds, perhaps not the same ones, are still around, but so far so good. They're not using our boat any more - we're staying clean.



Jargon: What is the California Boater Card (CBC)?

Cdr. Virginia Johns, P

The California Boater Card (**CBC**) serves as proof of successful completion of a qualified course on boating safety. When fully implemented in 2025, California boating law will require all motor vessel operators to hold a CBC. As of January 1, 2021 the law applies to motor vessel operators 40 years old and younger. Our **America's Boating Course** is qualified by the State of California. It is never too soon to get your card.

We are offering this course starting April 27. You can register online at: [Register for ABC class.](#)

Course Covers:

- Safety Equipment
- Boating Operations
- Navigation Rules and Aids
- Lights and Sound Signals
- Anchoring
- Adverse Conditions
- Water Sports Safety
- Trailering
- Knots and Lines
- Federal and State Regulations
- Final Exam (5th week)



The Signal Hoist is the official publication of the Santa Barbara Sail & Power Squadron. Articles of interest to the membership should be forwarded in writing via email to the Editor by the 20th of the month in order to be included in the next issue. We solicit the submission of your articles on safety, boating, cruising, racing, and squadron activities. Accompanying relevant photos are appreciated. We encourage articles by our members. Send us your true or tall tales. Articles, opinions, and advertisements published herein do not necessarily reflect squadron policy or endorsement unless so designated.

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