

**Inside this issue**

Commodores Message	2
Board of Governors	3
2021 Awards	4
Hurricane Drones	5
Sealants and Caulks	7
Sailing Terms	10
BOG Membership	11
LSC Website	12
LSC logo apparel	13
Preliminary 2022 Calendar	14
LSC Mission and Location	15

**The New Year is almost here!**

**Soon it'll be snowing, then rain, then sun, then sailing! So spend the next couple of month fixing up the boat(s) and start getting ready!**



*Ahoy, sailors!*

It's the close out of another year, hopefully everyone's had time to winterize their boats, batten down the hatches, and start staring angrily at the ice on the lake and pretending that if it weren't for that you'd definitely be up to do some cold weather sailing. If you're anything like me, now is the time to do all the things around the house you kept putting off because the wind at the lake was too nice. Home improvement is a winter sport for sailors.

Thank you to everyone who came out and sailed this year, or just joined us for picnics, and we hope to see you all next year! I hope you all have a wonderful holiday season.

Thanks,

*Jacob Bleier*

*Commodore, Lafayette Sailing Club*



## Membership Highlights

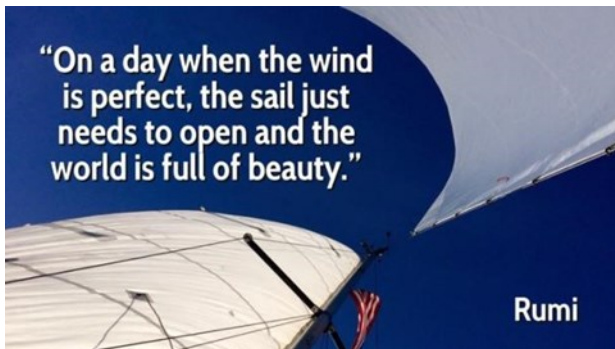
Membership in the Lafayette Sailing club is open to anyone. Membership applications can be downloaded from the club website at [www.lafayettesailingclub.com](http://www.lafayettesailingclub.com).

New applicants must obtain the signatures of two active members as sponsors before submitting an application. One way to obtain the required signatures is to visit the LSC Harbor at Lake Freeman on a weekend during a scheduled activity, e.g. races, etc..

All memberships are family memberships. There are three levels of membership with different costs and privileges. There is also a new member price at each level for a families first year of membership. All memberships include the use of club sailboats, as well as attendance at all LSC activities.

Membership with voting rights, harbor launch privileges and (1) boat storage—\$285/\$225 (first year)

Additional boat storage for any class of member is \$85/year/boat.



## Board of Governors

### Officers



Commodore—Jacob Bleier



Vice-Commodore — Barb Nolan



Recording Secretary — Cary Troy



Treasurer — David Klenosky

### Directors

Membership — Bill Ferner

Club Fleet — Jim Keller

Race — Mike Nolan, Jacob Bleier

Grounds — Carl Griffin

Social — Rosie Caldwell

Cruising—Lewie Wallace and  
Randy Carie

Communications — Mike Nolan

Sailing School—Mike and Barb Nolan

### Members at Large

Dave Dugger



# 2021 Awards

Turtle Award-Jacob Bleier

Racing

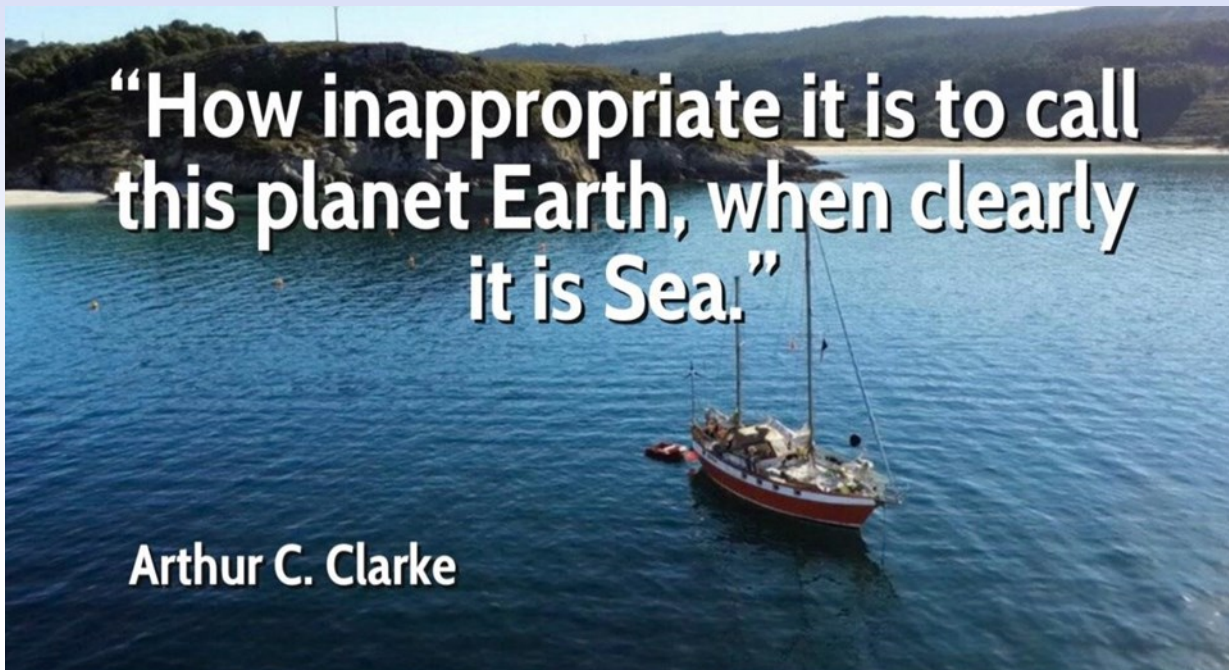
Champion-Jacob Bleier

2nd Place-Barb Nolan

3rd Place-Dave Keller

Peterson Award-Rosie Caldwell

Sportsperson Award-Donna Keller



# These boat drones are designed to sail directly into the eye of a hurricane

Reprinted from CNN



The brightly-colored robotic boats made by Saildrone seem to have a death wish.

Saildrone makes autonomous ocean vessels to study the environment. This summer, the Silicon Valley startup sent five of its vessels directly into the path of hurricanes in the Atlantic Ocean. While airplanes can fly through hurricanes, the screaming winds kick up such huge waves that attempting to sail boats right into them is something best to be avoided.

Saildrone's vessels are uncrewed, and built to survive hurricane winds and huge waves. Scientists are excited that the vessels could improve our understanding of how storms intensify.

"If you're in the center of a hurricane at those type of wind speeds, the ocean is just this big, frothy mess right there where the water begins and the air ends," National Oceanic and Atmospheric Administration director of engineering Chris Meinig told CNN Business. "I cannot imagine purposely flying a plane or a ship into a hurricane. I'd much rather send these robots in there and have them do their work."

Saildrone has a partnership with NOAA to study how hurricanes form, including their rapid intensification. Hurricane Ida, which struck the Gulf Coast before traveling to the Northeast recently, grew from a Category 1 to Category 4 storm in less than 24 hours.

Saildrone's vessels are 23-feet long and have four cameras on them. They measure wind as well as the temperature of the ocean and the air.

Saildrone CEO Richard Jenkins told CNN Business that they're focusing their attention on the spray and foam on the water during a hurricane. They want to understand how energy and heat are exchanged between the ocean and atmosphere. Data is streamed back to Saildrone's Alameda, California, offices in real time, he said.

"No one's ever observed what happens to waves of froth to spray in the center of hurricane. So we're hoping that we can see with the camera what the water looks like," Jen-

Jenkins said.

Saildrone told CNN Business that all five of its vessels have survived the hurricane season thus far. The drones are in the Atlantic Ocean, so weren't in the path of Hurricane Ida in the Gulf of Mexico, which killed at least 78 people across Louisiana and the Northeast recently, but Saildrone said it also plans to study storms in the Pacific Ocean.

Saildrone and NOAA have previously studied oceanic conditions near Alaska. Saildrone told CNN Business that it's sailed over 500,000 miles to date, and claims that in 2019 it became the first uncrewed vehicle to circumnavigate Antarctica.

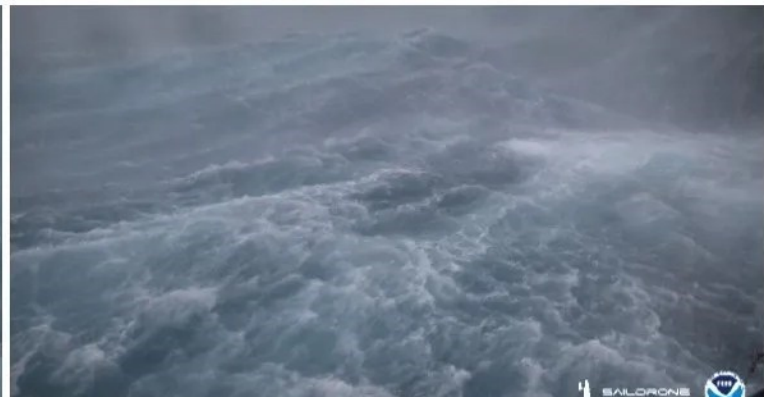
Saildrone's other customers include NASA, the US Coast Guard, the Department of Defense as well as universities. Saildrone has made about 100 vessels and plans to make more, including larger vehicles.

Jenkins said that concerns about the climate motivate his team.

"The oceans are really driving our global weather and climate," Jenkins said.

"Understanding the rate of change is going to really give us deep insights into our future and how we might need to change things."

Photos from the drone inside a hurricane



# How to Select Sealants & Caulk

Courtesy West marine-Tom Burden, 6/1/2020

## What Sealants Do

Sealants form a watertight and airtight seal between two or more surfaces. Some sealants provide an adhesive bond (often supported by mechanical fasteners); others are used to isolate one surface from another against electrolysis, vibration or noise.

## How Sealants Work

Unlike glues, which usually cure as a relatively brittle solid, sealants cure to a tough, flexible, rubbery consistency, adhering to surfaces to prevent water or air from penetrating. Because sealants are permanently flexible, they can withstand some movement of the surfaces to which they are bonded without losing adhesion. The bonding strength of sealants varies from moderate to extremely strong—which in the case of some sealants can be considered nearly permanent. Curing time can range from hours to a week or more. Some sealants cure most rapidly in the presence of moisture.

## What Materials Are You Bonding/Sealing?

More than anything, the application and the kind of materials you plan to bond will influence what type of sealant you need. Determine the material of the surfaces you want to bond or seal and consult the compatibility chart (below). Make sure that if the surfaces are dissimilar materials, the sealant works with both of them.

## How likely is it that the bond will need to be broken?

Marine adhesive removers like Anti Bond 2015 debond and aid in the removal of most polyurethane sealants. Some products, like 3M 5200, have a reputation for secure bonding that should not be taken lightly. We've seen a 10,000 lb. keel which was put on with 5200 that held so strongly, it practically delaminated the hull during an attempted separation. Use compounds with less tenacious adhesive qualities if you know that you'll have to remove the item at a future date, for example when bedding deck fittings. 3M's Fast Cure 4200 has half the strength of 5200, which (with some effort) allows for disassembly of parts.

A bond created with 3M 5200 may last forever, so you are in a pickle if you later decide to separate the two surfaces. The solution is a marine adhesive remover like Anti-Bond 2015, which breaks the bond between the adhesive and the substrate, so deck hardware can be removed. Penetration can be encouraged by first scoring the edge of the bond with a blade, which might be required in the case of winches or other hardware that have been in place for years. Anti-Bond 2015 can be a real life saver in the case of hardware that is difficult to remove.

## Is the use below the waterline?

Above or below the waterline: Sealants that use talc or similar water-absorbing materials can fail if immersed for long periods of time, therefore they are not suitable for

underwater application. Silicone-based sealants used to fall into that category too, but many of them have been reformulated for underwater use.

## Sealants and Caulking Compound Formulations

**Polyurethane:** Recommended for permanent bonding because of its enormous adhesive strength of about 700psi, polyurethane is more of an adhesive than a sealant. It is good for hull/deck joints and bonding thru-hull fittings but incompatible with ABS and Lexan, and does not adhere well to many other types of plastic. Polyurethanes have poor resistance to oil and the acids used in products such as teak cleaners. Do not use polyurethane-based sealants if the bonded items might have to be separated in the future.

**Silicone:** Versatile, quick and easy to use, elastic and highly resistant to chemicals, silicone is excellent for isolating dissimilar metals. It is not as strong in adhesive strength as polysulfide or polyurethane. Depending on compression from mechanical fasteners to maintain its grip, it's more of a gasket material than a sealant, but is compatible with plastics. A big disadvantage is that silicone caulks leave a silicone-based residue behind that's difficult to remove, to which nothing will adhere, including fresh silicone or paint (silicone is not paintable either, but polyurethane, polyether and polysulfide are).

**Polysulfides:** Perhaps the most versatile sealants available are synthetic rubber sealants called polysulfides. Two-part polysulfides, such as Life-Calk Deck Seam Sealant, have long been popular as caulking material for teak decks or for bedding wood parts like rubrails and cockpit coamings. One-part polysulfides, like Life-Calk, are easier to use, just as durable, but slower to cure. Both bond well to most surfaces but oily woods (such as teak) should be primed with Life-Calk Primer.

We don't recommend polysulfides for bonding plastic, as they will melt some types. You shouldn't use polysulfide to bed plastic windshields or plastic portlights, either acrylic (Plexiglas) or polycarbonate (Lexan). Don't use it to bed plastic deck fittings or portlight frames, either. They're usually made from ABS or PVC, and polysulfide will attack both. You can safely bed plastic fittings made from epoxy, nylon or Delrin with polysulfide.

**Polyether:** One of the most exposure resistant sealants, unaffected by teak oils or cleaners, permanently flexible, and sandable. West Marine Multi-Caulk is an excellent choice for wood, metal, or fiberglass but will attack some plastics. However, 3M 4000UV is rated as being safe for all plastics.

**Flexible epoxy formulations:** New epoxy variations, like Pettit FlexPoxy and WEST System G-Flex, are more flexible and less brittle than traditional epoxies. They cure faster than some polyurethanes, adhere well to many materials and may be another alternative to consider when you want a permanent and somewhat flexible bond.

### How quickly do you want it to cure?

**Curing time:** Despite many advances in the development of marine sealants one thing has not changed: They all require various periods of time to cure properly. Frequently, the most tenacious and best-performing products take the longest time to cure. Here are a couple of examples: Life-Calk, preferred for deck seams, takes 10-20 days for a complete



cure. 5200, the strongest slow-cure version, takes 5-7 days.

These slow-cure products provide lots of working time, but also can potentially prolong a haulout or confine you to the dock over the weekend. Make sure you plan ahead. Even if you are able to use the boat, you could easily damage the bond depending what part of the boat is affected. On the other hand, moisture in the air or dew on the decks may accelerate the cure of products like polysulfides or polyurethanes. The cure can also be speeded up by misting water onto the exposed glue line.

### Sealant Smarts

None of these sealants do a good job unless you follow the right application plan. Here are some basic rules that will make your "goo" work for you:

**Prep work:** Make sure that both of the surfaces are clean and dry. Peel or scrape away every bit of the old sealant and wipe down the mating surfaces with acetone.

**Read the label:** The time it takes for a sealant to "skin over" and begin to cure varies. So in order to ensure that you have enough working time, know the properties of the sealant before you begin. Excess sealant can be cleaned up with the appropriate solvent. The best solvent to use for cleanup should be stated on the label.

**Mask off the edges for a neat appearance:** To give hardware and other items a neat appearance when bedded with polyurethane or other sealant, apply masking tape to the edge of the hardware and to the substrate, allowing about 1/8" between the two masked edges. After masking the edges, you can remove the excess sealant with a caulking tool (which works better than your finger) before pulling away the tape. ,

**Use enough:** Apply a liberal coating of the caulk so that it will squeeze out around the entire perimeter of the joint. If you don't see that "good squeeze-out" the joint will likely leak. This and other West Marine technical articles can be accessed at <https://www.westmarine.com/WestAdvisor/West-Advisor-Articles>

## Sealant Selection Chart

●● = Better, ● = Good, NR=Not Recommended

Applications		West Marine			3M				
		Multi-Caulk	Silicone	Polyurethane	4000UV	4200FC	5200	5200FC	Silicone
Wood to:	Metal (Deck/Hull Hardware)	●●	●	●	●●	●	●	●	●
	Wood (Wood Trim)	●●	●	●	●	●	●●	●●	●
	Deck Seams (Teak, Other Woods)	●●	NR	NR	●●	NR	NR	NR	NR
	Underwater Wooden Hull Seams	●●	NR	●●	●●	●●	●●	●●	NR
	Thru-Hull Fittings (Wooden Boat)	●●	●	●	●	●	●●	●●	NR
	Glass, sealing only	●●	●	NR	●	NR	NR	NR	●
	Lexan™ Plastic	NR	●	NR	●●	NR	NR	NR	●
	Plastic Hardware, ABS, Nylon	NR	●	●●	●●	●●	●	●	●
	Rubrails	●●	●	●●	●●	●●	●	●	●
Fiberglass to:	Metal (Deck/Hull Hardware)	●●	●	●	●●	●	●	●	●
	Fiberglass	●	●	●●	●●	●●	●●	●●	●
	Thru-Hull Fittings (Fiberglass Boat)	●●	●	●●	●	●●	●●	●●	NR
	Glass, sealing only	●●	●	NR	●	NR	NR	NR	●
	Lexan™ Plastic (ABS, nylon)	NR	●●	NR	●	NR	NR	NR	●●
	Plastic Hardware	NR	●	●●	●	●●	●	●	●
Glass to:	Rubrails	●●	●	●●	●●	●●	●	●	●
	Metal (Windshields), sealing only	●●	●	NR	●	NR	NR	NR	●
Other:	Vinyl	NR	●	NR	●	NR	NR	NR	●
	Deck to Hull Joints	●●	●	●	●	●	●●	●●	NR
Attributes:	Sandable (Y=Yes, N=No)	Y	N	Y	Y	Y	Y	Y	N
	Paintable (Y=Yes, N=No)	Y	N	Y	Y	Y	Y	Y	N
	Chemical Resistant (Y=Yes, N=No)	Y	Y	N	N	N	N	N	Y
	Gluing/Adhesion, fiberglass/wood	●	●	●	●	●	●●	●●	●
	Cure Rate (F=Fast, S=Slow)	S	F	F	F	F	S	F	F

# Sailing Terms

Check these out! There must be at least one (or more) that are new to you!

**ABACK** – A sail is aback when the wind fills it from the opposite side to the one normally used to move the vessel forward.

**ABEAM** – At right angles to the keel of the boat, but not on the boat.

**ABSOLUTE BEARING** – The bearing of an object in relation to north. Also called True North.

**AIDS TO NAVIGATION (ATON)** – Artificial objects to supplement natural landmarks indicating safe and unsafe waters.

**ALEE** – Away from the direction of the wind. Opposite of windward.

**ANCHOR RODE** – The anchor line, rope, or cable connecting the anchor chain to the vessel.

**APPARENT WIND** – The combination of the true wind and the headwind caused by the boat's forward motion.

**ARC OF VISIBILITY** – The portion of the horizon over which a lighted aid to navigation is visible from seaward.

**ATHWARTSHIPS** – At right angles to the centerline of the boat; rowboat seats are generally athwart ships.

**BACKSTAY** – Stay extending from the ship's mastheads to the side of the ship.

**BARBER HAULER** – A technique of temporarily rigging a sailboat lazy sheet so as to allow the boat to sail closer to the wind.

**BAREBOAT CHARTER** – An arrangement for the chartering or hiring of a vessel, whereby the vessel's owner provides no crew or provisions as part of the agreement.

**BEAM** – The greatest width of the boat.

**BEAR UP** – To turn or steer a vessel into the wind.

**BECKET** – A short piece of line usually spliced into a circle or with an eye on either end.

**BEND** – A knot used to join two ropes or lines.

**BERMUDA RIG** – A triangular mainsail, without any upper spar, which is hoisted up the mast by a single halyard attached to the head of the sail.

**BITTER END** – The last part of a rope or chain. The inboard end of the anchor rode.

**BLOCK** – A pulley with one or more sheaves or grooves over which a line is roved.

**BLOCK, FIDDLE** – A block with two sheaves in the same plane, one being smaller than the other, giving the block a somewhat violin appearance.

**BLOCK, SNATCH** – A single sheave block with one end of the frame hinged and able to be opened to admit a line other than by forcing an end through the opening.

**BOLLARD** – Short post on a wharf or ship to which the lines are tied.

**BOLTROPE** – A strong rope or line that is stitched to the edges of a sail.

**BOOM CRUTCH** – A frame in which the boom rests when the sail is not hoisted.

**BOXING THE COMPASS** – To state all 32 points of the compass, starting at North and proceeding clockwise. Sometimes applied to a wind that is constantly shifting.

**BRIDLE** – A line or wire secured at both ends in order to distribute a strain between two points.

**BRIGHTWORK** – Varnished woodwork and/or polished metal.

## 2022 BOG Membership

The Board of governors (BOG) is always looking for member input and/or new members. The BOG meets (usually over dinner and drinks) about 10 times per year to run the club. Not really a lot of work, but a great way to learn a lot about the club, learn about sailing, and it gives you a great reason to hang out with the rest of us once a month!!!

You can join us if you want; either as an official BOG officer or just as a member. No experience necessary. Just let Commodore Bleier or Mike Nolan know and we can get you the meeting schedule time and place.

### **LSC has teamed Up with BoatU.S!**

BoatU.S. provides a vast range of services, information and savings to recreational boaters, including:

- Members-only discounts and Member Rewards with West Marine equipment purchases
- Discounts on fuel, overnight slips, and repairs at more than 900 marinas nationwide
- BoatU.S. will pay up to \$50 per incident On-The-Water Towing with your basic membership
- Access to high-value, low-cost group-rate boat insurance
- Full year subscription to the award-winning BoatU.S. Magazine

Now you can get 50% off of annual Membership dues when you join the nation's largest association of recreational boat owners. You pay one-half of the regular BoatU.S. dues of \$30 – that's just \$15.00 a year! For more information, go to <http://www.boatus.com/> and be sure to mention our Co-operating Group ID number GA84516S to get the specially reduced rate.



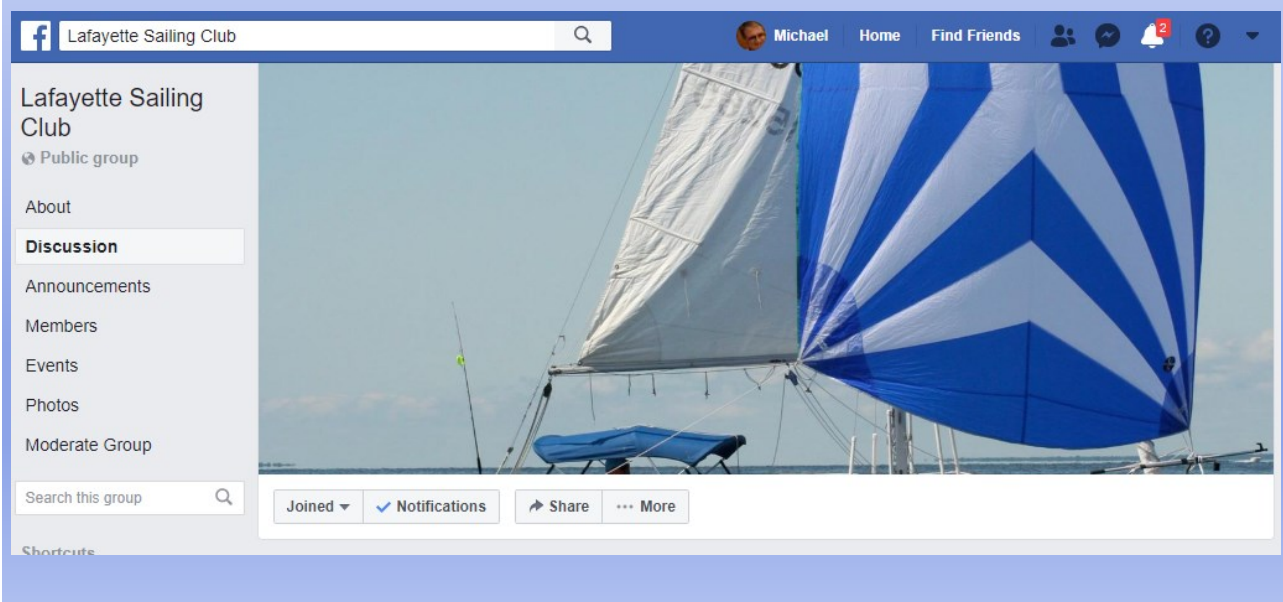
## What's on the website!

Check out the LSC website at <https://lafayettesailing.com/>

You can find all sorts of useful information and pictures there including membership registration forms as well as event dates, contact information, newsletter archives and more!

## Find us on Facebook

The Lafayette Sailing club has a Facebook presence. We will try to post pictures, news events, and invitations to activities. It's a good way to get ourselves out in front of the community. Check us out, join the group, and contribute your pictures!!!



# Look good this sailing season!!!!

## Club logo apparel available!

LSC has partnered with Coral Reef Sailing to produce LSC logoed apparel and other items. The apparel is high quality and includes the LSC logo and name on each item. Two more lines of custom text can be added to most items if you wish. LSC receives a small percentage of each sale, so your purchases help out the club! LSC has been added to the SHIPS STORES link on Coral Reefs ships stores page, but you can directly access our page at <https://www.coralreefsailing.com/index.php/club/lafayette-sailing-club.html>.



Cotton Hat (Lafayette Sailing Club)

★★★★★

\$22.00



Unisex Mesh Polo (Lafayette Sailing Club)

★★★★★

\$32.00



Men's Short Sleeve Tech Shirt (Lafayette Sailing Club)

★★★★★

\$32.00



Men's Long Sleeve Tech Shirt (Lafayette Sailing Club)

★★★★★

\$35.00



S/S Adult Cotton Tee (Lafayette Sailing Club)

★★★★★

\$22.00



Columbia Women's Benton Springs (Lafayette Sailing Club)

★★★★★

\$62.00



Columbia Men's Steens Mountain Fleece (Lafayette Sailing Club)

★★★★★

\$60.00



Unisex Hooded Rugby Pullover (Lafayette Sailing Club)

★★★★★

\$58.00

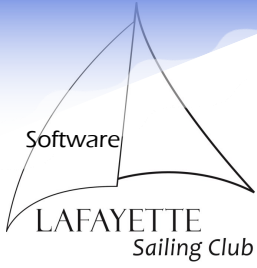


# Preliminary 2022 Calendar

This calendar is subject to change, but this is what we think the 2022 sailing season will look like.

- ◆ Board of Governors meetings—2nd Wednesday of each month at 7pm
- ◆ March Cruise—Wednesday, March 16th—Sunday, March 20th, Lake Carlyle, Illinois
- ◆ Spring Callout—Friday, April 22nd
- ◆ Harbor Opening—Saturday, April 23rd, 10am
- ◆ Sailing School, Session I—Mondays, April 18th and April 25th, 7pm
- ◆ Summer Racing Series—Usually every Saturday at noon (Sunday at 1pm if there is a Saturday conflict or bad weather). Starts on Saturday, April 30th and ends on Saturday, October 8th
- ◆ Spring Cruise— Thursday, May 12th-Sunday, May 15th, Lake Mississinewa
- ◆ June Regatta—Saturday and Sunday, June 4th and 5th
- ◆ Midweek Racing (**NEW**) - we will pick one day every week (based on the weather forecast) to run a semiformal-self timed race. We will normally start around 6pm, but the start times will be flexible to handle different schedules. Midweek racing begins June 6th and runs till August 5th.
- ◆ Sailing School, Session II—Mondays, June 13th and June 20th, 7pm
- ◆ LSC Open House—Saturday, June 26th, 10am
- ◆ Summer Cruise—Friday, July 15th-Sunday, July 24th, Door County, Wisconsin
- ◆ August Regatta—Saturday and Sunday, August 6th and 7th
- ◆ Fall Cruise—Thursday, September 29th-Sunday, October 2nd, Michigan City

Lots of things to do! A full-detailed calendar will be emailed to members early in 2022. Dates will also be posted on the website at [www.lafayettesailing.com](http://www.lafayettesailing.com)



The Lafayette Sailing Club is an organization composed of individuals and families interested in sail boating and sail boarding. The club was originally formed in 1969 by a small group of Purdue University and Lafayette area individuals interested in sail-boat racing.

Membership is open to anyone interested in sailing. The club maintains it's own harbor on Lake Freeman. Members may park their boats at the harbor. The club also owns three sail-boats available to any member.

Membership information can be obtained at <http://www.lafayettesailing.com>

