

BOWSPRITZ

Newsletter of the Port Jefferson Yacht Club

[http:// www.portjeffersonyachtclub.com](http://www.portjeffersonyachtclub.com) March 2018

Commodore's Comments

Ed and I took a short trip down to Florida to visit family last week. Although we love seeing sisters and brothers we are getting wiser in that we don't stay with the family anymore. After a while you and I know what they say about house guests. So we stayed in a hotel right on the ocean and drank Bloody Marys' by the poolside. It was wonderful. Of course every day we would wistfully look out at the water to see if there was a sailboat crossing our field of view. We are getting anxious to put Smoke and Mirrors back in the water and before you know it that will come about.

As you probably know the docks will go in the water the end of March. The repair to the waterfront is still a work in progress. I have reached out to the town of Brookhaven and the Village of Port Jefferson to see if either of them could assist us. So far I have not received any positive response. I will however be meeting with Mayor Garant this week and I will once again mention our situation. Our lease is pretty clear (if you take the time to read it) stating that we are responsible to maintain our leased property. We are moving forward and will have some type of resolution by the time our boats are in the water and the season is off to a start.

Diane MacDonald has some wonderful marketing ideas. She and Jay Rose have the sailing school program up on the website and we are hopeful that both the Junior Sail and the Adult Sailing lessons will be a very successful endeavor this year.

Racing, with the help of Dave Hubbard, is also up on the web page. I am hopeful that more of you will join us on Tuesday nights. If you have not raced with us I can only say you are missing a good time. So sign up and see how much the club has to offer if you only take advantage.

We are preparing for the open house that is scheduled for April 19th. We will have the bar open and very light snacks but if you stop in you will show those potential new members what a wonderful bunch of folks we are - bring you smiles.

Commissioning (May 20th) and the Commodore's Cocktail Party (April 21st) are coming up soon. We of course would like to look our best on those days so come on down and give Jeff Hausner a hand on our ALL HANDS ON DECK DAYS (3/24 and 3/31). You know that old saying....many hands make light work.

Stay warm and before you know it we will be enjoying summer days.

Laurina Nielsen

Dock and Floats March 2018 News Letter

The dock work party on March 3 was an outstanding success. While disassembling the docks to install the balance of the new connectors, we found two ends that needed replacement. Both ends were repaired and almost all dock work was completed. So much was done that the docks could be launched now and the few remaining items could be completed with the docks in the water. But I plan on doing everything on land. Electric and water utilities have been installed on the East floating dock but the final connections still have to be made. The electric line still needs to be run under the East fixed dock and the dingy dock signage needs completion.

That leaves the restoration of both fixed docks. The aftermath of the January Nor'easter left the decking on both docks a shambles. A combination of waves and an extremely high tide loosened and broke decking. Failure was due to the waves and the fact that the galvanized fasteners used are no longer functioning. The next work party will focus on re-fastening all decking on both fixed docks. Work party dates will be announced via e-mail

January's storm also devastated our waterfront as shown in Laurina Nielsen's Bowspritz article. We will be applying for a DEC permit to allow us to remedy the damage. The costs may be significant and once we get a permit we will have several years to fund the project and complete the work that was started in 2007.

This season we will have a charter catamaran operation off our docks as a transient and paying transient rates. He expects to be on the dock a maximum of six hours for each charter and will be paying our published rate and following the dock rules as published in the BOWSPRITZ.

Alan Johnson, Director of Docks and Floats

Kinsale For Sale— \$25,500.00

1987 Ericson 32-3. Kinsale is clean and well maintained boat with many improvements by both her current and previous owner.

- Universal 23HP M25XP diesel engine
- 12V Adler Barbour refrigeration in working order (spare unused) controller
- 2 burner CNG stove/oven, with CNG tank,
- Pressure hot and cold water rebuilt 2014,
- 30amp shore power with twist lock power cable,
- Cushions, excellent condition re-covered in 2010
- House batteries: 2 group 24 – replaced 2016, starting battery: 1 group 24 replaced 2018
- Barrier coat 2012
- Winter Cover 2014
- Asymmetrical cruising chute with sock. In excellent condition
- Mainsail 2012, 125% genny with foam luff from around 2001 very good, 135% genny - this was the original genny
- Dodger, serviceable but should be replaced, mainsail cover, frame for Bimini.
- electronic holding tank gauge installed 2014,
- mast rebuilt in new standing rigging, mast painted white
- new 12v wiring, new anchor, steaming and foredeck lamps 2009,
- winter cover 2014, mainsail 2012
- lifelines with gates new in 2012
- cutlass bearing rebuilt in 2012, stuffing box 2017, , ,





PJYC
2018 Social Calendar



March	Saturday, 17th	St. Patrick's Day Party
April	Friday, 6th	Game Night
	Thursday, 19th	Open House
	Saturday, 21st	Commodore's Cocktail Party
May	Friday, 4th	Cinco de Mayo Party
	Sunday, 20th	Commissioning
June	Saturday, 2nd	Fishing Tournament Begins
	Saturday, 3rd	Fishing Tournament Ends
	Saturday, 16th	Harbor Cup
	Friday, 22nd	Game Night
July	Saturday, 21st	BBQ & Peaches Cook-off
August	Saturday, 11th	MSSA ACS Regatta
	Saturday, 18th	BBQ & Corn Cook-off
September	Saturday, 8th	Village Cup
	Saturday, 15th	Dragon Boat Race
October	Saturday, 27th	Halloween Party
November	Saturday, 10th	Dinner Dance
December	Sunday, 9th	Annual General Meeting

The Tell-Tales Bar is open every Friday night year round at 7pm.

Tuesday – Canasta (text 631-512-1068 to confirm in case of unscheduled cancelation).

Wednesday – Poker except the second Wednesday of the month (text 631-512-1554 to confirm in case of unscheduled cancelation).

Please contact Karen Jahnsen at 631-473-5734 or syckarenj@aol.com if you are interested in hosting or helping with any of the events below or if you would like to host an event not listed.



Harborside Marine is Port Jefferson's only on water marine service facility. Our office & shop is located in Port Jefferson on the harbor! We offer service 7 days a week at your slip or mooring with our mobile work boat, or make an appointment & bring your boat to our dock. Experienced, trained technicians, & professional customer service. All engine makes/models, gas/diesel, power or sail, electronics, fiberglass, rigging, canvas/upholstery...WE DO IT ALL!!

PJYC MEMBERS !!!!

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***** FACTORY TRAINED TECHNICIANS *****
***** ABYC CERTIFIED MARINE ELECTRICIANS *****

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BATTERY TESTING & REPLACEMENT
IMPELLER ! WATER PUMP REPLACEMENTS
BILGE PUMPS & NAVIGATION LIGHTS
STUFFING BOX REPACKING
FUEL INJECTOR CLEANING ! SERVICE
CARBURETOR REBUILD ! CLEANING
LED UNDERWATER LIGHTING
ELECTRONICS INSTALLATIONS
SAFTEY & FUNCTION CHECKS
RIGGING INSPECTIONS & MAST TUNING

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VISIT OUR WEBSITE & LIKE US ON FACEBOOK!

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BOARD OF GOVERNORS/COMMITTEES—2017

CLUB OFFICERS

Commodore	Laurina Nielsen	827-0049	laurina_n@hotmail.com
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Rear Commodore	Karl Jahnsen	473-5734	cjcpas@aol.com
Fleet Captain	John Pearson	914-319-7383	redskyj105@gmail.com
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Judge Advocate	John Ciarelli	265-7567	johncli@aol.com

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Launch & Moorings	Joe Yorizzo	979-1794	unitedart@aol.com
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House	Jeff Hausner	516-459-3529	jwh@intelli-tec.net
Grounds	Ed Nielsen	742-2040	enhiii@hotmail.com
Social	Karen Jahnsen	473-5734	syckarenj@aol.com
Education	Diane MacDonald	646-546-0644	diane@womanalive.com
Past Commodore	Joe Yorizzo	979-1794	unitedart@aol.com

COMMITTEES

Membership (Chair)	Ralph Segalowitz	689-7395	rsegalow@yahoo.com
	Tim O'Mara	846-4177	chillinonahd@yahoo.com
	Joan Fortgang	473-2160	sailormom@optimum.net
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	John Doherty	751-8643	
	Charlie Masone	331-3905	Charlie.masone@gmail.com

SERVICES

Cruising	Heather & Ken Babits	331-1798	raison10@optonline.net
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Bowspritz	Vic Suben	246-5170	vsuben@optonline.net
E-Mail (mass)	Gene Stark	474-5187	email@portjeffersonyachtclub.com
Bar	Jean & John Doherty	751-8643	seapeace@live.com
Club Rentals	Kevin Mularkey	732-4397	jankev@optonline.net
Ships Store	Dave & Ellen Diamond	473-2473	davidjdiamond@optonline.net
Yearbook	Dianna Stackow	689-6957	ds@grms.com
Harbor Cup	Sean Heffernan	751-6626	johnheffernan@optonline.net
Publicity	Joe Yorizzo	979-1794	unitedart@aol.com
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Work Assessments	Ed Nielsen	724-2040	enhiii@hotmail.com
Director, Sail Training	Jay Rose	210-4019	jay.rose@nyu.edu

Emergent Technologies, Evolving Hazards

New lithium-ion batteries pack a lot of energy. Here's why that could be a problem on boats.

Boatbuilders have long been obsessed with shaving weight to improve efficiency and boost speed, especially when it comes to high-tech professional racing sailboats. So it's no surprise that the Volvo Ocean Race team Emirates New Zealand opted for the latest, greatest, and lightest in marine batteries when they installed Mastervolt MLI 24/160 lithiumions (commonly called Li-ion) in their boat, Camper. That produced a battery weight reduction of about 70 percent, though at a retail cost of tens of thousands of dollars. As the technology matures and costs drop, however, the batteries we see on high-tech boats like Camper today will trickle down to recreational boats like ours, tomorrow. Unfortunately, a lack of knowledge about these batteries could also cause a trickle-down of new dangers.

When Li-ions first appeared on boats, they presented a significant risk. "We had one in Playstation [the Maxi-cat that set a trans-Atlantic speed record in 2001] and it caused a serious fire," said Tom Weaver, owner of Eastport Yachts and managing partner of Weaver-Price Design & Construction. "The weight advantage was huge, but when charging, the lithiumions were super-volatile."

And while this technology has certainly become better in recent years, some danger remains. According to Ed Sherman, the author of *Advanced Marine Electrics and Electronics Troubleshooting*, "It's still the Wild West out there when it comes to lithium-ion systems. Thank goodness we have these cutting-edge sailboat racers who can act as early adopters, and help work the bugs out. But the technology is still so new and it's moving so fast, that even in some well-engineered systems, there have been unexpected issues."



Batteries, like these conversional wet-cells, have always had the potential to start fires due to their high energy content. These caught fire when an errant wrench contacted both terminals (Claim #0205712). Newer technology batteries with higher capacities and less forgiving charging characteristics will require even more caution along with sophisticated monitoring.

All Juiced Up

Of course, battery fires have always been a hazard on boats. But as the nature of batteries evolves, the nature of the threat evolves as well. The key to keeping this hazard in check? Understanding these changes.

In the past few years, numerous examples of computer and cell phone battery fires resulting in mass recalls have shared one thing in common: Whether it's a wafer-thin half-ounce power cell or a 400-pound behemoth of a car battery, Lithium-ion has been the culprit. But Li-ions have a long list of significant advantages over traditional batteries — they're lighter; they hold their charge better; can handle more charge/discharge cycles; and don't have charge-memory problems. These advantages are significant, especially when you compare hard numbers. A Li-ion has the ability to store up to between 125 and 180 watt-hours per kg of battery, while an average NiMH (nickel-metal hydride) battery can store closer to 100 watt-hours per kg and a common lead-acid battery stores less than half that amount. Unfortunately, since Li-ion batteries represent the latest technology has to offer, we haven't necessarily figured out the best and safest ways to store the punch that they pack.

The basic way these batteries work is the same as traditional batteries: Electrons move across an electrolyte, between an anode and a cathode, to create a flow of electricity. Since lithium is a highly-reactive alkali metal, it's possible to cram more energy into a smaller space. All that power, however, tends to cause overheating in certain circumstances. Insulat-

"We really need to start thinking about Li-ions as systems," Sherman explained, "not just as batteries we use and then re-charge with a charger. They need to be controlled and managed precisely, because failure is always a possibility with any series of circuits. And in this case, there's a lot of power to deal with."

The American Boat and Yacht Council's vice president and technical director, John Adey, agrees. "The amp rates can be enormous, and the cells in Li-ions need to be equally charged and monitored for temperature and equalization. So you really need a high-end monitoring system," he said.

If Li-ions are dangerous, why haven't we heard more about high-tech battery fires on boats in specific? For the most part, because so few are currently in marine use. In fact, Weaver is one of the few boatbuilder/ designers around with extensive Li-ion experience going back over more than a decade. And in his opinion, even today, Li-ions are still too dangerous for recreational boating use. "For a professional racing sailboat saving 10 pounds is like the holy grail, much less saving 100," he said. "But I've seen boats on fire because of them and I wouldn't even consider putting one on a recreational boat just yet. Even when we use them for dayracing, we actually keep the batteries on a separate boat, and run them out just before the beginning of the race."

As the expense drops and technology advances, however, the popularity of Li-ions is sure to grow in the recreational marine marketplace. And that means boaters need to get ahead of the curve. Fortunately, organizations like ABYC are already on the job. "We're laying the groundwork for new battery system standards now," Adey said. "We'll have them done by July, and they should be out by the following July."

High Returns

As both Sherman and Adey point out, using the latest and most advanced monitoring systems is a big part of reducing the danger of Li-ions. These systems include microprocessors which can "talk" with the battery to vary the charge characteristics from start to finish, as well as providing over-current protection. Merely hook up your Li-ion to a standard marine battery charger which blindly pumps out juice, and you'd be asking for trouble.

Unfortunately, this isn't where battery charger problems end as they relate to onboard fires. We want our power and we want it fast, and regardless of battery type, that translates into higher amperage demands. Simple single-stage bulk chargers are available these days all the way up to 50 or more amps. That's a lot of power, and trying to cram it quickly into a battery of any sort doesn't work very well because batteries don't charge in a linear fashion. When they're fully or mostly discharged they can accept a charge quickly, but as they become closer and closer to fully charged, they accept less and less juice. That's why "smart" multi-stage chargers, which sense the battery's state and reduce charge accordingly, are far less likely to cause problems.

Just what exactly happens inside a battery, if a not-so-smart and all-too-potent charger is used to jam power into it? It can overheat and explode, or it can cause venting. Since the gas that escapes from a lead-acid battery is hydrogen (a small amount of which is created when charging most batteries, hence the constant need for good ventilation), this can create a major hazard. Hydrogen gas is extremely explosive, and can be set aflame by electrical accessories other than the battery and charger if it gathers in an area that's not 100-percent spark-protected.

Worse yet, in the case of a Li-ion battery, venting can occur in the form of open flames. Li-ions become more unstable when overcharged because the lithium forms a metal plating on the anode, while the cathode becomes an oxidizing agent and produces carbon dioxide, increasing pressures inside the battery cells. If the charging continues, eventually the battery will release that pressure — period.

The likelihood of encountering these types of problems on boats grows as we grow our own desire for power. In the past five to 10 years, larger electric outboard and inboard propulsion systems, the use of more inverter-driven onboard accessories, and generally increased electrical demands has expanded our use of larger and more potent battery banks. Couple these needs with the newer and less thoroughly vetted technologies, and it's easy to see why fire concerns are growing, rather than shrinking. Today those concerns may be focused on tricked-out competition sailboats like Camper and Playstation. But tomorrow, there's a good chance they'll apply to the object of your own obsession, as well.

Port Jefferson Yacht Club

PO Box 138

Port Jefferson, NY 11777

Bowspritz

Upcoming Events

Saturday, March 17th —St. Patrick's Day Party

Friday, April 6th– Game Night

Thursday, April 19th– Open House

Saturday, April 21st—Commodore's Cocktail Party