



MIDDLE HARBOUR YACHT CLUB
THE COMPASS ROSE CRUISING LOG

Volume No. 41 No. 9 October 2020

Editor: Mike McEvoy

NEXT MEETING: MONDAY OCTOBER 19TH 7:30 P.M.
B.Y.O. BBQ 6:30 P.M.

SPEAKERS: GLYNNE AND GILL ATTERSALL ON LIGHTNING
MARTYN COLEBROOK ON MOB



With thanks to Alex Comino

CRUISING DIVISION OFFICE BEARERS – 2020 - 2021

<i>Cruising Captain</i>	Evan Hodge	0419-247-500
Vice-Commodore Cruising	Evan Hodge	0419-247-500
Secretary	Kelly Nunn-Clark	0457-007-554
Treasurer	Mike McEvoy	9968-1777
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Safety Coordinator	Phil Darling	0411-882-760
Maritime Group	Mike McEvoy	9968-1777
Sailing Committee	Dallas O'Brien, Phil Darling	0404 892 077
Guest Speakers	Committee Members as required; Royce Engelhardt (winter months)	
On Water Events Coordinators	Phil Darling, Evan Hodge and CD members	Phil 0411-882-760
On Land Events Coordinators	Kelly Nunn-Clark	
Committee Members	Martyn Colebrook, Phil Darling, Dorothy Theeboom, Kelly Nunn-Clark, Evan Hodge, Mike McEvoy, Dallas O'Brien, Jeremy Clarke, Sanna Westling	



Editor's note:

Deadline for the next edition of the Compass Rose, is **30/10/2020**

The **EDITOR** for the next Compass Rose is **Dorothy Theeboom**

Please forward contributions via email to the editor
@ cruising@mhyc.com.au

Opinions expressed in the Compass Rose are those of the contributors, and do not necessarily reflect opinions of either Middle Harbour Yacht Club or the Cruising Division

MHYC CRUISING DIVISION ANNUAL PROGRAM 2020-2021

Monday, 19 October 2020	Cruising Division Meeting
Sat & Sun, 7-8 November 2020	Man-overboard and picnic ashore
Monday, 16 November 2020	Cruising Division Meeting and Flare Practice
Sunday, 22 November 2020	MHYC Sunday Breakfast and Safety Training Workshop
Date TBC	MHYC Xmas Party

NEXT MEETING: **MONDAY OCTOBER 19TH 7:30 P.M.**
 B.Y.O. BBQ 6:30 P.M.

Speakers: **Glynne & Gill Attersall** to lead a talk on “When a boat gets hit by lightning”. They have some great information and stories. Just from talking in our group many of you also have stories so it should be a good discussion

Martyn Colebrook to start a discussion about the various techniques for Man Overboard that we will then practice on the Saturday afternoon 7 November.

Changes to the Cheese Platter at Meetings

There were some concerns that we were breaching the Social Distancing norms at the August meeting when we all got together over the cheese platter at the end of the meeting.

So, the committee has decided not to have a communal cheese platter (at least until the COVID-19 pandemic is under control).

Such a shame!

But do feel free to bring your own instead.

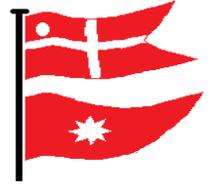
We look forward to seeing many individual, socially-distanced, platters or snacks!!!

CAPTAIN'S COLUMN – OCTOBER 2020



What wonderful weather for the October long weekend to kick off a new cruising season in Sydney.

Firstly, a big thanks to Alex Comino (Bloodhound) for his fire on-board talk at the last Cruising Division meeting. It certainly gave us food for thought and started many of us thinking how we need to react when fast action is called for.



Slowly the Covid restrictions are being lifted but we need to still be aware and considerate of those around us. If anyone has any symptoms and have not been tested, please do not attend any of our meeting or gatherings. The meetings will continue to be both on-site and available to attend on Zoom for this month. As the limit for attendees has been lifted to 40 there may be no need for the Zoom but we will host it for those still not venturing out.



The recent cruise to Pittwater was a blast with good sailing, great company, and a beautiful backdrop of locations to explore and admire. Find out more about the weekend you missed later in this edition of the Compass Rose.

The photo on the left is the moon setting over Morning Bay as the sun is rising behind us. The photo was taken from Sanctum with Bundeena to our right and Buggalugs further ahead.

For those of you who want a bit of midweek fun, the MHYC Twilight sailing starts this week (7/10/2020). A number of the cruising division members participate either on their own yachts or join as crew with others. Apart from having a great evening on the water you can hone your sailing skills and learn from others around you.

The next meeting will have two topics: What to do when lightning strikes and man overboard theory. Two great topics. As the Tapas Tie Up has been postponed till next year, we are going to use the November 7-8 weekend to have a practical man-over-board exercise followed by a picnic at one of the many harbour locations. More information will be provided closer to the date.

Till next month stay safe, enjoy the warmer sailing weather and keep cruising.

Evan Hodge
Cruising Captain. *SV Sanctum*



VIRTUAL AGM & CRUISING DIVISION COMMITTEE

As the Corona virus playing havoc with whether we can meet face-to-face and when we do meet, whether we are limited in numbers. It has created a dilemma for holding our annual general meeting (AGM). It was decided to hold an online/email Annual General Meeting.

As a result of the online/email AGM the Committee announced on 29 September for 2020-21 is:

Cruising Captain
Secretary
Treasurer
Committee Members

Evan Hodge
Kelly Nunn-Clark
Mike McEvoy
Jeremy Clarke
Martyn Colebrook
Phil Darling
Dallas O'Brien
Dorothy Theeboom
Sanna Westling

Welcome Sanna to the Committee and we look forward to your contributions.

PAST EVENTS

Pittwater for the long weekend by Dorothy Theeboom

Once again members of the Cruising Division set sail for Pittwater to spend the October long weekend or perhaps even longer. Jeremy and Kristen on Buggalugs were the trend setters leaving Sydney on Wednesday and picking up a mooring in Morning Bay in the late afternoon. Niclas, Sanna and Oliver on RaRa were next away, spending Thursday evening on a club mooring in America's Bay. Saturday saw Bundeena with Frank at the helm together with Nicole and Dot, Sanctum with Kelly, Evan and their trusty companion Max, and John Eastway on Flemingo all head north, meeting up with Buggalugs and RaRa in Morning Bay.



Sanctum and Buggalugs in Morning Bay

Bundeena's crew with the help of Jeremy put her dinghy into the water and Frank collected Valerie from the Hall's Beach wharf. Sundowners were aboard Bundeena before everyone departed for their own vessels by kayak or dinghy. RaRa set off for Port Stephens by the light of a full moon. Unfortunately for them, the conditions were a bit too daunting for a first night sail, so they returned to Morning Bay.

Sunday morning dawned a little later than normal as daylight saving came in overnight. This did not stop the early risers who watched a beautiful sunrise from various vantage spots. Whilst Flemingo set off for home, Jeremy and Kristen were seen paddling their blow-up kayak and Kelly and Max took the water on a paddle board.



Jeremy, Kelly and Max take to the water.



Of great interest were the electronic wave boards being ridden around the bay.

In the late morning we headed to Iron Ladder beach which is situated between Box and Little Box Heads. After lunch we all congregated on Sanctum. The hardy souls from Bundeena swam the short distance. Some were hampered by dry bags containing essentials such as

towels and, in my case, a box of biscuits. Some people took the opportunity to try out kayaking or paddle boarding. Unfortunately, there were several jet skis buzzing in and around the moored boats. This spoilt the ambience somewhat. Sanctum, Buggalugs and Bundeena motor-sailed back to Morning Bay. On the way Sanctum's crew were escorted by dolphins off Palm Beach.

Once back in Morning Bay food and drink was again the order of the day. Whilst we had been lolling about on Sanctum in the afternoon, Frank had gone back to Bundeena and prepared a gourmet feast of rice paper rolls and vegetarian sausage rolls (perhaps a tautology?).

After another peaceful night the Bundeena crew enjoyed a magnificent vegetarian breakfast whilst others tucked into bacon and eggs or whatever took their fancy. After dropping Valerie back at the ferry wharf it was decided to further explore the bay. At the far end is a mangrove swamp with beautiful sandy beaches.



As Evan is now in possession of a new waterproof leg, (they are now both waterproof. Ed.) he had his first two-legged swim in more than forty years. In the meantime RaRa was exploring the reaches of the Hawkesbury including Dangar Island. The prize for the most brave and adventurous exercise of the weekend must go to Sanna who was hauled up the mast to try and fix a non-functioning anchor light.

Finally, Buggalugs, Sanctum and Bundeena headed back to Middle Harbour. It seems that Buggalugs had the best of the wind and managed to sail all the way. Sanctum and Bundeena motored to Barranjoey before hoisting sail. Unfortunately the wind died down as we neared the Heads. However, in Bundeena's case we were hit by 25-30 knot winds as we rounded North Head necessitating a quick reefing of the main to the third reef, something that had not been done before. Thanks Frank for your excellent instruction. Finally back at Middle Harbour we tied up and went home to our beds or, in some cases to our bunks.

FUTURE EVENTS:

7-8 November - Man Overboard practice and picnic ashore

Register your interest at the next CD meeting. Sailing instructions will be issued just prior to the event.

MHYC Flare Practice on the Beach – November 16th Meeting

What better time to learn how these essential safety items work – much better than in the middle of the night during some disaster!

As usual we will notify all authorities and the plan is (weather and fire bans permitting) to hold the practice on the beach prior to the meeting.

The Cruising Division will be hosting flare practice on Monday evening November 16th. Commencing at 8:00 pm immediately after the Cruising Division meeting concludes. Bring your own flares and let them off on the beach in front of the Clubhouse.



Gloves, long sleeves/trousers and eye protection are recommended.

NO PARACHUTE ROCKETS ARE PERMITTED

these are a fire hazard to our neighbours.

We recommend in-date flares. If you must bring old (out-of-date) flares then you do so at your own risk – and please check them carefully for signs of damage or deterioration prior to igniting them. **Definitely no flares over 10 years of age.**

This exercise is highly recommended for all skippers and crew members who have never ignited a flare in an emergency. Flares are an essential (and required) safety feature on all boats and, if you really need them then best not to be fumbling around trying to read their instructions at the time (in the dark? can't find your glasses? Crew are panicking?) Learn how to use them safely and effectively in a controlled situation.

FIRE IN THE HOLE
or
What do you think you should do if a fire starts on your yacht and your God has abandoned you?

An edited version of a presentation by Alex Comino to the General Meeting of the Cruising Division on Monday 21 September 2020

Did you know that 90% of fires start in the engine room, usually due to faulty or corroded electrical wiring – it only takes one spark!

Did you know that fire expands at the rate of 100% every 60 seconds!

So what do these two important bits of information tell you?they tell me that I don't have much time to put out the fire, that is if I can, and if I can't, what other steps should I be taking whilst I'm trying to put out the fire?

I'm not going to talk about the types of fires as there are up to seven or more fire categories, it is sufficient for to confine my talk to fires categorised a, b and c as these are the fires for which we have fire-fighting equipment on our yachts, such as cO₂ fire extinguishers, fire blankets and water. Some of you might have taken the extra precaution and acquired additional fire-fighting or fire suppressing equipment and there are many automated fire suppressing D.I.Y. Systems that you can install for as little as \$200.00 upwards in your yacht. A smoke alarm may keep you safe at night when you are asleep, and it's simple to install.

So here we go:

Given that you literally have only a few seconds to make a decision as to whether you can or cannot put out or suppress the fire you should also take the necessary steps to abandon ship, just in case you can't put out the fire or the yacht blows up!..... And they do, without warning!

I THINK YOU MUST DO BOTH.

Both actions should be taken simultaneously by instructing your crew what to do, you, the skipper should remain in command at all times to coordinate matters, as well as steer the vessel. You can't do everything so delegate to trusted, experienced crew specific tasks, unless you're solo, then you're on your own to do what you can.

These are the steps I suggest that you implement immediately:

- STEP 1 Appoint one or more experienced crew member to locate the fire extinguishers and the source of the fire and try to put it out using the P.A.S.S. method – see below
- STEP 2 Appoint other experienced crew members to prepare to abandon ship by:
1. Sending out a mayday signal continuously
 2. Activate your EPIRB
 3. Issue life jackets to all and a water bottle if possible
 4. Prepare or find the grab-bag, ensure that it has a medical kit, flares, hand bearing compass etc
 5. Prepare the life raft for launching, and have life rings ready to be used
 6. Secure torches and knives and food for as many crew as possible.
- STEP 3 Appoint remaining crew members to fill buckets with sea-water as they might be able to assist in putting out the fire or douse flames on crew, clothing etc. REMEMBER water will not put out an electrical fire but will put out a methylated spirit stove fire. Unfortunately water will spread all other fuel based fires.
- STEP 4 Turn off your engine, continuing to run the engine may damage it. (You will need it later if you successfully put out the fire). Remember it may be the principle cause of the fire.
- STEP 5 SWITCH OFF ALL BATTERIES at the master switch. This will stop an electrical fire receiving further energy to keep it going, BUT WON'T PUT OUT THE FIRE. This is where water can be used.
- STEP 6 Turn off petrol or diesel fuel at the tank or anywhere else were there will be no leakage of fuel into the bilge.
- STEP 7 Turn off all gas bottles at the bottle.
- STEP 8 Any spare crew should be deployed to assist the trained crew to attack the fire from the forehead entry hatch or the cockpit (do not let crew to stay down below without an escape route, as the fumes might kill them).

Well, there you have it. These 8 steps have to be initiated and hopefully executed within 60 seconds, if you don't, chances are you will have to abandon ship.

If you have brought the fire under control, don't stop, keep at it until there is no heat, smoke or flames and look for damage to all areas and appliances. Fibreglass catches on fire at 260°C, that's not much heat. Now is the time to pour water on the damaged areas to ensure you have extinguished the fire.

Do not start the engine, this may have been the cause of the fire, besides to do so you will have to switch on the batteries and fuel, this could resurrect the fire again! Double check these items and be ready to switch them off if a fire breaks out.

If you can sail, then that is what you should be doing. REMEMBER, IF THE ENGINE WAS RUNNING WHEN FIRE WAS DETECTED SHUT IT DOWN UNTIL IT IS SAFE TO START IT.

The mayday signal should then be changed to "PAN" – or "SECURITE" depending on your circumstances. Take note of where you are.

So what have you discovered so far?

Firstly, you cannot put out the fire and carry out the 8 steps I have outlined without engaging the help of your crew. So FIRE DRILL PRACTICE with your permanent crew is a must. Visitors should be allocated simple tasks as they will be unfamiliar with the boat and its equipment. Permanent crew on the other hand should be familiar with the location of fire-fighting and life-saving equipment and how to use it.

Include in your stowage chart where fire extinguishers, life jackets and grab bag are located and ensure that your crew read and understand it. Also, show it to your visitors when they come on board. _____

I have had personal experience with fires on different yachts on three separate occasions. The first one was due to a petrol engine carburettor leak, caused by engine vibrations and the second one (different yacht – but nevertheless a petrol engine) when the spark arrestor failed, due to verdigris build up, and finally on a diesel powered boat when the electrical wiring shorted on a 24v system during gale force seas, which caused a fire to start near the battery box, setting the electrical loom of the boat on fire. On each occasion, I was able to act quickly, with the assistance of my crew and stop the fire..... Without major damage.

Remember CO₂ fire extinguishers have a limited amount of fuel suppressant and range. So use them properly, merely pointing the fire extinguisher at a fire will not put out the fire. Learn the P.A.S.S. Protocol and teach your crew. It's your best chance to put out a fire using a fire extinguisher.

Remember, fire blankets are excellent for putting out cooking fires and for use as a shield if you need to get to the seat of the fire, they may also be useful if you abandon ship. Carry as many extra ones as you can, they require no maintenance. Once used, discard them as they are not reusable.

Above all, remember the best way to put out a fire on a yacht is by “PREVENTION”. By that I mean that you have installed all the firefighting/suppression equipment you can deploy and have trained yourself and each of your crew how to use it.

You should store your aerosol cans such as WD40, fog horn, ether start, well away from the engine and cooking areas as they will explode once exposed to heat without warning. Same applies to spare fuel containers.

Also, make sure you are fully insured for everything, boat, crew and property. Fires are costly and fatal!

Lastly, I believe that the most important matter for you to consider, is to ensure that you have an in-line fuse in the positive cable between the battery and the main switch board. (I suggest a ceramic enclosed type). However, as you cannot have a fuse from the battery to the starter motor of your engine, it is essential that you are able to switch off all the batteries at the master or main switch, this is paramount.

The main or master switch should be located as close as possible to the companionway so that you don't have to go below to turn it off. Likewise, any fuel cock should be located similarly. I note that most fuel cocks are located near the fuel tank, which in many yachts may be difficult to reach in the panic of a fire IF AT ALL.

Always assume that your fire will occur during the night when making your plans to install or locate your firefighting equipment, EPIRBS torches, life jackets, life raft, water, you don't get a second chance, so choose their location wisely. Remember, your god has abandoned you.

THE PASS SYSTEM

P	=	PULL THE PIN
A	=	AIM AT THE BASE OF THE FIRE
S	=	SQUEEZE THE TRIGGER
S	=	SWEEP SIDE TO SIDE AIMING AT THE BASE OF THE FIRE

AUSTRALIA

COVID MESSAGE from the Ocean Cruising Club

Just in case you are planning any overseas trips in your boat, be warned

The OCC initially wrote to the Health and Border Force Ministers in April and again more recently has written to the Prime Minister. After receiving a letter in June advising of the exemption process available, the OCC conducted a pilot and all five boats were rejected.

The OCC has been supported by a Senator who has advocated at the highest possible levels for cruising yachts. Recently, one last attempt was made with the group exemption application, involving a letter to the Prime Minister and a groups of over 20 yachts. The Senator ensured this was again considered at the highest possible levels.

To date the only known exemption granted for a cruiser is a US crew member on an Australian owned/skippered yacht, apparently gained with Fiji High Commissioners' assistance.

Yesterday the OCC received the following from Australian Border Force:

“The Commissioner has considered the request and has decided the following:

- There is no impediment to the Australian citizen and permanent residents travelling to Australia.*
- The grounds for compelling/compassionate circumstances are not met.*
- The inability to get insurance is not on a basis on which to grant an exemption.*
- There is no information to support the proposition that any of the travellers or vessels regularly come to Australia.*
- The travellers may wish to consider other options in relation to the travel/cyclone season.*
- The travellers may wish to consider whether they may present as a significant economic activity for a State or Territory and seek their support.”*

Yachts may still apply for an exemption. For the latest information, advice and how to apply online, visit the Department of Home Affairs' website at: <https://covid19.homeaffairs.gov.au/coming-australia>.

The OCC has been working with Down Under Rally and Bundaberg Port Marina. COVID safe and quarantine protocols were developed and have been put into place. The OCC would particularly like to thank John Hembrow and Brett Hensler for their efforts towards the cruising community. We especially wish to thank our Senator (who remains eager to assist), hopefully we can do this publicly soon!

OCC CONCLUSION

There is little more that the OCC can do. With the impending cyclone season, crews should be considering the best possible location to sit out the season and have a cyclone refuge plan in the event one occurs.

While we have run out of time, crews with ongoing concerns can contact their embassy/consulate to seek their assistance.

*Guy Chester
Ocean Cruising Club*

CD QUIZ – OCTOBER 2020, BY PHIL DARLING



CD Quiz – October 2020 by Phil Darling

1. You are taking a three point fix underway with a hand bearing compass. Should you take the bearing on the beam first or last? Why?
2. Again a three point fix underway with a hand bearing compass. Which bearings should you be most exact with – those close or those distant?
3. You are sailing off Sydney. Visibility is good, the barometer is rising, the wind has backed to the south west and the temperature has fallen. What weather feature has most likely just passed?
4. On the Australian coast does a sea breeze normally back or veer during the day?
5. You have a riding turn on a winch and want to take the load off the line. What knot should you use?
6. What type of navigation marker has the light characteristic Fl(2+1)G?
7. What colours and what top mark will the marker in the previous question show?
8. According to the Coll. Regs., when is a vessel “deemed to be overtaking”?
9. What is meant by the term “in irons”?
10. In a motor cruiser in a following sea – do you adjust the trim tabs up or down?

FEATURE ARTICLE

Work From Boat with high speed Wi-Fi on Hunky Dory

By Cam Wayland

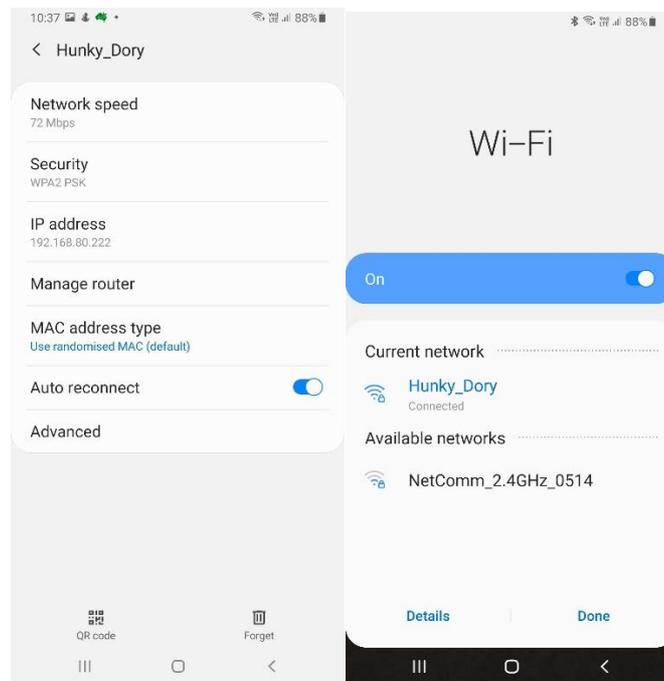
Recently Hunky Dory had to become my “real” office and my Work From Boat (WFB) place not due to COVID, but because of unplanned house remediation that made it too difficult for us to live in a construction site. This is an article about how we have installed a Wi-Fi router to provide the necessary internet connection to be able to work and of course access entertainment reliably and safely from Hunky Dory.

About a year ago when the mast was out for a re-rig I purchased a Glomex WebBoat 4G Plus which is a dual SIM 4G router contained in a small dome and then mounted on the first spreader. All it needs is 12V power and of course a SIM with a suitable data only plan. While the device had been physically mounted, it was only recently that I had a marine electrician permanently run a separate circuit to the switch panel so as not to be drawing power when not needed, which is tip number 1.



So why did I choose to install WebBoat and not just hot spot using an existing mobile device? Three reasons, firstly it is a dedicated system that is always ready to go. Secondly security, you can connect up to 32 devices to your own private encrypted Wi-Fi network, and finally better internet connectivity from a purpose built antenna system half way up the mast, either 4G or re-broadcasting of a public Wi-Fi such as marina guest internet access.

My work requires online meetings and more recently training or client workshops courses that I used to run physically but now I conduct virtually using Zoom. This setup was recently put to the test when we were at RMYC escaping the building mess where I had to run a half day Zoom workshop for a client, which I was comfortably able to achieve.



If you are considering WFB (potentially pretending to be elsewhere) a solid internet connection is the essential foundation. The second thing is to have a good camera and microphone setup that provides more flexibility and better video performance than most standard laptop cameras and microphones. There is nothing more annoying when you are viewing the ceiling or looking up their nose when the person on the other end has moved the angle of their screen!

So, tip 2 for WFB is to use a dedicated webcam/mic setup on a tripod to provide the ideal viewing angle. I use a Logitech HD Pro which has a standard screw tripod mount. Not expensive, less than \$200 for the lot. The difference in the video presented lighting, especially in a low light situation (such as a nav table in the afternoon) compared to the built in camera is significant.



Back to WebBoat. We found we were able to stream TV/entertainment OK, either directly to a laptop or to the TV via a Google Chromecast which is connected to the Hunky Dory Wi-Fi network without any issues, so in reality a “connected boat” is now quite possible. As for data usage it depends what you are doing of course. I have a Telstra business mobile account with a couple of devices on it (including the SIM up the mast) and the data allowance is shared between all devices, so I have more than enough data capacity for work and streaming.

I have heard of alternatives to WebBoat from local marine suppliers which may be similar, but at the time of purchase the reviews and availability led me to purchasing it from Amazon.com as the device is made in Italy, primarily for the Med, hence the dual SIM feature. Looking online today it is about USD 750.

Tip 3 is before leaping into something permanent like WebBoat work out how much internet time and capacity you need to see if this type of investment is needed. There are plenty of short term low cost alternatives such as battery powered 4G hotspots from Telstra or Optus you can put in a bag and haul up the mast. Remembering there are still plenty of places even around the Hawkesbury that are out of range of 4G coverage. If internet access is critical for whatever reason then satellite is your only option. However, we did manage a connection once by hauling a hotspot or a phone up the mast as far off the coast as Lady Musgrave and just managed to get an intermittent signal for weather updates.



For us having the WebBoat installed has given us the opportunity to work part time from just about anywhere we would be likely to go coastal cruising. This summer we are looking forward to being able to finally do more mid-week overnights when the Harbour or Pittwater is less crowded. If I have to do a Zoom call I just have to make sure I am not dripping wet after a swim that might give away I am not in my home office, but WFB!

If you want the Technical Specifications, please contact Cam

Almost Adrift - by Mike McEvoy

Recently I came back to my mooring on Sisu, having collected her from the boatshed after her annual beauty treatment. I was doing a couple of odd jobs when I happened to look astern during a moderate wind gust. I noticed a newish looking boat behind me on a fore and aft mooring veering considerably in the breeze. Something didn't look right so I continued to observe it through the cycle of gusts.

Its mooring buoy, which was tied to the bow rail, was rolling up and down as the boat pulled back on the mooring. Then I twigged to the problem, the forward mooring line was not attached to the boat. Given the line connecting the fore and aft mooring lines via the buoy was rather thin, I thought it could be an issue if a nor'easter hit the bay.

I rowed over to the boat and then realised that there was not enough length available to hook the mooring line onto its cleat. Hmm, what to do, perhaps climb on board and adjust the connecting line or what? In the end I tried to contact our local BSO but, of course got voicemail, which meant he wasn't on duty on the water. So I left a message at 14:50 hours with a photo (taken from Sisu, see below) explaining the situation at. In my message, I identified myself, my boat and my Mooring No.



At 17:41 hours I received a message from the BSO saying that he had called the owner who went straight down to fix it. The owner hadn't left the mooring like that and figured that someone had been on board after he left the boat. He wanted to pass on a big thank you (to me).

I'm sure the owner of this very new Riviera must have been very concerned to think that his new toy could be in danger, whereas I was thinking also of the damage to other boats if it got loose. There is another boat moored directly behind the Riviera and the last remaining houseboat is just off to the port side of the Riv.

Lesson from the story: It pays to have the local BSO's mobile phone number, for local issues. I have had that number in my phone for about 15 years and had to use it about 5 times, mainly to assist others.



Tech Corner

REPLACING A LEAD-ACID HOUSE (SHIP) BATTERY WITH A LITHIUM BATTERY

By Frank Banks

Part 1 of 2

For a few years I have wanted to move from the world of aqueous lead-acid batteries to the dry (almost) and lighter lithium world in the final thrust to finish Banksia Man, but it has only been in the last 3 or 4 years that the technology and the local assemblers have settled on a format of construction that has provided a virtual drop in replacement for your average 12volt lead-acid battery ; with one proviso – it is a deep cycle battery and at the moment with very few exceptions, not a cranking battery. I'll explain that particular aspect in part two. So, half the weight, twice the useable amp hours, can be charged with a standard lead-acid charger or alternator system, all for little more than the price of a top line AGM lead acid battery. Can it be true? This is the adventure in space to where no man has been before! Oops wrong movie.....

First some basic technical information that is important because it can govern how you treat them and hence ensure their great benefit of longevity (2000 full cycles). Out of various manufacturing copyright wars most of the world has settled on LiFePO₄ as the more robust (safety and charging abuse) lithium compound in the form of round cells like torch batteries and prismatic cells (the industry's strange word for rectangular!) They have a nominal (another strange word) voltage of 3.2 volts, are arranged (in parallel) in four packs, then the packs connected in series to give the nominal figure of 12.8 volts. In a lead acid battery there are six cells of 2.1v in series that self-balance because current passes through them irrespective of state of charge. A lithium cell or paralleled pack of cells, has a low opposing potential (wrongly referred to as 'resistance') so charges rapidly in comparison to an LA equivalent, 'fills up', then blocks further current. So the string of 4 packs need the addition of a BMS (Battery Management System) to equalise their charge. This BMS in the form of a little black box sits invisibly inside the battery case along with a controller. The cells can be safely overcharged to 4.2v but in general the BMS limits that to 3.75v (15v at the battery terminals). More tech stuff relating to charging next time.

The example used here is the standard 100Ah or 120Ah replacement for a 100Ah LA battery. The difficult bit for me was that the physical size of the replacement was about 1" longer than the original and a fraction wider, so I had to modify the battery tray to fit in the same space. For what it's worth the photos show the modification.



The tray is timber and glass so it was decided one of the ends had to be removed.



And completely routed out like this



The end then remade with a thin (3mm) but strong plate of epoxy and glass formed up on a broken piece of window pane, then glassed into the body of the tray.



The tray then finished off, gel coated and remounted into its original position under a bunk seat. Incidentally the four threaded rods hold a timber clamp to the top of the battery. The change-over switch allows for two different types of batteries to be used within the bank if one was ever so ldaft or so disposed.

Selection criteria for a lithium battery are as difficult as they can be for a lead acid battery because unlike a domestic appliance like a vacuum cleaner although they all do the same thing i.e. in the latter case, suck, with batteries they do remarkably, almost exactly, the same thing as one another. When it came to lithium I saw differences in the maximum current they could deliver as a direct indicator of the BMS's (or the controller's) ability to handle a high current. The standard 100/120 Ah ones vary between 50 and 150 amps continuous. The difference between 50 amps and 150 amps, apart from being a general indicator, could be the difference between being able or unable to operate an anchor windlass. Yes, I know production boat instructions say you must have your engine running in order to operate your windlass; call it old fashioned seamanship, but I can't see much sense in a boat stuck at anchor because the engine can't be started. Ooh, I wandered off course.

So, maximum continuous current is one, another (for me) given advised safety/longevity issues of undercharge and overcharge, is automatic cut-off if nearly depleted or too high a charging voltage is encountered. In addition, I preferred as much Australian content in the 'black boxes' as possible. In the case of the iTech120 they state their controller is made by Redback, a reputable Australian manufacturer of solar panel control systems, also iTechworld is an Australian company. That's my choice and personal decision tree but I can't say that it categorically makes it the best. There are others I'm sure that will do precisely the same job. Another consideration of course is price. At the moment the well-known overseas brands are still \$1900 or so, whereas the locally assembled ones are a thousand or more, less.

In my case, the battery has to be able to be charged with either a standard mains charger, solar panels or alternator (with smart regulator). Each of these have lead acid profiled regulators. Did I need to buy a special lithium profiled regulator or charger? Did I need a DC to DC charger? All were advised but by whom?

Next month, what I discovered and actually did.

PHOTO COMPETITION for 2020

October WinnerPhoto of the Month is Simon Pratt

Send your photos to **Maralyn Miller** to enter into the 2020 Cruising Division Photo Competition. Each Month the best photo received will be published and in the running to win a new **Mystery Prize** at the end of 2020.



The winning photo for October is called "looking west at Hell's Gate; the entrance to Macquarie Harbour, on an unusually placid day" and was taken by Simon Pratt.

Send your best photos (as a JPG / JPEG) - Remember ... to be in the running to win the prize you must be in it.

Hint Give your favourite photo a Title and Place taken. Submit your photos to Darling.maralyn@ozemail.com.au.

Good Shooting ...!! Maralyn.

CALAMITY CORNER

On the October Long Weekend, after an overnight in Sugarloaf Bay we decided to go for a tour down the main harbour to inspect what is happening at Garden Island. We can, just, see the main Navy wharf at the Island from our front verandah and have observed marine works going on for some months.

As we were rounding Bradleys Head in boisterous conditions we were overtaken by the Water Police vessel doing about 10 knots. The WP boat's bow wave and wake was high, compared to Sisu and we didn't have the transom gate closed. So, the cockpit was pooped and about a foot of water rushed in over the boarding platform.

No damage was done and the water did not get into the cabin. Fortunately, last year when I had the scuppers removed an automatic bilge pump was installed with a float switch under the cockpit and it took care of the water in about 8 minutes. Tragedy averted!

Needless to say we have a new rule on board, transom gate closed when under way.

By the way, the whole of the Navy wharf at Garden Island has been extended out into the harbour and made a continuous single frontage, suitable maybe for cruise ships?

(((((((((((((((((((v))))))))))))))))))))

Caution users of large electric winches. Sanctum.



Winches do not see what is going on with the lines so it is imperative that one keeps their eyes on the winch as well as what the sheet is attached to.

This is what happens when you try using a winch that is not correctly placed for the job at hand. Usually this outhaul would be around the winch you can see in the background on the cabin top. Because our main halyard clutch was slipping, we

had to leave the main halyard around the winch.

When it came time to set the mainsail (on an in-mast furled sail) I used one of the primary winches for the outhaul. Not watching the winch and concentrating on the mainsail resulted in this mess that took a lot of effort and dismantling the winch top to fix. Not to mention the need to replace a plastic guide in the self-tailing mechanism which had been distorted due to heat.

CD QUIZ – OCTOBER 2020 – ANSWERS BY PHIL DARLING

1. The bearing on the beam changes quickest so you should take it last and note the time – this is the time for the fix.
2. You should be most exact with the distant bearings as a minor error in bearing here will have most effect on your position.
3. Cold front.
4. Back. For example – off Sydney it begins as an easterly then backs to the north east as the day progresses.
5. A rolling hitch.
6. Preferred channel to starboard.
7. It will be painted green/red/green and have a green cone on top.
8. “When coming up to another vessel from a direction more than 22.5 degrees abaft her beam”.
9. A sailing vessel is “in irons” when it is stationary head to wind and unable to pay off on either tack.
10. Up – to keep the bow from burying in the waves.

BUY, SWAP and SELL

Sorry, no stock this month

TOOLS AVAILABLE TO CRUISING DIVISION MEMBERS FOR LOAN

The Cruising Division along with a few members have tools available that we are willing to loan to others members if the need arises. Presently we have the following available for loan.

BOLT CUTTER & SWAGING TOOL – Custodian is Paul Wotherspoon, Mike McEvoy also has these available if needed.

SEXTANT – Custodian is Evan Hodge

If you happen to have tools available that you are willing to loan short term please let us know at cruising@mhyc.com.au and we will put this into the Compass Rose next month.

CHEF'S CORNER.....BY JEREMY CLARKE

Grilled Tuna with a white bean Puree

Ingredients

600grams Tuna or swordfish fillets

Serves 4

Olive oil

Juice 1 lemon

1 lemon quartered

White bean Puree

Ingredients

2X400 Gram cannellini Beans rinsed and drained

1 teaspoon crushed garlic

60ml lemon juice

Olive oil

1 tablespoon chopped dill

1 tablespoon chopped parsley

2 tablespoons baby capers rinsed

Preparation

Combine the cannellini beans garlic and lemon juice in a food processor

With it running, pour in enough olive oil to make a puree

Remove to an ovenproof dish and stir through the dill, parsley and baby capers

Cover and keep warm in a 180 c oven for 15 mins

Brush the fish with the combined olive oil and lemon juice, bbq the fish until cooked to your liking

Serve place generous spoonful of white bean puree onto the serving plate top it with the bbq'd fish serve with lemon quarters for squeezing over the fish and with the green salad with olive

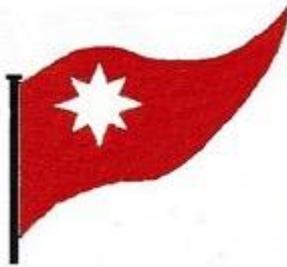
Or as a DIP 185g canned tuna in oil add the beans to the food processor copy as above but no need to heat serve on rice crackers for a good snack

You will need an inverter (240) for the stick blender

**Middle Harbour Yacht Club - Cruising Division
Treasurer's Report As at 1 October 2020**

Cash at Bank as at 01.09.2020	\$2,137.26
 <i>Plus Receipts</i>	
Membership	\$0.00
Interest 30 September 2020	\$0.18
 <i>Less Payments</i>	
	\$
Cash at Bank as at 30.09.2020	\$2,137.44
 <i>Outstanding Receipts</i>	 \$0.00
 <i>Outstanding Payments</i>	 \$0.00
 Account Balance	 \$2,137.44
 Signed as a true record Mike McEvoy Treasurer	

A CLUMBUNGAY IS A BOAT OLD IN DESIGN AND BUILD BUT USUALLY WELL LOVED AND CARED FOR.



MEMBERS ARE INVITED TO SUBMIT ARTICLES OF APPROXIMATELY 800 - 900 WORDS ON SUBJECTS WITH A SAILING THEME, INCLUDING PERSONAL SAILING ADVENTURES, BOOK REVIEWS, SKETCHES, JOKES, AND SO ON. WRITE YOUR ARTICLE WITH TITLE, YOUR NAME AND BOAT NAME, AND EMAIL TO THE EDITOR.

The Cruising Division of MHYC meets on the 3rd Monday of each month and uses as its sailing pennant a flag with a white compass rose on a red background.

MHYC Cruising Division members invite a raft-up or cruise in company whenever they fly our pennant, which we refer to as 'the compass rose'.

The Cruising Division newsletter is titled 'The Compass Rose Cruising Log' and is published monthly. The newsletter is also available through the MHYC web-site at

<https://mhyc.com.au/sailing/cruising/compass-rose-publication>