



SAF Station Meeting Minutes for 7 June 2023

By Chuck Hawley, Secretary

The June 7 meeting was held at the lovely Santa Cruz Yacht Club, and a remarkable 45 members and guests attended. This venue was suggested by the Rear Commodore at the January meeting, and based on the show of hands, SCYC was put on the schedule despite its location waaaay to the south. SCYC members Beau and Stacy Vrolyk, Skip Allan, Tom Condry and Sylvia Seaburg, Bill and Lu Lee, and Chuck and Susan Hawley welcomed the San Francisco Station members to the lovely, historic club.



While most members presumed this was a normal monthly luncheon, it was actually a celebration of Dolores Robinson's birthday!

THOSE IN ATTENDANCE:

Zia Ahari, Skip Allan, Diane Barker, Don Bekins, Jim Coggin, Tom Condry and Sylvia Seaberg, Peter English, Doug Finley, David Fullagar, Neil Gibbs, Bob Hanelt, Chuck and Susan Hawley, Stan and Sally Honey, Terry Klaus, Bill and Lu Lee with guests Malcolm and Mary Park, Mary Lovely and Jim Quanci, Steve Mason with "berth neighbor" Mike Mellon, Joan McCune, Alex Mehran with guest Nick Halmos, Michael Moradzadeh with guest Liz Croft, Christopher Parkman, Robbie and Dolores Robinson, Moe Roddy and Don Wieneke, Richard Schaper with guest John Caleti, Beau and Stacey Vrolyk with guests Matthew Coale, Rob Franks and Tom Lewin .

Note: The Secretary apologizes for the poor quality of the photographs appearing this month, but as our Station Photographer was not present, and the Secretary did not have the presence of mind to take pictures at opportune moments, this month's photographs are decidedly not up to normal standards.

REAR COMMODORE'S REPORT

After welcoming everyone to the yacht club, and thanking them for undertaking the drive to Santa Cruz, R/C Richard Schaper mentioned that the GAM had been mailed recently, and it included several stories about what's going on with the San Francisco Station members, including a lengthy article on Wednesday's speaker, Alex Mehran. Also mentioned was a story on the new Hank Eason buoy, named for the esteemed CCA member Hank Eason who passed this February. There were also several profiles of new station members, including Peter English, Neil Gibbs, Jonathan 'Bird' Livingston, Ronnie Simpson, and Aaron Wangenheim. On a percentage basis, this represents 21% of the total new members approved in February, which is a testament to the energy in our station.



Skip Allan chats with John Caleti.



Terry Klaus and Bill Lee in a deep conversation.

Richard also celebrated that SAF Program Chair Mary Crowley was featured in the GAM for having won the Diana Russell Award at the annual meeting.

Richard then introduced Chuck Hawley who gave a remarkably short history of the club, before introducing The Wizard, a.k.a. Bill Lee, who gave an overview of the boatbuilding companies that flourished for about two decades in Santa Cruz, Soquel and Watsonville. Bill was famous for emphasizing absolute speed over how a boat rated under

various rating rules, and built such legendary speedsters as Magic, Panache and Chutzpah in the early 1970s. In fact, Bill crewed on Panache with 15 year old Malcolm Park in 1973. Panache was owned and skippered by legendary Bay Area sailor and Cal Berkeley's Executive Vice-Chancellor and Provost, Rod Park. Bill mentioned that his boats were not only fast, but also durable, as 12 of them were entered in this year's Transpac.

MEMBERSHIP

Moe Roddy mentioned that the applications of several new members are progressing, and comments are now being accepted for several prospective members. As members of the station, you'll receive emails with a link if you wish to comment.

SAFETY AT SEA

After a lengthy discussion of the proper way to transmit a Digital Selective Calling (DSC) distress alert among CCA members via email, the Safety Officer thought that it would make a splendid Safety Moment since he realized that it may have been the first time, ever, that he understood the intricacies of how the Rescue 21 system operates, and how mariners need to be adept and keeping their radios installations ready to interact with the system. A lengthy, yet remarkably pithy Safety Moment is attached to this month's minutes.



Past Rear Commodore Jim Quanci chats with guest Malcolm Park, who sailed his first Transpac at the age of 15.



Access to a \$1B emergency radio network is as close as the "red button" on your radio.

CRUISING NEWS

Several members who participated in the Benicia Cruise said that it was a complete success and thanked Bill Mittendorf and Bill Edinger for planning the cruise.

TREASURER'S REPORT

While Synthia was not present, she reported that the station had a big influx of money related to the annual dues (as it should be.)

FEATURED SPEAKER

Wednesday's featured speaker was SAF member Alex Mehran who gave a terrific presentation about how he became interested in offshore racing, mostly in shorthanded races, including the Route du Rhum in 2022 when he finished 14th out of 137 competitors. In a sport

where the professional French sailors dominate, Alex's performance was remarkable. His boat, *Polka Dot*, is a Class 40, one of the most competitive offshore classes for shorthanded sailing. Rather than summarize his terrific talk, please refer to the GAM and read his article. I would insert a link to the online version here, but it's not online as of today. You should have received it by now by US Mail. It will eventually be found at <https://cruisingclub.org/mo/gam>.

CONCLUSION

It was generally agreed that this was a terrific meeting, and that we should consider Santa Cruz Yacht Club for our annual June Luncheon in future years.



Perpetually friendly Don Bekins made the drive to Santa Cruz and said it was "no big deal."



What Happens When you Press the DISTRESS Button?

“Safety Moments, presented at CCA Stations and Posts”

By Chuck Hawley, San Francisco Station, June 2023

In Safety at Sea courses around the country, as well as Safety for Cruising Couples and Practice on Your Own Boat, students are reminded of the effectiveness of using the Digital Selective Calling (DSC) feature built-into their VHF Radios, especially for emergency communications. However, there’s a modest amount of confusion about the best way to operate the vessel’s radio using the DISTRESS button, and why it operates the way it does.



Stock photograph of a person's finger pressing a DISTRESS button on a generic radio.

First, by way of review:

Digital Selective Calling allows marine VHF radios to communicate digitally, without a human voice, with other vessels or stations on land. Digital messages are brief, unlikely to be misunderstood, and can be sent automatically with up-to-date information. While there are many uses for these digital broadcasts, the primary reason that most cruisers would want a DSC-capable radio (and the rest of its installation) is for sending a distress alert to the Coast Guard or other vessels. So, while there are other uses, this article will focus primarily on the safety and rescue application of DSC.

The relatively new network of antennas, radio hardware, and the network that connects them is known as Rescue 21. It replaces a roughly 40 year old system called the National Distress Response System (NDRS), which had a number of shortcomings:

1. It could only operate on a single VHF channel at a time.
2. There were gaps in the coverage of the network so calls might be missed.
3. It was not possible to determine the bearing to the transmitting station.
4. It was not compatible with Digital Selective Calling.

So, at a cost of over \$1B, the Rescue 21¹ network was rolled out to the continental US, much of Alaska, Guam, Puerto Rico, some of the Western Rivers, and the US portion of the Great Lakes. This allows the Coast Guard to monitor distress calls from mariners who are using a VHF radio transmitting at one watt, with an antenna 2 meters above the water, at a distance of 21 miles. Boats with higher antennas extend the range dramatically.

While DSC doesn't require the vessel to be within range of the Coast Guard's Rescue 21 network, the two technologies are designed to work together for the benefit of coastal vessels. That's because a Digital Selective Calling distress call contains really valuable information:

1. The fact that the vessel is actually in distress, and (optionally) the nature of the distress. One popular brand of VHF radio supports the following distress types:
 - a. Undesignated, Fire-Explosion, Flooding, Collision, Grounding, Capsizing, Sinking, Adrift, Abandoning Ship, Piracy, Man Overboard.²
2. The MMSI number of the vessel, presuming it's been programmed into the radio.³
3. The position of the vessel, providing that the radio is connected to an operational GPS, or has an internal GPS.

Alas, many DSC-capable VHF installations lack either a programmed MMSI number or a GPS connection which then fails to take advantage of the Rescue 21 network's benefits. Other issues include:

1. Having dated or missing information associated with your MMSI registration.
2. Having the previous owner's MMSI number programmed into your new boat.
3. Having a poorly installed VHF radio antenna with too much loss in the antenna lead-in cable.
4. Having an antenna location that isn't at the highest available location on your boat.⁴

OK, so presuming you've avoided these pitfalls, what actually happens when you press the DISTRESS button? According to a long chain of emails between CCA members Stan Honey and Ashley Perrin, this is what your radio does after you press the DISTRESS button for 5 seconds:

¹ The name derives from the notion that it would take the "Search" out of "Search and Rescue."

² However, after reviewing the instructions for some VHF models regarding how to select the nature of the distress, vessels might have sunk or burned to the waterline by the time the operator entered the proper keystrokes. Perhaps sending a generic distress call first, with the option of adding the nature of the distress later, would be good advice. And many of these distress calls will result in voice communications with the rescuing party where details can be added.

³ VHF radios are designed to accept an MMSI number once or twice, but once entered, it cannot be changed at will. This is to reduce "spoofing" or changing the MMSI number to avoid being tracked by authorities.

⁴ The importance of placing your VHF antenna as high as possible is hard to overstate. If your antenna is below the line-of-sight to the receiving antenna, more gain or more transmitter power has very little benefit. With line-of-sight, a small transmitter with a less-than-optimal antenna can reach more than several hundred miles, as evidenced by the ability of satellites to receive signals from 2 watt AIS transceivers.

1. It monitors for signals on VHF Channel 70 and waits for a clear time. To radio engineers this is called CSMA (carrier sense multiple access). This normally takes very little time as Channel 70 is lightly used.
2. Once it finds a clear time the radio transmits the DSC distress signal packet. This takes 3.8 seconds and during this time the radio will generally be beeping. The distress signal broadcast packet is redundant and contains two copies of every bit that are 1/30 of a second apart, so this message is very robust (unlikely to be misunderstood by the receiving station.)
3. Then the radio re-transmits the same message four additional times, at an interval of about every 4 minutes.

Once the distress alert sequence has begun, it will cause an alarm to sound on the radios within range of the call, alerting not only the Coast Guard, but other vessels who may be in a position to come to your aid. The alarm will sound until it is acknowledged by the receiving vessel.

One of the reasons for this lengthy email thread was to determine when it's "safe" to switch to Channel 16 and to broadcast a Mayday (or Pan-Pan) call using voice. The agreed-upon solution is to wait 15 seconds after the press of the DISTRESS button to ensure that your voice transmission doesn't interfere with the digital transmission.

A voice Mayday should contain the following information:

MAYDAY, MAYDAY, MAYDAY (or PAN-PAN three times if not life-threatening)

This is the vessel Mama's Mink, Mama's Mink, Mama's Mink.

The MMSI number of the vessel (so that receiving stations can link the digital transmission to the voice transmission.)

MAYDAY Mama's Mink MMSI 329876542

Our position is three seven degrees one four point six two minutes north, one two zero degrees zero five point seven seven minutes west.

We've been dismasted and have several injured crew members on board, as well as a crewmember who's fallen overboard.

We request medical assistance and help in locating our crewman.

There are nine souls aboard.

We have a life raft, an EPIRB, and an SOS light on board.

MAYDAY, MAYDAY, MAYDAY, this is the vessel Mama's Mink standing by Channel 16.

Since emergencies tend to reduce our abilities to think clearly, a template for a Mayday call is a good thing to post near the navigation station. In addition, brief instructions for broadcasting a DSC Distress call should also be posted since it may have been the navigator or skipper who's fallen overboard in our example.

The transmission of a DSC Distress call isn't a one-time event. As mentioned above, the radio will continue to transmit the message four times, until it's acknowledged by another vessel or the Coast Guard. This allows other vessels to "turn off" the distress alarm transmitted by your both for all boats within the range of your transmission.

What happens if, despite your certainty that you were in grave danger, you discover that you have transmitted either a DSC or a voice Mayday transmission prematurely and now you need to cancel the call. VHF radios will allow you to cancel the repetitive transmissions of the distress call if you need to, and you can transmit a voice call to all stations on Channel 16 indicating that the Mayday is canceled along with all identifying information about your vessel (call sign, if you have one, MMSI number, vessel name, position.) What you cannot do, once a Mayday is declared, is to slink away and pretend that you didn't do it.

Digital Selective Calling, when used within reach of the Coast Guard's Rescue 21 network, provides the information needed by the Coast Guard to come to your aid. Installed correctly, relatively inexpensive VHF radios are one of the most cost-effective safety products for coastal cruisers. Take the time to make sure your GPS is properly connected, and that your MMSI is properly entered into the radio. It could be a matter of life or death.

The Cruising Club of America is a collection of accomplished ocean sailors having extensive boat handling, seamanship, and command experience honed over many years. "Safety Moments" are written by the Club's Safety Officers from CCA Stations across North America and Bermuda, as well as CCA members at large. They are published by the CCA Safety and Seamanship Committee and are intended to advance seamanship and safety by highlighting new technologies, suggestions for safe operation and reports of maritime disasters around the world.