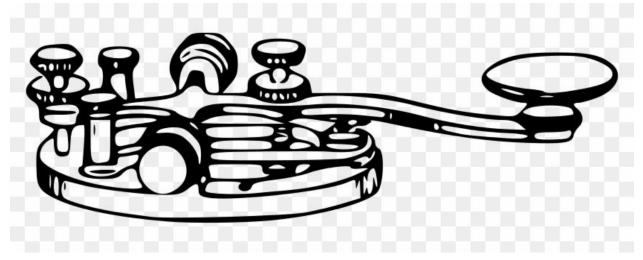


# QSA-5

## Marin Amateur Radio Society Monthly Newsletter

**Established 1933** 

November 2022



When all else fails, you can count on Amateur Radio

## From Our President:

All of a sudden, its winter. I live in a small condominium building in Emeryville. Last night when I got home from work, I ran into the woman who lives across the hall from me. I said to her that it looks like winter is coming. She replied no its here. Thinking back on the eyeball QSO, we were both wearing sweaters over our business attire, and it was dark outside. I am forced to admit she was right. This morning the radio reported chain requirements on the way to Tahoe. I guess that is irrefutable evidence. I dumped the last of the Halloween candy on the table in the lunchroom at work and I guess it is time to invest in eggnog and dump the rest of the pumpkin spice in that with some brandy to round out the flavor.

As the year closes, we tend to focus on family, home, and hearth. These are our bulwarks against the coming of the night. We also have business to attend to. We will be electing new board members and will have largest change in board membership in some time. It is also the season of club awards. If you have suggestions for club awards, please let me know. To review the awards that we can give out check out <a href="http://w6sg.net/site/members/club-awards/">http://w6sg.net/site/members/club-awards/</a> It served to remind me that I need to post the 2021 winners. I will miss the annual Christmas dinner which seems to be the most lasting casualty of covid for club activities. There are a few of us who show up in person for our first Friday meetings at the club house and I will be there. I look forward to seeing you all either in person or on zoom. This month I will spare you from a long screed and end here.

73 de wa6uds

## From the Editor:

Happy November everyone! You'll notice that the QSA-5 has been greatly reduced in size. All the older articles have been removed so we can start with a

clean slate. After talking with club members, in person and via email, I have a fairly good idea regarding what readers want to see. While this issue will be bare bones, future issues will contain that material you suggested.

Taking on the role of editor and being a new member of the club put me at a slight disadvantage because I didn't have a working knowledge of the club member's interests. I have sometimes thought of myself as being an Amish Horse and Buggy salesman suddenly having to sell automobiles. However, I think I have at least a rough idea of what you want within the pages of the QSA-5 and will make every effort to give readers what they want.

In the spirit of keeping this short, please feel free to send any suggestions regarding our publication to me and I'll make sure they are included within it's pages.



#### QSA-5Editor@w6sg.net

#### **New Members:**

Andy Briggs KF6ZSF – Novato Doug Kaye KN6WBZ - Kentfield

## **General Meeting Minutes**



Marin Amateur Radio Society General Membership Meeting 7 October 2022

#### Call to Order 19:30 Hours (7:30 PM)

Meeting called to order at 19:38 by Skip Fedanzo KJ6ARL, since Curtis had made some error with his audio connection

#### Adopt Agenda

Agenda adopted without objection

#### **Board Actions**

<u>Ask about Christmas Celebration</u> – Some discussion about why but no specific request to hold dinner. Curtis requested people email him if interested

<u>Ensuring access to Club House on Sunday mornings</u> – We have instituted a signup sheet for people to open the club house. Milt Hyams reminded board members to sign up.

#### **New Members**

John Vlahos K7JGV – Castro Valley Geoff Peters AB6BT – Novato Kyle Schien KN6SKP – San Rafael

#### Fun with Ham Radio

Jan Leja WB6SPX and Marc Bruvry KF6VNT posed a question or puzzle about the design of and a problem with a Heathkit linear amp that had landed on Jan's workbench. A lively discussion ensued. Other topics were also raised.

#### **Treasurer's Report**

The Treasurer's Report was included in QSA5 there were no specific questions posed about the report however a question was raised about Bruce Bartel N6VLB resting on a bed covered with club funds.

#### **Committee and other Reports:**

- 1. Membership 149 96%
- 2. **Public Service** Pam N6PDW and Stan AI6NF reported a very successful season so far with only a couple of events to go. It was also reported that a new event may be added in November pending board approval.
- 3. Facilities Skip KJ6ARL reported that we are looking for a landscaper to clear built up leaves and weeds that present a fire danger. Suggestions were offered.
- 4. Repeaters Milt KM6ASI reported that the management company for the Mt Tam sites had changed and locked us and the county out of the sites. It appears that the key locks have been replaced with combination locks and Rob NZ6J will verify that the new combination works.
- 5. **VE** Ken AB6JR reported that a VE session is scheduled for Saturday 8 October with 5 people scheduled to take exams.
- 6. VOAD/RCV Skip KJ6ARL reported that VOAD/RCV will be participating in a three-day earthquake exercise centering around The Great California Shakeout scheduled to begin on 10/20/22 at 10:20 am. Of particular interest will be starting up an ad hoc net without a designated net control and the transition to a structured net and ICS deployment.
- 7. **NBAM** No report

#### **Old Business**

No old business

#### **New Business**

- Confirm Marc Bruvry KF6VNT W6SG and club station manager M/S/A Marc is confirmed as trustee for W6SG and club station manager
- **2.** Board of Directors Slate
  - a. Steve Toquinto KB6HOH
  - b. James Saltzgaber KM6WWY
  - c. Dan Sobel N6HLZ

Good of the Order Adjourn Adjourned at 8:41 pm

Next General Meeting: November 4th, 2022



## "Your parents hath given you a name. And the FCC hath given you another..."

## Marin Amateur Radio Society Board of Directors Meeting 13 October 2022

Attendance: President: Curtis Ardourel WA6UDS (1) Director: Skip Fedanzo KJ6ARL (2) Vice President: Tom Jordan KG6TCM (2) Director: Ken Brownfield AB6JR (2) Director: Mark Klein KM6AOW (1) Secretary/Trustee: K6GWE Brian Cooley KB6EZX (1) Treasurer/Trustee: W6SG: Bruce Bartel N6VLB (1)

Call to Order: 19:30 Hours (7:30 PM)

Adopt agenda: Agenda adopted without objection

Approve minutes: of 8 September meeting

**Secretary's Report/Communications:** Brian K6EZX reported that he met with Jim Aspinwall N01PC of NARCC and is brokering communication between him and Milt KM6ASI about some interference concerns that Aspinwall has brought up with Big Rock UHF which, while not a MARS machine, is connected to some MARS members and could affect the overall NARCC tenor of dealing with us. Aspinwall also asked why the club uses two call signs (not that W6SG is even of concern to NARCC). We need to get a formal note from Rich Slusher to QRZ to change the

listed trustee for K6GWE from Doug's name as that is what NARCC relies on, not FCC records. Curtis is aware of the need for this letter and will coordinate with Rich.

Treasurer's Report: Bruce N6VLB confirms that the latest budget is in QSA-5

#### **Committee and other Reports:**

- 1. Membership: 149 | 97% Curtis reported that the member password hasn't been changed yet to lock out expired members, but he has pruned the email list of anyone who is not current.
- 2. Facilities: Skip KJ6ARL reported that fire extinguishers were just professionally serviced. He's meeting with Mark Bruvy this Sunday to label the shack equipment. Landscape maintenance is pending with Arturo, but he's been hard to book. Tom KG6TCM expressed concern about some invasive bamboo that we should talk to our neighbor about; It was planted on their side, and it is invasive. But if we don't get support from them in eradicating it, we should just do it ourselves. Rob NZ6J reports that the neighbor has been cooperative in the past. Skip and or Rob will knock on the neighbor's door to inquire while we continue to try to get Arturo (our past gardener) to reply and take on the job. Meanwhile, Tom KG6TCM volunteered to do a stop gap weed whack this weekend.
- **3.** Public Service: Rob NZ6J brought up a new late season event that is proposed to our support: Spartan Golden Gate Trail Classic this November 19-20. Curtis WA6UDS mentioned that we are circumspect about events that are for-profit as this one is, but we can do it under Part 97 as long as we don't have a quid pro quo financial involvement which we would not get involved in. A discussion occurred about the nature of the for-profit org we'd be supporting. Milt KM6ASI says the decision should turn on whether our services will create income for the organizer or would we garner income. As the entrants in this event are the actual public that we would be providing safety services and are not making money by taking part, even if the organizing group is for profit, we should be in a safe harbor under Part 97 language. It was moved that we support the event as we do with other P.S. events that are also sometimes operated by for-profit organizations. M/S/A, with Tom KG6TCM abstaining.
- **4. Technical:** Milt KM6ASI reported that we have achieved access to the sites at Tam and Tam West where we were locked out of the gates as of last meeting.

The lead radio tech for the county is due back in town soon to install Fire Station 9 UHF repeater gear, as has long been planned. Skip KJ6ARL asked Brian K6EZX to check up with Jim Aspinwall about the status of our coordination which seems to be hung up on a power change, but that might be confused with 147.330 which is still unstable, .700 is not. There is a challenge against .330 from a Morgan Hill Group, separately, should not be holding up out .700 coordination. Brian will follow up with Skip on Big Rock UHF, a separate issue.

- 5. VOAD/RCV: Skip KJ6ARL reported that one member dropped out due to family issues, but there are two prospective new members in the pipeline. RCV's <u>Great Shakeout</u> exercise will cover 3 separate days, coordinated with RACES/ACS: This will be RCV's first multi-day exercise.
- 6. VE Testing: Ken AB6JR reported 5 attendees in the last VE session, all passed, including one getting their Extra and one person who had a 37 years expired license get their General ticket.
- **7. NBAM:** Rob NZ6J reported that NBAM has a mesh island at Sea Ranch, priming the pump for full mesh connection all the way up the coast to there. Rob also showed the latest map of active sites.

#### **Old Business:**

- **1.** Drainage/Fire Protection: Covered in Facilities above.
- 2. Transfer from Doug: In process
  - 1. Laptops
  - 2. Thumb drives, including one that may be the config software and files for K6GWE network. Curtis will distribute copies of those files to Rob and Milt. Brian will set up a drive folder for sharing of the files.
- **3.** Field Day Settling up with REDXA in process.
- 4. Website password update: Pending, this weekend.
- **5.** General meeting approved <u>Marc Bruvry KF6VNT</u> as new trustee for W6SG, as was discussed in the last Board Meeting. Bruce Bartel N6VLB will review and certify for the record.

#### **New Business:**

- **1.** <u>Invoice for Picnic</u> \$1175 + tip \$235 was M/S/A with show of hands.
- 2. Quickbooks Pro: Cost has gone up by \$5 to \$55 for Bruce's information when he makes his monthly reimbursement to Curtis who carries the cost

on his card. Cutis mentioned that an ACH should be set up for this as his position as President will be changing soon.

- **3.** Battery backup for entry system: Will be purchased, Facilities team was deputized to spec and report back only if it will be of unusual expense.
- **4.** Board candidates
  - 1. Steve Toquinto KB6HOH
  - 2. James Saltzgaber KM6WWY
  - 3. Dan Sobel N6HLZ
- 5. Spartan Golden Gate Classic (covered above).

**Good of the Order:** Skip KJ6ARL will send Brian a copy of the Tam UHF coordination document for the club Drive.

Executive Session: N/A Adjourn: 20:55

B. Cooley

#### Next Regular Meeting 4 November 2022 Next Board Meeting 10 November 2022

#### ADDENDA

Proposal for MARS to add a new event to our public service program: Spartan golden gate trail classic November 19-20

The event comprises 4 courses in the hills of Marin over two days. The longest 100km course runs into the evening, so it will be different from our usual MO. 250 runners are registered. The larger Sunday events run in the morning only. There are 600 runners registered.

We've been asked to support this event given their previous difficulty of communicating using public services like cellular and satellite phones.

Spartan is a for-profit organization with global activities. We've discussed the legality of supporting them, and as long as there is no payment for our services, it's apparently only a matter for this board, not the FCC, to approve. We already support commercial events such as the Miwok 100 and double Dipsea.

As co-convenor of our MARS public service program I'm enthusiastic to support this event. It's yet another chance for our members to exercise their skills, be prepared for emergencies and showcase ham radio.

While late in our season, I believe if approved, we can stand up a cohort of operators to support the event in just those locations known to be cellular challenged. I've put together a draft assignment sheet for the 11 aid stations of which only 3 or 4 will need MARS operators.

https://docs.google.com/document/d/1sNB4pNAkApTunun7J9M6dUGeXCtPHFa7 UVMenPwFSE0/edit

If we receive approval I will proceed with recruiting operators. Of course I will seek insurance coverage as usual.

73, Rob, NZ6J 415 849 5667

## Marin Amateur Radio Club Balance Sheet Comparison As of October 31, 2022

AS OF OCT 31, 2022, AS OF OCT 31, 2021 (PY)

#### ASSETS

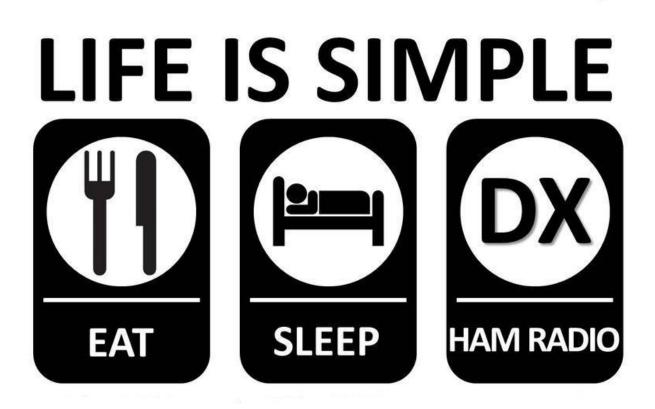
Current Assets		
Bank Accounts		
B of A Building account - 8795	6,587.46	2,346.63
B of A General account - 4328	9,590.89	18,274.69
CD	25,000.00	25,000.00
Money Market	5,000.00	5,000.00
Total Bank Accounts	\$46,143.35	\$50,621.32
Other Current Assets		
Uncategorized Asset	-35.00	

<b>Total Other Current Assets</b> <b>Total Current Assets</b> Fixed Assets	\$ -35.00 \$44,057.09	\$0.00 \$43,328.10
Clubhouse - 27 Shell Rd. MV	58,983.00	58,983.00
Total Fixed Assets	\$58,983.00	\$58,983.00
TOTAL ASSETS	\$105,126.35	\$109,604.32
LIABILITIES AND EQUITY		
Liabilities		
Total Liabilities		
Equity		
Opening Balance Net Assets	124,400.00	124,400.00
Retained Earnings	-16,461.90	-21,928.89
Net Income	-2,811.75	7,133.21
Total Equity	\$103,040.09	\$102,311.10
TOTAL LIABILITIES AND EQUITY	\$103,040.09	\$102,311.10

## Marin Amateur Radio Club Profit and Loss January - October 2022

	TOTAL		
JAL	I - OCT 2022	JAN - OCT 2021 (PY YTD)	
Income			
Auction Income	60.00		
Donations	130.01	262.03	
Dues	6,305.00	6,676.47	
Field day refund	1,375.00		
Income from club activities	90.00	828.00	
Public Service Refund	450.00	475.00	
Rent	26,400.00	25,025.00	
Sales of Product Income	24.69	20.32	
Unapplied Cash Pay Income	250.00		

Total Income GROSS PROFIT	\$35,084.70 \$35,084.70	\$33,286.82 \$33,286.82
Expenses		
Accounting	55.00	
Awards		300.00
Car & Truck	54.49	1,313.94
Equipment < \$2,500		322.79
Field day	2,184.67	
Food	850.00	1,536.00
Garbage	430.56	332.08
Insurance	7,125.00	6,450.00
Legal & Professional Services	575.00	25.00
Meals	3,788.00	
Public Service Expense	841.09	
Reimbursable Expenses	5,435.72	3,674.95
Rent & Lease		150.00
Repair & Maintenance	1,362.50	2,281.66
Repairs & Maintenance	2,880.00	895.18
Repeater		-3,764.68
Taxes & Licenses	7,930.84	4,550.56
Telephone	94.47	93.24
Uncategorized Expense	275.00	1,127.50
Utilities	3,066.52	5,960.17
VE Session	275.00	188.00
Water	672.59	629.85
Total Expenses	\$37,896.45	\$26,153.61
NET OPERATING INCOME	\$ -2,811.75	\$7,133.21
NET INCOME	\$ -2,811.75	\$7,133.21



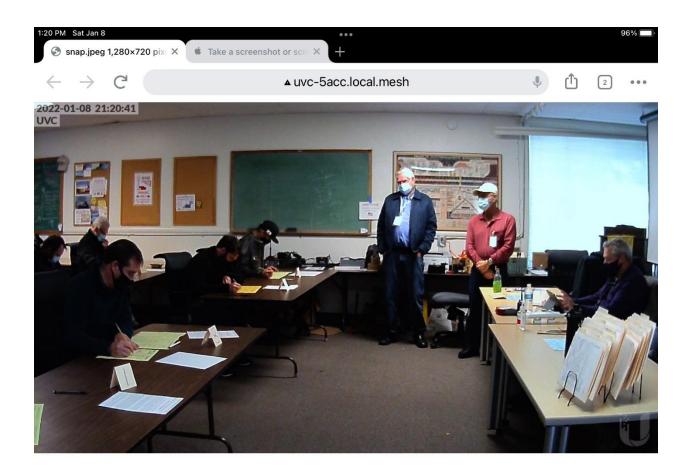
## **Marin Amateur Radio Society News**

## **VE News**

To keep our passion alive, we need younger generations of people to join the ranks of amateur radio operators. Any interest can only be kept alive by bringing in new blood, younger members willing to keep that interest going into the future. Amateur radio clubs around the country partake in the Volunteer Examiner's program, providing examinations for those new to ham radio or those upgrading their existing license. The VE program keeps amateur radio alive by giving license examinations and then sending the paperwork of successful examinees to the FCC where a Callsign is issued.

To become a Volunteer Examiner, you must read the VE manual and take a test. That's exactly what I did. My reasons for doing so were simple: I took all three license tests during the Covid-19 Pandemic. There were no physical testing sites available, so I had to sit for my exams online. The Lake Washington Radio Club did online testing, so I signed up. Online testing, due to the stringent testing requirements of the FCC was daunting at best for the Washington based radio club. However, they did it. I had several issues with my computer while testing and the club patiently worked with me to ensure I made it through the exam. This inspired me to say "thank you" by becoming a VE. Of course, radio clubs are now opened to in-person testing and the Marin Amateur Radio Society is one of those clubs that offers testing opportunities to both new hams and hams upgrading their licenses. With that said, please consider joining the VE program. You can find further information at the ARRL website:

https://www.arrl.org/volunteer-examiners



The Marin Amateur Radio Society did four testing sessions during 2022 (one was a last-minute testing opportunity brought about due to the change in the question pool). Once again, Ken and his team did a great job. Here are the results of the last testing session of the year, held on October 8<sup>th</sup>, 2022:

Good Morning all,

First of all, I want to thank the participating Volunteers Examiners for their professionalism and dedication to the team and to MARS. Jerry WA6BXV, Mel AB6QM, Mark KM6AOW, Hugh KN6KNB, David WD6L, and Jim KM6WWY the Asst. Lead. I (we) thank JoAnne Saltzgaber KN6FXH for being our Clerk for the exam sessions. As the saying goes, there is no I in team.

I have waited until today to pass along the results. I was hoping everyone would have received their license by now. Two have not completed the process with the FCC yet.

We had 5 people register for the exam. We had 100% attendance and 100% passed their exams. The attendees were from The Sea Ranch, Kentfield, San Francisco and 2 from Santa Rosa.

Paul Sharpe KN6UFP from The Sea Ranch was granted his Amateur Extra Class license on 10-11-22. Paul had tested for his General license with us at our last exam session.

Doug Kaye from Kentfield passed the Technician exam. The fact that he had held an Advanced license many years ago, the FCC granted him a General License callsign KN6WBZ on 10-12-22.

Harold Wallin from Santa Rosa passed the Technician exam and was granted callsign KN6WCI on 10-12-22.

The second person from Santa Rosa passed the Technician exam and has not yet been issued a license.

The person from San Francisco passed the Technician exam and has not yet been issued a license.

I will contact the remaining two individuals prior to the 10 day time line expiration to check their status.

Ken Brownfield AB6JR Lead Volunteer Examiner Marin Amateur Radio Society

#### The Great Shakeout

The Bay Area recently had a 5.1 magnitude earthquake, reminding us that the big one is coming. When that big one comes is the question we can't answer. When we are hit with a large magnitude earthquake, there will be no notice. Because we live in an earthquake zone, our emergency responders and volunteer groups participate in exercises meant to prepare them for a no notice disaster. This information comes from Skip Fedanzo KJ6ARL:

From October 20th to the 22nd of this year, our own RCV and RACES held joint exercises to see how well Marin radio operators could standup a preactivation, pre-EOC resource net. That resource net is the foundation used for an amateur radio response when the EOC decides it is time to activate RACES and/or RCV. Here's breakdown of the event:

The Great Shakeout is an annual earthquake preparedness event each year, nominally on or around the third Thursday on October 1. It is intended to raise awareness of the threat of earthquakes and educate the general population of appropriate actions to take when a major earthquake comes: "drop, cover and hold on." The event is used by a number of institutions and response agencies as an opportunity to exercise their own preparedness in response to a catastrophic earthquake.

Marin County's ACS-RACES and RCV programs asked their operators, as well as other amateurs in the county, to participate in an exercise that simulates what might actually take place on local area repeaters and simplex frequencies during the initial hours of a major earthquake. Specifically, both ACS-RACES and RCV leadership have developed protocols for such a "nonotice" event. This exercise is intended to be a training opportunity for our operators, as well as a test of the adequacy, strengths, and limitations of these newly drafted protocols. Although the exercise began on Thursday morning October 20, organizers realized that not all operators would be free to participate on a weekday. Therefore, they conducted limited activities on Thursday and Friday, with a more complete simulation on Saturday. In an actual event, the Marin Operational Area Emergency Operations Center (OA EOC) would activate quickly but could have limited staffing and knowledge of the extent of damage and response needs for a number of hours.

ACS-RACES operators would NOT be activated during these initial hours, and no operators would deploy to other locations. At some point in time the EOC staff would formally activate ACS-RACES, and their initial request would include a report of the number, location and availability of operators who could be deployed.

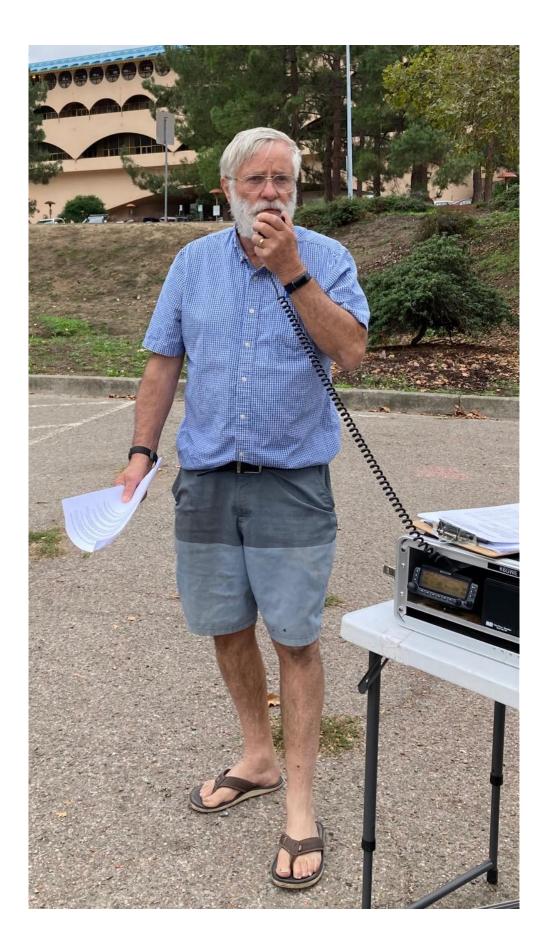
The ACS-RACES "no-notice protocol" is intended to develop that information prior to activation to support decisions on operator deployment when activation occurs. Similarly, RCV operators will build an RCV Operators resource net as soon as is practical in the hours following a major earthquake. Because RCV is not officially activated during this time activity is limited to creating its own resource log. That information might be compiled by monitoring a shared ACS-RACES/RCV repeater or on a separate repeater. Circumstances will determine which option is appropriate. Once an RCV resource log is available it will be forwarded to the OA EOC/VOAD position for further action.

It is virtually certain that a number of operators not affiliated with either ACS-RACES or RCV will come up on various repeaters. A key component of this exercise is to establish a "resource net" (i.e., a net intended to identify amateur operator resources for potential deployment). Simultaneously, situational awareness information in the form of reported infrastructure damage (roads, water, power, telecom), fires and injuries can be developed for relay to the EOC as the opportunity presents. Unaffiliated operators would be welcome to provide such information, subject to the net control station being able to complete the task of identifying operator availability. Although ACS-RACES does have a standing Memorandum of Understanding (MOU) with the Marin Amateur Radio Society (MARS) granting it priority access to MARS repeaters in emergencies, it should not be necessary to limit access to a specific repeater or repeater system prior to formal activation by the EOC. RCV Operators Please Note: For purposes of this exercise both RACES and RCV are considered "branches" of Marin's Auxiliary Communication Service (ACS). This means that on Day 1 and Day 3 of RCV's activities, the morning net is a general ACS pre-activation radio net. On Day 2 and the afternoon of Day 3 RCV will have its own net and Net Control Station.

#### **Monthly Critical Mass Event Photographs**

The Marin Amateur Radio Society held there monthly Critical Mass event and here are some photos of the action. If you're new to radio and don't know what Critical Mass is, there's an article after the photographs that will explain it.









#### How Critical Mass Started

The QSA-5 often reports on critical mass events in the Bay Area. While the QSA-5 has provided the "what is" regarding critical mass, we had not given you the "how" of the story, as in how critical mass started. Thanks to Michael Fischer, who forwarded this piece, you can now learn about the founding of this crucial service.

#### First written by AA6SF - SK - April 24, 2012)

Way back in early 2010, I was sitting at home looking at my HT radio that hadn't needed charging in some time. Since I got my license in January 2009 (Technician & call sign KI6NYQ), I had taken all the HCT (Ham Communication Team) classes offered by SF NERT and many emcomm classes offered by Santa Clara County ARES/RACES, even participated in their drills, volunteered as a radio operator for Bay to Breakers, SF Marathon, SF Nike Marathon, joined SF ACS; but I still did not feel like I knew that much about my radio and emergency communications and needed more radio practice opportunities.

I came to the realization that here in San Francisco there were few opportunities to learn more about my radio, simple UHF/VHF radio communications and few opportunities to practice using my dual band HT.

I decided to start a radio practice group. I thought I would gather together other ham radio operators to learn and practice with them and help them to learn and practice— about simple UHF/VHF radio communications. For weeks I scouted many venues in San Francisco and chose Spreckels Lake in Golden Gate Park. I announced the radio practice at the end of weekly ham nets, handed out announcements at an ACS meeting and an SFARC meeting.

Two of my best friends, Jan WB6SPX and Jim KI6RYE, said they would help and we three met over a nice bottle of red wine at Jim's house to work out (loosely) the details of the first practice. (Better than a garage in Los Altos.) I told them I had a name for the radio practice: "The 2 Meter Critical Mass Amateur Radio Practice". **On July 10, 2010, the first 2 Meter Critical Mass Amateur Radio Practice took place from 1000 hours to 1200 hours at Spreckels Lake in Golden Gate Park.** Twenty (20) hams were in attendance. Imagine that!

We talked on our radios. Some had trouble with Tone, Tone Frequency, offsets, phonetics, low battery power. There were lots of questions and the Elmers answered them.

I learned a lot that day. Exactly what I had wanted. Since then, when we meet, we continue to talk on our radios, solve problems and learn new things about our radios. I have learned something every time we met. Only once a month. Only two hours from 1000 to 1200 hours on a Saturday. Where else can you go in the city to learn about ham radio and help others learn? If you know of another place for radio practice, please tell me.

## Thank you Peter McElmury AA6SF-SK for developing this for our community. We look forward to carrying on your tradition.



## Ham Radio News

Each month, QSA-5 searches the internet for stories about amateur radio in the news. As editor of our publication, I merely present these articles and do not take a position regarding their message or content. Our first story regards Amateur Radio operators assisting law enforcement:

Amateur Radio Club Members Assist Law Enforcement: A local radio club provided surveillance for a large state fair.

http://www.arrl.org/news/amateur-radio-club-members-assist-law-enforcement

If China declares war, these ham radio enthusiasts could be crucial: An interesting piece from the Los Angeles Times:

https://www.latimes.com/world-nation/story/2022-10-27/taiwan-ham-radioamateurs-civil-defense

Amateur Radio Operators Continue Response to Hurricane Ian: One of the most important aspects of amateur radio is assisting when disaster strikes. Here's a piece from the ARRL about the role amateur radio has played during this devastating event.

http://www.arrl.org/news/amateur-radio-operators-continue-response-to-ian

**Local ham radio operators providing help as Hurricane Ian sweeps across Florida:** This comes from TV Station WTVA (TUPELO, Mississippi). This piece covers how amateur radio operators connect family members with loved ones in the path of the hurricane.

https://www.wtva.com/news/local-ham-radio-operators-providing-help-ashurricane-ian-sweeps-across-florida/article\_f2fda4e8-3f6c-11ed-bd5f-97a1bad70dad.html Ham radio operators: A long-lasting technology: A nice blog piece on the longevity of amateur radio.

https://www.winknews.com/2022/06/24/ham-radio-operators-a-long-lastingtechnology/

Ham radio operators practice for emergency: This comes from the Times online and is a decent article.

https://www.tnonline.com/20220627/ham-radio-operators-practice-foremergency/

**GE Ham News:** This is a great site I found by accident. It was published by General Electric to help sell their vacuum tubes. As an electronics nerd, I am fascinated by these downloadable PDF issues. The dates of publication range from 1938 to 1968.

https://worldradiohistory.com/GE Ham News.htm

## FCC Regulatory News

Here are the current regulatory changes and FCC news as it applies to Amateur Radio. This section of the QSA-5 newsletter was introduced last year. We will add new regulations and rules monthly, removing the older regulations and rules as new regulations/rules are introduced. As of the August 2021 issue of the QSA-5 newsletter, this list of FCC regulations and changes will be reduced, only covering this year's new regulations and rules. The newest regulations and changes will appear at the top of the list. Note that we are not able to cover every change the FCC has made this year within our publication:

FCC Grants an ARRL Emergency Request to Permit Higher Data Rate Transmissions for Hurricane Relief Communications: The FCC has granted a 60-day ARRL emergency request intended to facilitate amateur radio emergency communications for hurricane relief.

http://www.arrl.org/news/fcc-grants-an-arrl-emergency-request-to-permithigher-data-rate-transmissions-for-hurricane-relief-c

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**FCC Hiring for High Frequency Direction Finding Center:** Just in case you're looking for a career change:

http://www.arrl.org/news/fcc-hiring-for-high-frequency-direction-finding-center

**FCC Legacy CORES System to be Retired:** It seems that the FCC is retiring their CORES system:

https://www.arrl.org/news/fcc-legacy-cores-system-to-be-retired

FCC Proposes Record \$34,000 Fine for Alleged Interference and Unauthorized Transmissions During Idaho Wildfire: The FCC takes using unauthorized frequencies very seriously.

http://www.arrl.org/news/fcc-proposes-record-34-000-fine-for-allegedinterference-and-unauthorized-transmissions-during-idaho

FCC Has Resolved Technical Issues and Resumes Processing Amateur Radio License Applications: It's been a rough month for the FCC and their ability to process license applications:

https://www.arrl.org/news/fcc-has-resolved-technical-issues-and-resumesprocessing-amateur-radio-license-applications

## **Propagation News**

Here are some links dedicated to propagation conditions, space weather, sunspot cycle information and all things related to solar conditions:

**The K7RA Solar Update:** This is the K7RA solar update, which is updated regularly:

http://www.arrl.org/news/the-k7ra-solar-update-752

#### **DX.QSI** Propagation:

A simple, straightforward website for propagation conditions that is regularly updated:

https://dx.qsl.net/propagation/

#### Radio Society of Great Britain: What's New and Propagation Now:

A great resource from the UK version of the ARRL regarding solar activity and propagation:

https://rsgb.org/main/technical/propagation/whats-new-propagation-now/

#### SunSpotWatch.com:

A good general interest site for amateur radio operators who follow solar activity:

http://sunspotwatch.com/



**DIY Radio References** 

We have added a few additional links to our list and will continue to do so as we discover more websites related to the Do-It-Yourself movement! QSA-5 is going to keep adding to the original list of online resources, bringing you more resources as we find them. If there is anything you think would be useful to other club members, contact me and I will be happy to include it in this reference section.

**Microcontrollers and Single Board Computers**: With the advent of the Arduino micro-controller board, the Raspberry Pi (a single board minicomputer) and Texas Instrument's Launchpad (also a single board microcontroller), Amateur Radio enthusiasts can build both accessories, such as antenna tuners, and fully functioning transceivers. I have spent the last year at the University of California studying these devices, learning how to use them and incorporate them into electronic projects. I was able to build two HF receivers based on the Arduino and Raspberry Pi devices. The best news of all is that these devices are inexpensive! I encourage you to check these websites out!

**Arduino:** The Arduino microcontroller board was the first to popularize these devices. They are inexpensive and can be used for a variety of radio related projects.

I will include some links to radio related Arduino projects in the next issue of the QSA-5. Here's a link to the Arduino homepage:

#### https://www.arduino.cc/

**Raspberry Pi:** Did you every wish you could have a PC small enough to fit into your shirt pocket? Your dream has come true. The Raspberry Pi 4 is a fully functional Quadcore 1.6 GHz computer, about the size of a package of playing cards. It has an Ethernet jack, two USB 2 ports, two USB 3 ports and two HDMI ports. Next month, I'll post some links to radio related Raspberry Pi projects. Here's a link to their homepage.

https://www.raspberrypi.org/

**Texas Instruments TI Launchpad:** The Launchpad is Texas Instruments answer to the Arduino. The Launchpad is geared more towards advanced projects and is slightly more expensive. However, the Arduino still holds it own against this device. The Arduino also has more in the way of opensource software. Here is a link to the TI Launchpad homepage.

https://www.ti.com/design-resources/embedded-development/hardware-kitsboards.html

**Tools for electronics:** It is a lot easier to build or repair your electronics if you have the right tool. Paperclips and duct tape are not the solution to everything (unless you are McGyver – hopefully, you got the reference). Therefore, we added some links to suppliers of electronics tools.

**All Electronics:** A one stop electronics shop that has a variety of tools for your repair and building needs:

https://www.allelectronics.com/category/780/tools-and-supplies/1.html

Jameco Electronics: A supplier of decent tools at a reasonable price:

#### https://www.jameco.com/Jameco/content/tools.html

**Electronic Printed Circuit Boards (PCB):** If you design and build projects that require specific circuit boards, you know how difficult it is to find a board that will work for your purposes. Designing a board and then having it made can be expensive. Here is a company that has a large number of radio PCBs you can purchase and then add components to. They also can take your design and fabricate a PCB at a very reasonable cost. The company's name is **PCBway**:

#### https://www.pcbway.com/project/

**Electronic Components and Parts:** Many of us involved in amateur radio are constantly tinkering with electronics. It seems to be part of our genetic makeup! Here are some links to companies that sell electronic components and parts, starting with San Rafael's own Electronics Plus (Support local business).

**Electronics Plus:** It's great to have an electronics store close by for those times when you need a part immediately:

#### https://www.electronicplus.com/

**Digikey:** A good source for DIY and Maker projects as well as parts. They claim to have the world's largest selection of electronic components.

https://www.digikey.com/

**Jameco:** This company is a good source for almost everything, especially mainstay items such as resistors, capacitors, etc.

https://www.jameco.com/

**Homemade Antennas:** Many new amateur radio enthusiasts put a great deal of time and effort into researching their first radio. However, they often neglect the

most important component to a successful radio experience, the antenna. Even if you have some ham radio experience, antennas can be a daunting subject. Commercially manufactured antennas can be expensive and beyond your budget during these hard financial times. Even if you have the funds available to purchase an antenna, reading through the antenna's specs can be akin to reading some long lost ancient language. A good solution for increasing your knowledge of antennas and radio wave propagation, not to mention cutting the costs down, is to build them yourself. Here are some links to DIY (do it yourself) sites to give you a start:

Antenna building basics:

https://www.wikihow.com/Build-Several-Easy-Antennas-for-Amateur-Radio

Good Reference for several antenna types:

https://www.hamradiosecrets.com/homemade-ham-radio-antennas.html

A step-by-step guide for building a simple antenna:

https://geardiary.com/2012/07/21/building-a-simple-ham-radio-antenna-withoutsoldering/

Instructions for a VHF/UHF dual band antenna:

https://www.instructables.com/Quarter-Wave-Dual-Band-VHFUHF-Ham-Radio-Antenna/

Build an HF dipole antenna:

https://www.electronics-notes.com/articles/antennas-propagation/dipoleantenna/hf-ham-band-dipole-construction-80-40-20-15-10-meters.php

Introduction to antennas:

https://www.onallbands.com/ham-radio-antenna-options-for-home-and-portable-operations/

Ham Radio QRP Transceiver Kits: With the advent of SDR (Software Defined Radio), building fully functioning ham radios has become a lot easier and extremely inexpensive. While, having fewer bells and whistles, as well as being low power units, many have fully functional touchscreens and cover many of the HF bands:

An easy to build QRP transceiver. No soldering needed to build:

https://www.hfsignals.com/

An easy to build, single band CW kit:

https://qrp-labs.com/

Offering several kits and finished transceivers:

https://youkits.com/

**Propagation Websites:** Propagation is a key factor in successful radio communications. Here are some links to websites that will help you with all your basic propagation needs:

Real time band conditions:

https://qrznow.com/real-time-band-conditions/

VOACAP band conditions:

https://www.voacap.com/hf/ ARRL Propagation Page:

http://www.arrl.org/propagation

Real Time HF Propagation Prediction:

https://hamwaves.com/propagation/en/index.html

#### Ham Radio Websites of general interest:

Ham Radio News: Here are some sites and articles you may find of interest regarding ham radio.

ARRL News Page, which is a good place to find national news regarding ham radio:

http://www.arrl.org/news

QRZ Now. Another good site for ham radio news from around the globe:

https://qrznow.com/

The Amateur Radio Newsline. An AP styled news feel page for amateur radio:

https://www.arnewsline.org/