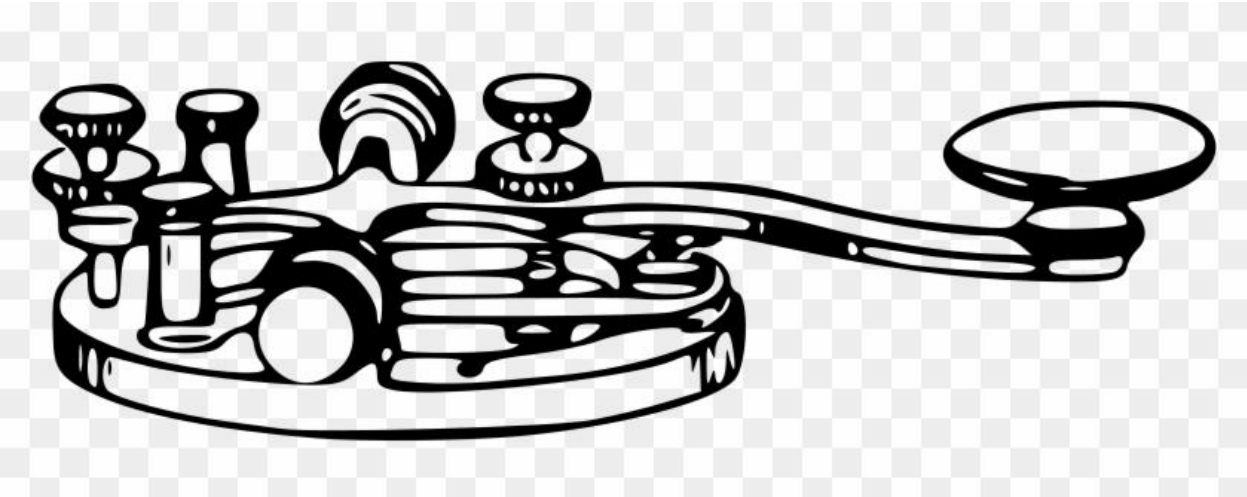
QSA-5

Marin Amateur Radio Society Monthly Newsletter

Established 1933 **September 2023**



When all else fails, you can count on Amateur Radio

From Our President:

Labor Day weekend is upon us. Here is to a safe and healthy weekend. The Clubhouse backroom cleanup was a success and I wish to thank everyone that came to help. Thank you to Jerry Foster WA6BXV, Skip Fedanzo KJ6ARL, Dan Sobel N6HLZ, Jerry Back K6JB, Charles Benet AI6TT, Doug Kaye K6DRK, Greg Dupree KU1C, Hugh Patterson KN6KNB, Larry Bradley KK6QPE, Kris Backentose N5HIT, Andrew Musselman KI6UOC, and I apologize if I missed anyone.

The Club Picnic will be at Stafford Lake on Oct 7. There will be more information given at the Membership meeting on Sept 1st. Remember to email RSVP@w6sg.net to let us know if you are attending and if you are bringing anyone. Let us also know if you are bringing your own food to cook or prefer a catered option. It is hard to resist a steak or hamburger and hot dog cooked on a BBQ grille that you cook yourself or have someone cook for you. Have a great day everyone!

Ken Brownfield AB6JR

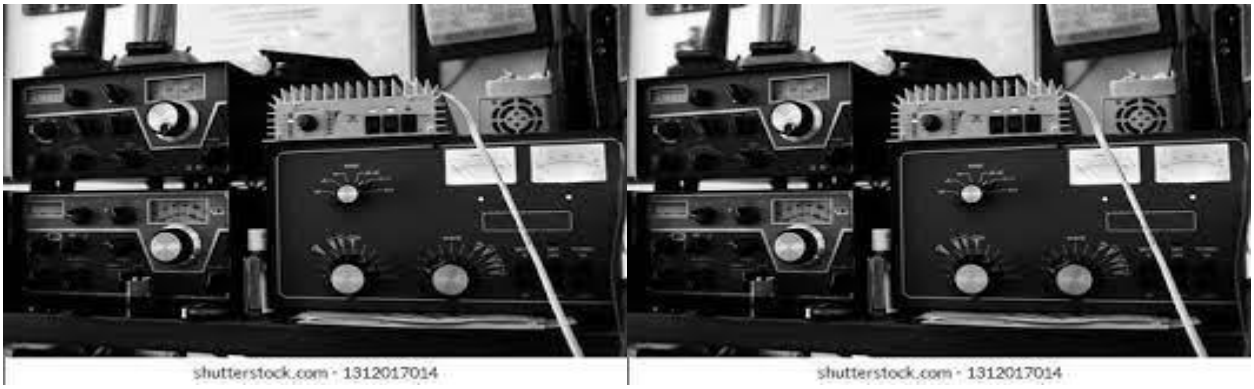
From the Editor:

Summer has come to an end, and it's been a hot and muggy affair. Kids are back in school, and retailers are already hinting at Halloween and Christmas. There was a steady stream of club news, which is included in this month's edition of the QSA-5. With the devastating fires in Maui, the club's emergency communications groups are doubling their efforts to ensure that Marin is prepared should we face a disaster.

I'd like to give a special thanks to Curtiss Kim for his contributions. Thanks to Skip and Michael as well. As I've mentioned before, you really don't need a 62-year-old guitarist, who tends to be long-winded, doing all the writing. Besides, I tend to write about things that interest me and to some, that's akin to watching paint dry. Thankfully, we have club members willing to go the extra mile and contribute to

our newsletter. With that said, please feel free to contribute to the QSA-5. If you want to write a piece for this publication, we'd be happy to publish it. Again, it's your publication. I just try to aim the canoe in the right direction. Happy September!

QSA-5Editor@w6sg.net



New Members:

Christopher Wong N6JGC - American Canyon

“Your parents hath given you a name. And the FCC hath given you another…”

Marin Amateur Radio Society – Board of Directors Meeting Minutes

August 10, 2023
Meeting Held Via Zoom

Call to Order: 19:30 Hours

Attendance: A quorum was determined to be present.

President: Ken Brownfield AB6JR
Director: Rich Cochran AG6QR
Vice President: Tom Jordan KG6TCM
Director: Jeff Young KM6Y
Secretary: Jim Saltzgaber KM6WWY
Trustee K6GWE: Brian Cooley K6EZX
Treasurer: Bruce Bartel N6VLB
Trustee W6SG: Marc Bruvry KF6VNT
Director: Steve Toquinto KB6HOH
Members Present: Skip Fedanzo KJ6ARL, Rob Rowlands NZ6J, Milt Hyams KM6ASII, Larry Bradley KK6QPE, Mark Klein KM6AOW, Andrew Mussleman KI6UOC

Adopt agenda: MSC

Approve minutes: of July 13, 2023 MSC

Secretary's Report: Jim Saltzgaber (via email): Minutes for July 2023 Meeting are in QSA-5

Treasurer's Report: Bruce Bartel: Report is in QSA-5

Committee and other reports

Membership: No Report

Facilities: Skip Fedanzo- Cleanup - Has been some sorting taking place in preparation of next weekend's cleanup. A lot of things have been marked for recycling. 9 people signed up for Saturday. Discussion of additional needs (trucks primarily). Milt - Old repeater gear has been separated and will go to repeater heaven, with the exception of usable duplexer cans. Hopefully we will be able to complete it on Saturday. Skip has not got bids for painting yet. Discussion of what to paint initially decided the front was first priority, but adding the east side will be explored. Tennant has suggested a color, subject to further discussion. Stucco repair where it has been damaged from graffiti removal to be included. Bid request will be for complete building.

Public Service: Rob Rowlands: Spartan Classic: The Spartan people are uncommunicative, and he is not able to support them for that reason.

Technical: Milt Hyams- Dan started putting together the repeater for Muir Beach water tank. Mesh equipment to be determined. Dan has to order some cable and minor parts, but it's finally moving.

VOAD/RCV: Skip Fedanzo- RCV practice drill will happen on the 19th, some coordination will be done on our simulcast repeater, but emphasis will be on using simplex to communicate around the county, so repeater use should be minimal.

VE Testing: Ken Brownfield- VE testing is scheduled for Oct 14. One candidate is signed up for now.

NBAM: Jeff Young -kickoff meeting last night for phase 2. Moving forward to pick areas for pilot type program setup. Also looking to train more people in setting up nodes and using the AREDN mesh.

Education: No Report

Old Business:

1. **Club Tower** - Club tower is for sale for $2500. Milt says that the tower brackets should NOT be discarded in the clubhouse cleanup Steve HOH is aware of an SCRA swap meet September 23, where we might be able to publicize the tower with some flyers. He is attending the swap meet.
2. San Francisco Scottish Fiddlers - San Francisco Scottish Fiddlers want to rent the clubhouse. Their meeting would start at 1:30pm, people leave by 7:30pm, usually on the 3rd Sunday of every month, around 20-30 attendees. We (MARS) would need proof of insurance. After discussion, consensus was that we don't have any background of renting it to outside groups (public service sponsors have co-used it for coordination meetings), and that we may have issues with the upstairs tenant co-used it for coordination meetings), and that we may have issues with the upstairs tenant regarding noise. There is no current inspection for use of the clubhouse for rental. Parking would also be a problem. Unanimous consensus was to not rent the clubhouse to the Scottish Fiddlers.

New Business:

1. Club Picnic - Club picnic in October: Decided to use Stafford Lake park Area 1.. Will need a check for $523.00. Tom spoke with Adam Craig about using parks and open space district lands and facilities, bringing school kids. We may be able to get free use of the parks when we bring school kids for educational purposes. Board approved expenditure of $523 for Stafford Lake park. Bruce to write a check. Tom has contacted a caterer. Board passed a motion by Jeff Young to reimburse Tom for catering expenses, up to $1200 Use of the clubhouse in the future for picnic was discussed but we would not be ready for this year, but is a great incentive to spruce up the clubhouse.

2. Spartan Classic -Spartan Classic: Rob reported that the Spartan people are uncommunicative, and he is not able to support them for that reason. There was discussion on the matter of for-profit vs non-profit events. Consensus was that it's completely legal for us to support or decline any group we want to. Board is not taking a position on whether we will support for profit events in the future; each proposed event will be judged case-by-case.

Good of the Order - Nothing noted.

Executive Session - Not Required.

Adjourn - MSC to adjourn the meeting.

Next General Meeting September 1, 2023
Next Board Meeting September 14, 2023

Marin Amateur Radio Club
Profit and Loss

January 1 - August 29, 2023

	TOTAL	
	JAN 1 - AUG 29, 2023	JAN 1 - AUG 29, 2022 (PY YTD)
Income		
Auction Income		60.00
Donations	1,699.17	118.98
Dues	7,074.75	6,305.00
Field day refund		625.00
Income from club activities		90.00
Interest Income	792.77	
Public Service Refund	450.00	450.00
Rent	20,800.00	21,000.00

Sales of Product Income		24.69
Unapplied Cash Payment Income		250.00
Total Income	**$30,816.69**	**$28,923.67**
GROSS PROFIT	**$30,816.69**	**$28,923.67**
Expenses		
Accounting	1,095.00	
Awards	299.99	
Car & Truck	2,327.80	637.04
Car & Truck Gas	258.02	177.39
Total Car & Truck	**2,585.82**	**814.43**
Field day	659.26	2,184.67
Garbage	386.04	334.88
Insurance	1,821.50	3,762.25
Comm Van Insurance	2,444.00	
Total Insurance	**4,265.50**	3,762.25
Legal & Professional Services		575.00
Meals		2,208.00
Other Business Expenses	104.93	
Public Service Expense	1,379.96	3,168.19
Reimbursable Expenses	2,448.73	2,172.86
Repair & Maintenance		1,452.72
Repairs & Maintenance		2,880.00
Repeater	1,567.50	
Taxes & Licenses	25.00	3,950.64
Telephone		94.47
Uncategorized Expense		275.00
Utilities	2,984.29	2,407.58
VE Session	129.00	215.00
Water	797.25	524.26
Total Expenses	**$18,728.27**	**$27,019.95**
NET OPERATING INCOME	**$12,088.42**	**$1,903.72**
NET INCOME	**$12,088.42**	**$1,903.72**

Marin Amateur Radio Club
Balance Sheet Comparison

As of August 29, 2023

	TOTAL	
	AS OF AUG 29, 2023	AS OF AUG 29, 2022 (PY)
ASSETS		
Current Assets		
Bank Accounts		
B of A Building account - 8795	5,948.61	6,701.43
B of A General account - 4328	51,868.24	14,192.39
CD	0.00	25,000.00
MESH	-500.00	
Money Market	0.00	5,000.00
VE Session Cash	-129.00	
Total Bank Accounts	**$57,187.85**	**$50,893.82**
Other Current Assets		
Uncategorized Asset	-95.00	-35.00
Total Other Current Assets	**$ -95.00**	**$ -35.00**
Total Current Assets	**$57,092.85**	**$50,858.82**
Fixed Assets		
club house- 27 Shell Rd. MV	58,983.00	58,983.00
Total Fixed Assets	**$58,983.00**	**$58,983.00**
TOTAL ASSETS	**$116,075.85**	**$109,841.82**
LIABILITIES AND EQUITY		
Liabilities		
Total Liabilities		
Equity		
Opening Balance Net Assets	124,400.00	124,400.00
Retained Earnings	-20,412.57	-16,461.90
Net Income	12,088.42	1,903.72
Total Equity	**$116,075.85**	**$109,841.82**
TOTAL LIABILITIES AND EQUITY	**$116,075.85**	**$109,841.82**

MARS Club History Information Needed

We're leaving this in from the last few issues of the QSA-5 because history, our history, is extremely important. The Marin Amateur Radio Society has been an amateur radio institution in the North-Bay for nearly a century. With its many decades of existence, a rich history has been garnered. It would be a shame to lose that history. Thus, we're asking for contributions!

CQ old timers:
For the last several months you have been spared my rambling musings. For a brief moment, I am back asking your help. In my role as membership chair, I get the contact emails that come in through the website. A recent request came in asking about the history of the club's repeaters. In some ways I guess I qualify as

an OM not just because I am old, but because I joined the Amateur Radio Society back in the late 1960s. I answered what I could, but it dawned on me that there are some of you out there who were in the Amateur Radio Society and the VHF Expeditionary Society before that. Getting to my point I would like to interview any of you who were involved in the early days of the club to create an oral history. We can do this either face to face or by phone or on zoom. Please let me know if you would be willing to help me out. Email me at wa6uds@w6sg.net or call me at 510-290-6069.

73 de wa6uds
Curtis Ardourel
Membership Chair, Marin Amateur Radio Society

Marin Amateur Radio Society News

RCV News

RCV Exercise

From Curtiss Kim: With the events of Maui still on their minds, members of the Radio Communication Volunteers conducted a countywide exercise using only one simplex frequency. The "No Notice" response protocol required members to reach out and set up adjacent simplex nets to pass critical information. RCV members fanned out across the county to man various sites where community-based organizations are located. Using only battery powered radios (no handie-talkies) each member set up a base of operations in an effort to link all CBOs in a single proxy net. Participants were stationed from Sausalito and Marin City to West Marin and San Geronimo, Central Marin to Novato. The drill began on the premise it was the day following a magnitude 8.2 earthquake on the San Andreas Fault. The epicenter was west of the Marin Headlands with shaking that lasted over two minutes. Widespread power outages, landslides and some severe structural damage reported. The premise also included numerous fires and

ruptured gas lines. Radio traffic was passed between locations with status updates, requests for road reports and food supply orders for the San Francisco-Marin Food Bank. True to form, during the drill there were unintentional radio equipment malfunctions, miscommunications and areas where there was no coverage altogether. Every participant kept track of each radio transmission noting reception, information exchange and acknowledgement. The information collected will be used to close communication gaps and strengthen a reliable radio connection network throughout Marin without the use of repeaters.
Licensed amateur radio operators who would like to take part in public service can contact Skip Ferdanzo at KJ6ARL@ ARRL.net

NORTH MARIN COMMUNITY SERVICES

SF·MARIN FOOD BANK

RCV Operators VIRTUAL Meeting

The monthly RCV Operators meeting Was Monday August 28th at 1730. Here is the agenda from that meeting:

Primary Agenda items are:

1. RCV vests are here!
2. Results of the August 19th RCV exercise:
    a. The Good: Messages were sent & received at EOC/VOAD
    b. The Bad: Simplex "dark zones" were found or confirmed.
    c. The Ugly: Circumstances may require searching for comms link locations.
3. CBO Profiles we've worked are sent to CBOs to add/correct details. We should be receiving their feedback in the next month or two.
4. Work continues bringing RCV and RACES under a common ACS umbrella. One consequence is we will need a few volunteers to manage shared responsibilities of both, for example:
    a. Track member activities (exercises, trainings, events, etc.)
    b. Recruiting new ACS, RCV and RACES members
    c. Members with particular skills or work preferences
    d. FEMA and other certificates earned, etc.

    If you're interested in becoming active in a particular role or activity in the combined ACS team, please let me know.

Next meeting is September 25th 2023 on Zoom. Agenda, relevant documents and Zoom login to follow.

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Latest RCV Field News

RCV conducted an on-air field exercise on Saturday August 19th from 1300 to 1500 hours. The exercise plan describes the context, schedule, assignments, and documentation used. If you want to see a more detail version of this plan, contact Skip Fedanzo KJ6ARL, RCV Lead Operator:

afedanzo@gmail.com

Please note that we will use the Big Rock repeater only to coordinate exercise activities. All other traffic should be on the primary UHF simplex frequency unless otherwise directed. There is a section in the plan that lists call signs and describes how to create standard (at least for this exercise) message IDs.

We expect that some CBO sites may have difficulty reaching another CBO and/or the EOC. In that case you may use your own initiative about how to make a connection to another station via simplex.

If you need to use the VHF (secondary) simplex frequency, please advise EOC net control on the coordination frequency.

Exercises

Scenario:

Find Your Neighbor: Discover CBO/EOC Traffic Paths: 8/19/2023:

Overview

RCV's "No Notice" response protocol instructs its members to form local simplex voice nets when our repeaters are down for any reason. The protocol then requires each local simplex net to reach out and make contact with any or all of its physically adjacent simplex nets. The goal of that out-reach process is to link all the CBOs into a single proxy net which stands-in for a repeater-based network.

The goal of this exercise is to verify this protocol does accomplish its stated purpose. Verification is considered established when the following criteria are successfully met:

1. Stand-up RCV stations at each CBO when instructed.

2. Each CBO is able to either:

a. Directly contact the EOC; or

b. Discover another RCV station(s) to relay their traffic to/from EOC; multiple relays may be required.

3. Messages are documented and tracked by a unique ID (see TABLE 2 below).

4. All stations maintain ICS-214 and ICS-309 logs. Email logs to kj6arl@arrl.net following exercise. The 214 should include signal reports for all other stations heard on simplex, specifying frequency.

Coordination during the exercise will be:

Primary = Big Rock 447.175; Secondary = Mt. Tam 146.700

Simplex frequencies during the exercise will be:

Primary = 446.675 no PL; Secondary = 146.520 no PL

Scenario:

It is the day after a magnitude 8.2 earthquake on the San Andreas Fault. The epicenter was located about 1.6 miles west of Marin Headlands. Shaking lasted at least 127 seconds. Regional impacts include widespread power outages, landslides and some severe structural damage. Most Bay Area cities suffered moderate to severe damage. Cities south as far as San Jose, east to Livermore and north as far as Santa Rosa have minor to moderate damage. Moderate to severe damage in West Marin and low-lying coastal residential areas of San Rafael, Sausalito, Marin City and Hamilton/Ignacio areais reported. Numerous fires were reported in Marin due to ruptured gas lines. During

the first 36-48 hours all Marin and Out-of-County repeaters are unavailable.

Exercises Rules

1. This is a voice-only exercise. Alternate modes of communication are not allowed.

2. Formal messages must have a unique ID (see Notes in Table 3). This enables

an accurate record of messages and facilitates incident documentation.

3. No handheld radios are allowed except to monitor the coordination frequency.

4. Mobile radios should use at least 10 watts for transmissions at most CBO sites.

Schedule

Start End Activity

1230 1300 Operators deploy to their assigned stations and standby for rollcall

1300 1310 Exercise Controller uses the Primary coordinating repeater to call roll and initiate the exercise.

1310 1440 CBO Activities:

1. Attempt direct contact with EOC/VOAD or via simplex net with relay stations.

2. When a relay station is found note that on your ICS-214.

3. The FIRST message is always a situation report (SitRep).

4. NOTE: CBOs that cannot reach any other CBO directly should inform the Exercise Controller immediately on the Primary repeater.

1440 1500 Debrief and close down

After closing down all station Operators must email a copy or scan of their completed ICS-214 and ICS-309 forms to drferret@comcast.net.

Marin RCV After Action Report for 8/19 Exercise

This is a first draft of the AAR for our simplex from CBOs exercise on 8/19. If you participated, please read it carefully and send me any corrections or edits you believe it needs.

After Action Report for the RCV "Find Your Neighbor"

Simplex Exercise on 19 August 2023

Executive Summary

RCV Operators setup and staffed radio stations at nine (9) Marin CBO sites and the EOC/VOAD via the RCV Net Control Station. Traffic was coordinated on the Big Rock UHF repeater; simplex exercise message traffic took place on 446.900.

RCV ended the exercise approximately at 1430 hours. All in all this was a challenging and educational exercise.

Overview & Goals:

RCV's "No Notice" response protocol instructs its members to form local simplex voice nets when our repeaters are down for any reason. The protocol then requires each local simplex net to reach out and make contact with any or all of its physically adjacent simplex nets. The goal of that out-reach process is to link all the CBOs into a single proxy net which stands-in for a repeater-based network.

The goal of this exercise was to test the No-Notice protocol when no repeaters were available. Verification is considered established when the following criteria are successfully met:

1. Stand-up RCV stations at each CBO when instructed.
2. Each CBO is able to either:
    a. Directly contact the EOC; or
    b. Discover another RCV station(s) to relay their traffic to/from EOC; multiple relays may be required.

3. Messages are documented and tracked by a unique ID. Instructions for forming unique IDs were distributed to all participants prior to the exercise. Practice use of ICS-214, ICS-309 and ICS-213 forms during deployment to CBO locations.

Exercise Structure:

1. Operators deploy to their assigned CBOs and standby for rollcall.
2. At 1300 RCV Net Control begins rollcall on the UHF coordinating repeater and initiates the simplex-only portion of the exercise.
3. Operator activities at each CBO included:
    a. Attempt direct contact with EOC/VOAD or via simplex net with relay stations.
    b. Transmitting a situation report followed by subsequent requests or reports.
    c. Any relay stations used should be documented on an ICS-214.
    d. Subsequent message passing continues until all are sent or the exercise ends.
4. *CBOs that could not reach any other CBO on simplex were told to inform RCV Net Control on the coordinating repeater so that other communication locations and/or frequencies could be tried.*
5. The exercise net secured at 1435.

Observations:

Overall this was a good exercise that was reasonably well-executed with no significant errors, but somewhat disappointing results. Unfortunately four CBO stations had some difficulty reaching others on simplex. That and other noteworthy items include:

1. MCCT's site did not permit successful simplex communication. Relocating to Marin City did not improve the situation despite several efforts to find

useful hillside or hilltop sites. The MCCT/Marin City RCV Operators suggested trying again with a tripod and better antenna.

2. West Marin's message traffic required relocating to pass. Ordinary simplex was receive-only from San Geronimo farther North on Shoreline and from Mesa Rd. The 147.330 repeater did allow good comms with San Geronimo as did a site on Gunn Road off Sir Francis Drake Blvd.

3. San Geronimo could not reach any other CBOs including Pt. Reyes Station on simplex during this exercise. Note that the W. Marin CBO station was not located at Pt. Reyes Fire Station, but at WMCS physical site. That RCV radio station then relocated to several different points without significant simplex signal gain.

4. New construction near Homeward Bound has created a simplex radio dead zone. The operator relocated to Hamilton Skateboard Park about 200 feet away on Hamilton Parkway. From the Skate Park NMCS messages from both Novato Blvd and Wilson Way sites were received and relayed to Net Control successfully. It's possible an antenna on the roof of Homeward Bound would enable satisfactory simplex communications.

5. Canal Alliance had good comms with Net Control and relayed messages from/to CAM, NMCS Novato Blvd and the Food Bank. Homeward Bound (at Skateboard Park) could be heard by Canal at CM 2-3; a relay for Homeward was possible, but probably not efficient.

6. RCV Net Control received eight (8) of the 15 possible messages on simplex. Marin COOP transmitted an additional 6 messages, but they were not heard.

Lessons Learned:

1. For RCV purposes a UHF repeater system with countywide coverage. Key links needed are East to/from West Marin and Marin City/Sausalito to/from San Rafael or Novato areas.
2. We need to find a reliable simplex path to/from the Marin City/Sausalito area into San Rafael. Failing that, operational (process) solutions will likely involve a pre-arranged schedule for message pick-up/delivery at supported CBO sites.
3. We need to find a reliable simplex path to/from San Geronimo into San Rafael. Such a path may require more than one relay station. If so, that situation demands very accurate **written** message handling at each relay point.

My thanks to all who participated. We learned a few things and confirmed some earlier conclusions. All in all, a good exercise.

Marin RCV UHF simplex frequency update

This was sent out from Skip Fedanzo, KJ6ARL, RCV Lead Operator. We are changing today's test UHF simplex from 446.675 (RACES Tac 3) to 446.9000 (Tac 4). Both should be NO PL and preprogrammed. Monitoring this morning indicates repeater traffic on 446.675 is constant. Sorry for the late update…Skip

RCV Sunday Net Script

Marin Radio Communications Volunteers (RCV)

09:45 am Sunday Weekly Roll Call Net UHF 447.175 MHz, - PL=156.7 Hz

SCRIPT:

QST QST QST This is the Marin Radio Communication Volunteers (RCV) 9:45 am Sunday roll call on the UHF Big Rock repeater at 447.175 MHz with *negative* offset and PL of 156.7. For information on this program please contact *Skip Fedanzo* at *kj6arl@arrl.net*

This is a directed net so please go through net control to contact another station. Your net control operator today is (*Your Name & Call)*

This net meets every Sunday morning from 9:45 to 10:00 AM local time.

Stations checking in, please give your callsign, name and location. Let Net Control know if you have any traffic or comments for the net.

Does anyone have any emergency or priority traffic for the net?

[*Handle any emergency or priority traffic]*

Stations with emergency traffic can break in at any time by saying “BREAK BREAK” followed by your call sign.

Net Control Operators rotate each week. If you wish to volunteer for Net Control on any Sunday in [NEXT MONTH], please let net control know the week: 1st, 2nd, 3rd, 4th, or 5th whenever you check in to the roll call, **AFTER THIS NET HAS COMPLETED AND SIGNED OFF. DO NOT OPEN OR ATTEMPT TO EDIT THE NET LOG SPREADSHEET DURING THIS NET.**

I will now start the roll call. [Use roll call spreadsheet, log all stations checking in]

After completing the roll call:

This concludes the roll call as I have it. Are there any late or missed members? [Log all missed and late check-ins.] Are there any Guest check-ins?

[TIME PERMITTING] Does anyone have any RCV news or items for the good of the net?

[Handle any RCV news or other items]

With no further traffic, this concludes the Sunday RCV Roll Call Net. The next RCV Sunday net will be at 9:45 am (*date of next net)*

Thanks to everyone who participated in this morning's net, and to the Marin Amateur Emergency Communications Unit (W6ECU) for use of this repeater. This is *your name, your call sign.* This repeater is now returned to normal operations.

North Bay Critical Mass

North Bay 2m Critical Mass – Sunday August 20th

This month's North Bay 2 Meter Critical Mass was held on Sunday, August 20th at the Marin County Civic Center juror's parking area. It was held in the back of the lot near the parking area for the National Guard Armory due to the type of training being conducted. The following comes from Milt KM6ASI.

This could not be a more timely topic in light of the Maui disaster. As a result of their wildfire, Maui lost not only their standard means of communication (i.e., phone, cell, internet,) but they also lost much of their amateur radio infrastructure which is fairly meager on Maui to start with. Our class will deal with installation and operation of portable repeaters.

The heart of net operations is the repeater. After the usual check-in with the Sunday Net, we will be installing a portable repeater that is owned by the Marin County OEM's RACES group and is used for emergencies. Leading the training will be our lead portable repeater engineer, Jerry Foster, WA6BXV. We will all participate in setting up the repeater which will have its own frequencies and PL. After getting the repeater on the air, we will train on field programming the new frequencies and PL into our HTs, since few of our HTs will have those programmed in advance, and then conduct a net check in. It could be classified as cheating, but is you want to practice you HT programming before the class, the frequency and PL are: 146.160 + PL 162.2. This will allow us to practice establishing and operating a complete network from scratch.

If you have never participated in setting up and operating a repeater, please join us. You can never tell when we will need these skills. It should be interesting and fun.

73, de Milt KM6ASI

Critical Mass Event Report

This month they worked on the heart of net operations--the repeater. After the usual check-in with the Sunday Net, they installed a portable repeater that is owned by the Marin County OEM's RACES group and is used for emergencies. Leading the training was our lead portable repeater engineer, Jerry Foster, WA6BXV. The group participated in setting up the repeater which will have its own frequencies and PL. After getting the repeater on the air, they trained on field programming the new frequencies and PL into our HTs, since few of their HTs had those programmed in advance. Then a net check in was conducted. It could be classified as cheating, but if anyone wanted to practice their HT programming before the class, the frequency and PL are: 146.160 + PL 162.2. This will allow interested parties to practice establishing and operating a complete network from scratch. The activities were great for those members of the group who had never participated in setting up and operating a repeater.

Here are some photographs from **Michael Fischer K6MLF:**


Jackery
INPUT
DC
USB-C
5V⎓4A
AC
Jackery
EXPLORER 1500
SWITCHING POWER SUPPLY
MFJ


RigExpert
AA-600
ICOM IC-RP1520 Portable Repeater
SWR
REFLECTED


MARIN OES
EMERGENCY
RACES
COMMUNICATIONS
LIFETIME

Clubhouse Cleanup Report

From Curtiss Kim: One man's trash is another man's treasure. With that premise in mind, MARS President, Ken Brownfield (AB6JR) opened up the back room and back lot at the Mill Valley clubhouse for a "name it and claim it" one weekend in August. According to Brownfield after years of accumulating everything from connectors to computer screens to coax to cables it was time to move it out. If you could carry it, haul it or drag it the item was yours. Originally scheduled for a two-day event, Brownfield said by early afternoon on day one he was ready to call the effort a complete success. Electronic recyclers in San Rafael said members showed up with three pallets of electrical gear which was accepted. MARS members made off with everything from test gear to antennas to old radios. After the event Brownfield sat in a nearly empty backroom and claimed the recaptured

space would be put to good use. Here are some photographs from Curtiss Kim of the event:


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VE Examination Report

The Marin Amateur Radio Society's VE Program is an extremely important component of amateur radio. The national program MARS is a part of allows member radio clubs to administer licensing tests on behalf of the FCC. What this means to people getting into ham radio is that there are more test locations and a more flexible schedule for taking the license exam. We have one sign up for the October 14th, 2023, testing date as of our last MARS board meeting.

MARS President, Jen Brown, runs our VE (Volunteer Examiner) program. The MARS VE program has had three of the four scheduled testing sessions. The next test session is scheduled for October 14th, 2023, at 1:00pm. The exam session takes place at the MARS clubhouse: 27 Shell Road Mill Valley CA 94941. Those taking their tests should arrive early (30 minutes) and be prepared. Examinees will

be required to bring valid identification and their FRN number. Those examinees who reserve a place on October 14th will be emailed with specific instructions regarding identification and the procedure for getting an FRN number. What is an FRN number? Before getting your ham radio license, you must first register for your FRN. An FRN, or FCC Registration Number, is a ten-digit number that identifies your business dealings with the FCC. The FCC requires a permanent address, so they can reach you if need be.

Here's a link to Ham Radio Prep's article on getting an FRN number. It's easy and is required in order to get your license:

https://hamradioprep.com/how-to-register-for-your-frn/#:~:text=Before%20getting%20your%20ham%20radio,reach%20you%20if%20need%20be.

KB6HOH Birthday

From Curtiss Kim: You probably won't recognize the name or the face but for many amateur operators the call sign, KB6HOH means Steve is on the air hosting the MARS Sunday morning net. Steve is Steve Toquinto and he's been hosting the weekly net for the past nine years. Toquinto remembers joining MARS around 1985 following an interest in two-way radio. The Ham picked up the bug with CB radio in the early 1970's. Eventually Toquinto has become a "good buddy" to many radio enthusiasts over the years. The operator pursued a ham ticket after a stint in the military where he found a calling helping soldiers communicate with loved ones using radio.

Toquinto was saluted for his dedication to amateur radio at an August MARS luncheon in Novato. Bruce Bartel, N6VLB, provided the cake but thankfully no candles. (It's rumored Steve was celebrating his 69th time around the sun.)
Chris Bigall, KC6ZKO, calls KB6HOH, the glue that holds everything together during the Sunday morning net. The two have been friends since the mid 1970's. Bigall calls Toquinto the "voice" of MARS.
Jerry Foster, WA6BXV, says Toquinto is friends to literally thousands of people and has become an invaluable member of the club. Foster says Toquinto is also

responsible for “Tech Net” on the Sunday morning broadcast that has helped numerous Hams. Toquinto was also the driving force behind this year’s Field Day. Milt Hyams, KM6ASI, says KB6HOH must have a photographic memory for remembering all of the names, call signs, spouses and pets of the amateurs who respond to the Sunday morning roll call.

Three years ago, Toquinto was made a “Life Time Honorary Member of MARS”. That award follows his being named “Elmer of the Year” for his past contributions to hams he has come in contact with over the air waves.

KB6HOH, Steve Toquinto, you may not know him by sight but can recognize his voice. After all, Toquinto is the first to admit, he really does have a face for radio.

Marin Century 60th Anniversary Race

The 60th Marin Century was held on **August 5, 2023,** at Stafford Lake Park in Novato. There were three route options, ranging from the 100-mile Mt. Tam Century, the 100-mile Classic Century and the 100-km Metric Century. As always, the Marin Century was full of beautiful routes, terrific support, and delicious food. Of course, the Marin Amateur Radio Society was there to provide communications support. Here's a photograph of Doug Kaye and Rob Ireson at Olema for the Marin Century event.

License Renewal Can Be a Hassle

This was brought to our attention by Ken Cochrane: “License renewal is not for the faint of heart. Kim and I just renewed, and we spent over an hour with the FCC help line. I asked her if everyone had such a hard time and she said yes. Just start early!” We’re sorry you and Kim had such trouble with the FCC Ken. Thanks for the heads-up.

SCRA Flea Market September 23rd.

Join the SCRA on Sept 23rd for Breakfast, VE Sessions, electronic and ham radio

stuff. This will be a fun activity for the whole family. If you're an aficionado of older radio, which I am, you know the best place to find those needed parts and complete radios is at Ham Flea Markets and Swap Meets. Be there or be square.

Sonoma County Radio Amateurs, Inc.

SCRA RADIO &

ELECTRONIC FLEA MARKET

Date of Sale: September 23, 2023
Location: Luther Burbank Art & Garden Center, 2050 Yulupa Ave, Santa Rosa, Ca

Schedule of Events:
6am Setup
7am Pancake/Waffle Breakfast
8am Swap Meet Starts
8am ~ 9:30 Radio Testing
9:30 ~ 11:00am Amateur Radio Exam Session
11am Breakfast Ends
12pm Swap Meet Ends
3pm All participants must be cleared out leaving a clean parking lot.
(Breakfast costs:
(Adults 13 to 100 $10.00
(Pre-Teens 5 to 12 $ 5.00
(Under 5 FREE

AMATEUR RADIO EXAM TESTS: Please contact Brian n6iiy for registration.

MEMBER SELLERS: The cost to participate is $10 per space. No last minute registrations will be allowed as space is limited. All items brought to the event must be removed when leaving as LBA&GC does not have trash pickup. No tables available.
SCRA RADIO & ELECTRONIC FLEA MARKET

Location: Luther Burbank Art & Garden Center, 2050 Yulupa Ave, Santa Rosa, Ca

FREE OFFER

Types of Sellers:
- **Ham radio enthusiasts**
- **Silent Key representatives**
- **Electronics enthusiasts**

- **Antique Radios**
- **Vintage Radios**
- **Test Equipment & Parts**

STREET PARKING OR OVERFLOW AT LDS CHURCH NEXT DOOR

Sonoma County Radio
Amateurs, Inc
P.O. Bos 116
Santa Rosa, CA 95409

EVENT CONTACT:
Iola Beckley kk6hre
707-755-1630
iolabeckley104@gmail.com

Amateur Radio Exam Test
& Radio Testing:
Brian Torr n6iiy
n6iiy@arrl.net

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 article regards Hurricane season here in California:

Tropical Storm Hilary: Amateur Radio Activates: This is why it is important to have amateur radio operators.

https://www.arrl.org/news/tropical-storm-hilary-amateur-radio-activates

Devastating Hawaii Wildfires Prompt Response from Amateur Radio Emergency Service: The ARRL was monitoring the terrible wildfires in Maui.

https://www.arrl.org/news/devastating-hawaii-wildfires-prompt-response-from-amateur-radio-emergency-service

No cellphone? No problem! The vintage radio enthusiasts prepping for disaster: Another reason amateur radio is so important!

https://www.theguardian.com/us-news/2023/may/27/ham-radio-emergency-natural-disaster-climate-crisis

Ham radio operators participate in Field Day: Here's an article regarding what another radio club did for Field Day 2023.

https://www.thesnaponline.com/2023/06/27/ham-radio-operators-participate-in-field-day/

Ham radio operators take to the air at annual field day across Oklahoma: Another Field Day 2023 report. This is from Oklahoma.

https://okcfox.com/news/local/oklahoma-ham-radio-operators-amateur-communication-drill-world-household-electricity-focus-battery-solar-generator-power-nation-country-field-day

Ham radio operators practice for emergency, build community: A nice article regarding the importance of amateur radio.

https://www.southernminn.com/faribault_daily_news/news/ham-radio-operators-practice-for-emergency-build-community/article_c305405c-1446-11ee-9e1c-17bef3ed0921.html

How Far Will A Radio Transmit? This is very useful information to have, and it's well explained.

https://www.radioddity.com/blogs/all/how-far-will-a-radio-transmit

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. Apparently, there is no FCC news as of late.

Job Posting: FCC Recruiting Field Agents: In case any of you have wanted to become a field agent. Does it come with a badge?

https://www.arrl.org/news/job-posting-fcc-recruiting-field-agents

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

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

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:

https://www.arrl.org/news/the-k7ra-solar-update-788

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-kits-boards.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-without-soldering/

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/dipole-antenna/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/