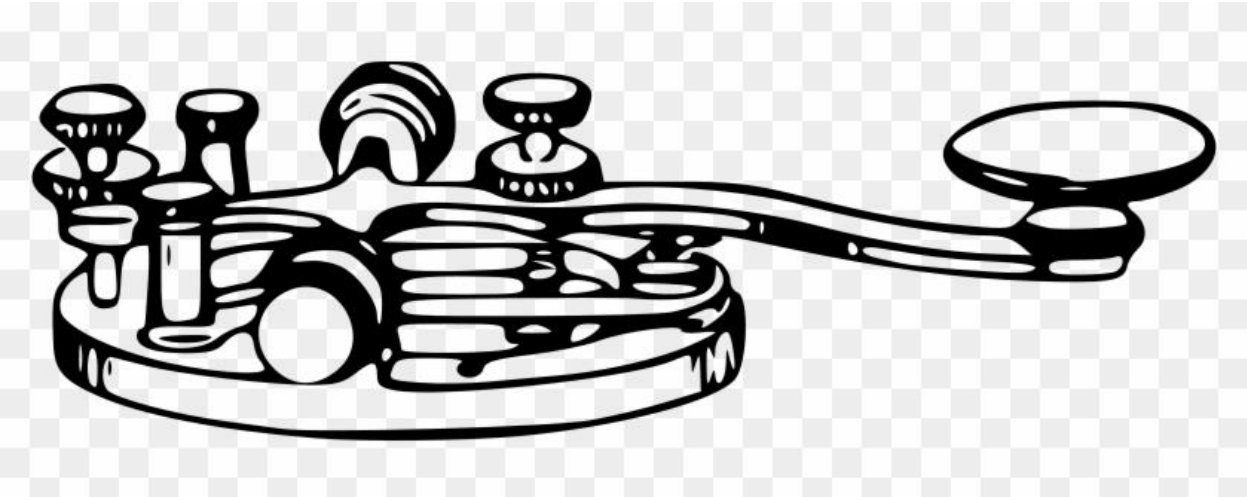
QSA-5

Marin Amateur Radio Society Monthly Newsletter

Established 1933 **June 2024**



When all else fails, you can count on Amateur Radio

From Our President:

June is bustin' out all over! That means Field Day is upon us. Just to remind you all, this year the Marin Amateur Radio Society will be participating in Field Day on June 22 through June 23 at Stafford Lake Area 1. That is where we had the picnic last year. Last year we threw something together at the last moment. This year under the able guidance of Steve Toquinto KB6HOH we will be better prepared. In my mind Field Day provides three opportunities for us.

1. The chance to practice setting up and operating in an ad hoc environment. 2. The chance for us to gather in a great outdoor setting and meet each other face to face, yes, it is in part a social event. 3 to participate in a national contest and to learn about contesting for those of us like me who have not done that in decades. I urge you to come out even if just to hang out or take the plunge and make some QSOs I will be sending out a longer email blast with more details.

I would not be doing my job unless I reminded you all to donate to the Paint the Club House fund. At his point we raised $8490 which puts the S Meter at S4. 37 of you have donated. There are four of you who have donated more than $500 each and I am hoping more of you can step up. The painting job is done, and it looks great but we will need to bring our cash reserves back up so we can move forward on other projects. The Marin Amateur Radio society is a 501(c)3 corporation and as such your donation it tax deductible. You can donate at http://w6sg.net/donate-full-width-page.php

The Paint the Clubhouse entry defaults to $20 but you can type in any amount. A part of the club that I have only regarded from a distance is our venerable Public Service team. For a variety of reasons many of the seasoned folks who have managed that team are stepping back or leaving the area. I feel that it is part of my responsibility to learn more about what we do and how we do it. I intend to involve myself at least as an observer and to assist in some aspects of our activities. If you see me out there on the course, please help educate me. I surely need it.

Enough of my nonsense for now. 73 de WA6UDS

From the Editor:

Greetings everyone! June is here and so is summer! Solar Cycle 25 is in full swing, and the HF bands are going full steam (except when solar events lock all of us out). Between advances in technology and the solar cycle, it's a great time to be a ham radio operator! Field Day 2024 is coming up towards the end of this month, so the Marin Amateur Radio Club is gearing up for this fantastic event. We'll provide full coverage of the event in next month's issue of the QSA-5.

I'm doing testing on the 8 Band Chinese USDX clone over the next few months and will provide analysis on that inexpensive QRP rig. I've also done an introductory review of the Xeigu G90, a 20W HF radio that is quickly becoming the choice of operators getting into POTA (Parks on the Air) and old-timers alike. I have been using this radio for less than two weeks and have made global contacts on just 20 Watts and an end fed random wire antenna with a 9:1 unun. Xeigu is poised to become a large player in the portable HF market. The QSA-5 will continue to feature entry level inexpensive radios for all the newly licensed club members who don't want to spend a fortune on gear as well as members who like to mod radios.

The QSA-5 is running nicely, in terms of covering club events. Of course we must thank the usual suspects for their contributions. Remember, if you don't see things of interest within the pages of the QSA-5, all you need to do is contact us and we'll include those things in upcoming issues. I've said it before, and I'll say it again: It takes a village to raise a child and it takes a club to create a worthy publication. With that said, enjoy the first month of summer.

QSA-5Editor@w6sg.net

New Members:

Christopher Slowe KO6EET - Corte Madera

Joseph Pascual KO6EFK - San Francisco

Bo Pitsker KO6EEW - San Francisco

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

Marin Amateur Radio Society - Board of Directors Meeting

May 2024

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

Attendance:

President: Curtis Ardourel WA6UDS

Director: Richard Cochran AG6QR

Director: Ed Essick K6ELE

Director: Steve Toquinto KB6HOH

Secretary: James Saltzgaber KM6WWY

Director: Jeffrey Young KM6Y

Treasurer: Bruce Bartel N6VLB

Trustee W6SG: Marc Bruvry KF6VNT

Trustee K6GWE: Brian Cooley K6EZX

Members Present: Larry Bradley KK6QPE, Skip Fedanzo KJ6ARL, Ken Brownfield AB6JR, Milt Hyams KM6ASI

Adopt agenda: MSC With addition of Zoom Registration to Old Business requested by Bruce Bartel.

Approve minutes: of 11 April board meeting- MSC without opposition to adopt Minutes of April 11, 2024, Board meeting.

Secretary's Report/Communications Jim Saltzgaber: Minutes of April 11, 2024, Board meeting minutes were published in May issue of QSA-5. Nothing additional to report.

Treasurer's Report Bruce Bartel: Financial report was published in May issue of QSA-5.

Committee and other Reports:

1. Membership Curtis Ardourel: 143 members current, this is 87% of this time last year. He will be sending out a new website password for the Members area via email. He will also be sending renewal requests to members who did not renew.

2. Facilities Skip Fedanzo: The clubhouse has a shiny new paint job! The job was given a final inspection and approval May 2nd by Skip and Jim S. Skip is contemplating projects for a while that won't cost an arm and a leg. Some ceiling tiles require replacement, we have the tiles. Some of them will need to be trimmed to fit. Some interior painting can be started. We also need to install new weather stripping for the front door. Jim Saltzgaber reviewed the attached spreadsheets for the clubhouse painting project.

3. Public Service Rob Rolands: Saturday's Miwok 100 was very rainy, and several microphones were drowned. The Dipsea race is coming up in 5 weeks. Their sweeps will be using MARS APRS radios.

Don Magdanz, Oliver Lu, and Michael Fischer will be assisting Rob with organizing the remainder of the events this season. Rob is requesting someone step up to take over the managing of the public service program. He must step back from this responsibility.

4. Technical Milt Hyams: They will be testing the RACES VHF portable repeater and the UHF portable repeater, that Milt and Rob are putting together, during the

upcoming RCV West Marin propagation test event on May 18th. The portable repeaters will be stationed at Bofax (intersection of Fairfax-Bolinas Road and W. Ridgecrest Blvd). Andrew Raike has provided another contact to help with the repeater system. He is a retired Motorola engineer and active in Sonoma County ACS. Randy Larson has been in contact with Milt, and Randy has referred the linked repeater system repairs to his firm. Milt is awaiting their reply.

5. VOAD/RCV Skip Fedanzo: May 18th RCV has scheduled a West Marin communications exercise. They will be using the portable repeaters at Bofax (Sse Technical, above). Marin County DPW is having a DPW Fair on May 18th at the Marin County Fairgrounds). RCV is sponsored by the Marin County DPW, has been invited to participate and will have a table at the DPW fair. RCV will also be running the West Marin Propagation test net control from there.

6. VE Testing Jim Saltzgaber: Next VE Testing session is July 13, 2024, at the MARS Clubhouse. We have no applicants for July 13 at this point.

7. NBAM Bruce Bartel: Meeting next week. Have been updating firmware in existing MESH nodes. Emphasis will be placed on building up the backbone, particularly up north in Sonoma County. Rob Rolands asked if anyone has looked at Dillon Beach to repair the MESH node located there. Jeff noted that he can get in touch with the water district there and arrange for access to the tank. He suggested that the most probable problem would be the network switch located there. Jim Saltzgaber will be accompanying and assisting Rob. Day and time TBD.

8. Comm Truck Jim Saltzgaber: Jim reported that he has not had time to follow up on punch list items. Bruce Bartel reported that the DMV renewal fees had been paid but we still need to get a smog cert. to register the truck. Rob Rolands said that the smog and the oil change/service could be done nearby in Mill Valley. Jim S. will follow up with Rob on these items. Jim also noted that we need to find additional interested members who will volunteer to work on the truck when needed.

9. Field Day Steve Toquinto: "We will have a field day this year and it will be our best field day ever!"

Field Day committee held a meeting last evening. Curtiss Kim is working on our press release wording. It was suggested that ARRL Field Day logo and images be included in the press release. Dan Greely KN6PNA has volunteered his trailer to

transport field day equipment. We are looking for volunteers to load the generator, equipment, and supplies at the club house on Friday June 21, as well as volunteers to act as a greeter during Field Day. Milt Hyams volunteered to greet and host any elected or county officials that may attend. Band pass filters were tested at Stafford Lake, successfully. Curtis has put together a proposed Field Day budget, the club budget has $1300 allocated for Field Day. The Field Day committee

10. Picnic Steve Toquinto: Our 2024 MARS Picnic will be Saturday September 14th. It will also be held at Stafford Lake Park Area-1 (Same location as last year's picnic.) Steve has been talking with Forrest Fire BBQ, getting menu and pricing information. We will likely be using him again this year. Volunteers are needed for all phases of the picnic planning and execution. Please contact Steve KB6HOH you can volunteer a bit of time or labor towards the picnic.

11. Bylaws Curtis Ardourel: Bylaws committee not yet set. No action taken at this time.

Old Business:

1. Paint the Clubhouse Fund Curtis Ardourel- The board has set a goal of attempting to collect member donations to recover 50% of the $30,109 cost to paint the clubhouse exterior. A "Paint the Clubhouse Fund" has been set up and to date we have received donations of $6490, representing 22% of the $15,055 goal. Curtis will continue tracking progress with the old school S-Meter graphic on the website home page.

2. Clubhouse cleaning- Rob Rowland's house cleaner is arranged for this month. We still would like to have 3 bids and determine if we would like to have a regular cleaner, and how often. Will we be evaluating their work. Discussion also questioned the need for cleaners who had their own insurance. Jim KM6WWY will discuss this issue with our insurance agent.

3. Revitalizing Babble Class: Postponed until next board meeting.

New Business:

1. Tagging donated assets – See 3. Donations Committee, below.

2. Expanding the NBAM locker – Locker is full. Do we wish to make it larger? Do we wish to give up the necessary square footage? Jeff KM6Y– This should be handled as part of a bigger agenda for the entire clubhouse storage. Mark B – Are other organizations available to assist with storing this equipment. Curtis – input will be taken to NBAM committee.

3. Donations Committee – Curtis proposes that a "Donations Committee" be formed to work out the details of the complicated processes of dealing with handling the various donations of equipment that the club receives, both from members and from the families of members who have become Silent Key. Basic issues/features to address are:

a. Simplicity for bereaved family.

b. Possible revenue for club.

c. Keeping the Clubhouse clear of junk.

d. Aid to members and or their families.

Following discussion, it was MSC to form a Donations Committee consisting of Curtis Ardourel, Steve Toquinto, Rich Cochran, and Rob Rolands. The committee will report back to the board on their progress.

Good of the Order: Curtis -Regular July membership meeting is on the 5th of July. After discussion, MSC to cancel July General Membership meeting without objection.

Executive Session: Not required.

Adjourn: MSC to adjourn @ 2112 hours.

Next Regular Meeting 7 June 2024

Next Board Meeting 13 June 2024

Marin Amateur Radio Club

Balance Sheet Comparison

As of May 31, 2024

	TOTAL	
	AS OF MAY 31, 2024	AS OF MAY 31, 2023 (PY)
ASSETS		
Current Assets		
Bank Accounts		
B of A Facilities Account - 8795	5,170.90	5,948.61
B of A General account - 4328	61,352.98	47,436.18
Cash on hand		
MESH Grant (deleted)	0.00	500.00
Total Cash on hand	**0.00**	**500.00**
CD	0.00	0.00
Money Market	0.00	0.00
VE Session Cash	0.00	-129.00
VE Session Cash Received	0.00	
Total Bank Accounts	**$66,523.88**	**$53,755.79**
Other Current Assets		
Uncategorized Asset	385.00	-95.00
Total Other Current Assets	**$385.00**	**$ -95.00**
Total Current Assets	**$66,908.88**	**$53,660.79**
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	**$125,891.88**	**$112,643.79**
LIABILITIES AND EQUITY		
Liabilities		
Total Liabilities		
Equity		
Opening Balance Net Assets	124,400.00	124,900.00
Retained Earnings	13,748.91	-20,412.57
Net Income	-12,257.03	8,156.36
Total Equity	**$125,891.88**	**$112,643.79**
TOTAL LIABILITIES AND EQUITY	**$125,891.88**	**$112,643.79**

Marin Amateur Radio Club

Profit and Loss

January - May, 2024

TOTAL

	JAN - MAY, 2024	JAN - MAY, 2023 (PY)
Income		
Christmas Party Income	640.00	
Donations	3,350.00	1,549.17
Dues	8,920.51	7,044.75
Interest Income		792.77
Public Service Refund	168.15	450.00
Rent	15,600.00	13,000.00
Unapplied Cash Payment Income	385.00	
Total Income	**$29,063.66**	**$22,836.69**
GROSS PROFIT	**$29,063.66**	**$22,836.69**
Expenses		
Accounting	300.00	925.00

Awards		299.99
Car & Truck	429.95	1,841.12
Car & Truck Gas	88.02	194.19
Total Car & Truck	**517.97**	**2,035.31**
Christmas Party	2,970.23	
Contractors	21,109.00	
Field day	35.00	122.97
Food 68.20		
Garbage	247.50	239.20
Housekeeping	448.65	
Insurance	1,131.50	1,683.00
Comm Van Insurance	2,026.00	2,374.75
Total Insurance	**3,157.50**	**4,057.75**
Meals	76.86	
Office Supplies & Software	18.00	
Other Business Expenses		104.93
Public Service Expense	3,960.47	1,328.83
Reimbursable Expenses	20.00	2,448.73
Repair & Maintenance	14.71	
Repeater	1,878.89	1,567.50
Taxes & Licenses	4,049.67	25.00
Utilities	1,849.02	1,685.90
VE Session		129.00
Water	385.29	210.22
Total Expenses	**$41,106.96**	**$15,180.33**
NET OPERATING INCOME	**$ -12,043.30**	**$7,656.36**

Marin Amateur Radio Club

Profit and Loss
January - May, 2024

TOTAL

	JAN - MAY, 2024	JAN - MAY, 2023 (PY)
Other Income		
MESH Grant Income		500.00
Total Other Income	**$0.00**	**$500.00**
Other Expenses		
MESH Grant Disbursement	213.73	
Total Other Expenses	**$213.73**	**$0.00**
NET OTHER INCOME	$ -213.73	$500.00
NET INCOME	$ -12,257.03	$8,156.36

LIFE IS SIMPLE

MARS Club News

2024 Field Day

It’s right around the corner!

The Marin Amateur Radio Society will be once again participating in Field Day. We will be operating between 11:00 AM PDT on June 22nd through

11:00 AM PDT on June 23rd. We will be at Stafford Lake Park in Novato again although we will be at Area 1 where we held the picnic last year. We would love to see you there.

We will be running three contest stations and a **G**et **O**n **T**he **A**ir **S**tation. While MARS is not really known as a contesting club, I know that there are some of you out there who are contesters. I am hoping you will come out to elmer those of us who are not shifts to roll up a credible score. We will be scheduling each station in two-hour shifts so if you want to schedule ahead of time, please let us know so you can put you on the schedule. For the rest of us there will be plenty of shifts available. Since last year we have purchased several band pass filters so the QRM between operating positions should be much less than last year.

As we have done in the past, we will feed you. Breakfast on Saturday morning for those setting up, Lunch on Saturday, Dinner Saturday night, and Breakfast Sunday morning. You are invited to just come and hang out but this is the premier contest event of the year so we would like you to take a turn operating, and there will be folks to help you get started with the operating the stations, using the logging software, and the specifics of a Field Day QSO.

We are looking for volunteers on Friday the 21st to load supplies at the club house.
Saturday the 22nd at 8:00 am at Stafford Lake to set up.
Sunday the 23rd at 10:30 am to strike down and transport back to the club house.

We had a great time and turnout last year, I am hoping for an even better turnout this year so mark your calendar.
I will be sending out more reminders with specifics as we get them nailed

down.

If you have questions contact Steve Toquinto KB6HOH our Field Day chair at fieldday@w6sg.net

Please let us know that you will be attending and roughly when so we can make sure to have enough food at rsvp@w6sg.net

73 de WA6UDS
Curtis Ardourel
President and Membership Chair
Marin Amateur Radio Society
wa6uds@w6sg.net

2024 MARS Public Service dates

If you're interested in getting involved in the public service branch of our club, here is a list of the events scheduled for this year. Radio communication is the glue that often holds these events together. As with most events, finding enough volunteers is challenging. If you're interested in helping the club, contact Rob Rowlands NZ6J: rowlands47@gmail.com

1. **Kaiser 5k and half marathon: SFARC Sunday, February 4, 2024**

DMR Radio required DMR Repeater (W6PW) Digital channel RX:444.225, TX:449.225 Color Code (CC): 1 Timeslot (TS): 2 Talkgroup(TG) 9

2. Public service briefing and lunch: Saturday April 6, 2024,1100 to 1400 hrs, Location: to be decided

3. Ridge to Bridge: Saturday, April 14 Requesting 16 MARS volunteers:

4. MCBC Jane Fondo Saturday April 27 2024 Womens mountain bike event
18 at aid stations, 3 accompany SAGs, 1 moto, 1 biker
Don Magdanz, Event Organizer at Net Control

5. Miwok 100K, Saturday, May 4, 2024
18 at aid stations, 3 hikers

6. Dipsea: 113th Annual Dipsea will be run on Sunday, June 9th, 2024 7am-2pm 20 needed
(Stinson/County CommTruck)
Don Magdanz, Finish Truck and Information Tent

7. Field Day: June 22/23, 2024 Stafford Lake Park 1800z (11am) to 2100z (2pm Sunday) http://www.arrl.org/field-day-rules

8. MCBC Dirt Fondo: Saturday, July 20, 2024, 6am - 3pm 18 needed (/Fort Cronkhite/CommTruck)
Don Magdanz, Event Organizer at Net Control

9. San Francisco Marathon **Saturday/Sunday July 27-28, 2024**

10. Marin Century: **Saturday August 3, 2024,** 5:00am-8pm 34 needed (Stafford Lake/CommTruck) Don Magdanz, Event Organizer at Net Control

11. Double Dipsea: **Saturday August 24, 2024**, (Comms Organizer TBD) 6:30am-1:30pm 18 needed (Stinson/CommTruck)

12. MCBC Adventure Revival. Saturday, September 21, 2024 7:30am-3pm. 15 needed. (San Geronimo former golf course/CommTruck?) Don Magdanz, Event Organizer at Net Control

13. ZBC Dipsea Hike: Saturday, September 21, 2014 (Comms Organizer TBD) 7am-2pm, 8 needed (Old Mill)

14. Breast Cancer Prevention Partners Peak Hike: Moved to Pacifica in 2023, no MARS radio support required.

15. MDARC Pacificon ham convention San Ramon Marriott **October ? 2024**

16. Dolphin Club Escape from Alcatraz Sunday, October 5, 2024 10am-6pm. 8 needed (Old Mill) Could certainly use 20, if more folks are interested, please!

RCV News

We're leaving this in from last month's issue for any new club members interested in the great volunteer group: This article was written by Curtiss Kim, who is a member of the RCV. Thank you, Curtiss, for this insightful piece on the RCV (and all your many contributions)! This article is a holdover from last month's issue of the QSA-5:

Members of the Radio Communication Volunteers met across the table with representatives of the various Marin County community-based organizations they will partner with during a major incident. The March workshop was the third such meeting in as many years. RCV is still considered a pilot program designed to

provide emergency communications to organizations that offer support services to various communities in the county. The agenda included practice activation scenarios, turnaround response times and expectations from both the RCV members and the community-based organizations. "Everybody knows what the right thing is to do. It's nice to have a reminder once in a while. The intent of these workshops is to have a consistent annual touch, "according to Tom Jordan, KG6TCM, Petaluma's Emergency Manager who served as the meeting's facilitator. There are currently eight community-based organizations taking part in the

program. They include Canal Alliance, Community Action Marin, Homeward Bound, Marin County Cooperation Team, SF-Marin Food Bank, San Geronimo Valley Community Center, North Marin Community Services and West Marin Community Services. RCV members are not expected to be first responders when a major incident or disaster strikes Marin.

According to Adriana Rabkin, Director of Marin's Voluntary Organizations Active in Disaster (VOAD) RCV members will be officially called out once the situation has been assessed. "Everybody was very engaged. I think they learned a lot about the process. They understood how they respond in a disaster, when their RCV operators will show up, what types of messages they might want to pass, and how we are all connected," according to Rabkin. Each participating organization along with their respective RCV members shared their concerns and criticisms during the three-hour meeting. "I think these meetings are good and I see the need to bring these lessons learned immediately to key staff members so they will know how to communicate effectively with the RCV operators," according to Vivian Alatorre, Office Manager for Canal Alliance. According to Michele McCourtney, Director of Operations for the San Geronimo Community Center, "these meetings are good. I think practice and collaboration and having a cadence is very important for the actual event that can happen." Other service agencies have shown interest in becoming part of the RCV program and more amateur radio operators are encouraged to volunteer. According to Skip Fedanzo, KJ6ARL, the RCV Lead Operator, "this is a pilot program because Marin County has never been impacted by a major disaster in the lifetime of many Marin residents. We're not in a hurricane belt, tornado alley, or flood country and we've hadn't had to build a complete response recovery organization."

1 Tom Jordan, KG6TCM

2 Adriana Rabkin, VOAD

3 Skip Fedanzo, KJ6ARL

Any license amateur radio operator who would like to take part in RCV can contact Skip Fedanzo at KJ6ARL@arrl.net

ACS/RCV Mission Statement

Mission: During national, regional, or local emergencies provide effective backup radiocommunications in support of the EOC/VOAD and Community Based Organizations (CBOs) or other non-public safety agencies within the Marin County OA when requested by competent authority.

Capabilities: Proven ability to establish and maintain radio communications between OA EOC/VOAD and CBOs during exercises including the three annual Golden Eagle and two Great Shakeout exercises. Ability to deploy and operate portable stations as needed to establish reliable communications in areas that are otherwise out of touch with the EOC/VOAD.

Resources: Develop and maintain the resources that may be needed to support the overall mission:

1. Operators – A corps of trusted radio operators with: (1) basic skills and a commitment to establishing radio communications when needed; (2) ongoing participation, training, and practice in accurately passing message traffic using a variety of basic analog and specialized digital means.

2. Mobile stations – Individual operators routinely test and maintain their own radio transceivers and related equipment including power supplies, which can be deployed to locations otherwise lacking reliable communications with the EOC/VOAD or between two or more CBOs.

3. Relationships – Establish on-going relationships of familiarity and trust between RCV operators and with key staff of served agencies, including EOC and VOAD.

North Bay Critical Mass Report

Here is what was covered at the monthly North Bay Critical Mass event in May, which was under the arches of the Civic Center, because of the potential of the temperature being high as well as reception being good at this spot:

Apart from phonetic phun, James and Rob shared some lessons from the wet and windy Miwok 100 the previous Saturday. These include wet microphones, deaf net control due to ? and chronic sweep problems!

Here's a report from **Michael Fischer K6MLF:**

We had a great group of friends, a beautiful day, a too-noisy environment under the arch, and a terrific presentation by Rob NZ6J on many of the different ways that ham radio can connect with the internet. His slides will soon follow, if you haven't already seen them.

The third Sunday of June is Fathers' Day, so our Critical Mass session will be postponed to the fourth Sunday, June 23. That weekend is also the national ARRL Field Day, so we will meet there.
http://www.arrl.org/field-day Our June North Bay Critical Mass will be held at the MARS Field Day site: Stafford Lake in West Novato. Our radio-partner Milt Hyams KM6ASI has the duty.

Several of you asked about our older brother, the original San Francisco 2M Critical Mass. They meet the second Saturday of each month; here's their website: https://www.sfarc.org/2m-critical-mass.html

Thanks to James, Scott, Gerald, Ony and Steve for assistance in setup and tear-down--truly a team effort.

See you next month,

Michael K6MLF

Here’s a link to Rob Rowlands presentation (first draft) "Extending ham radio with the Internet."

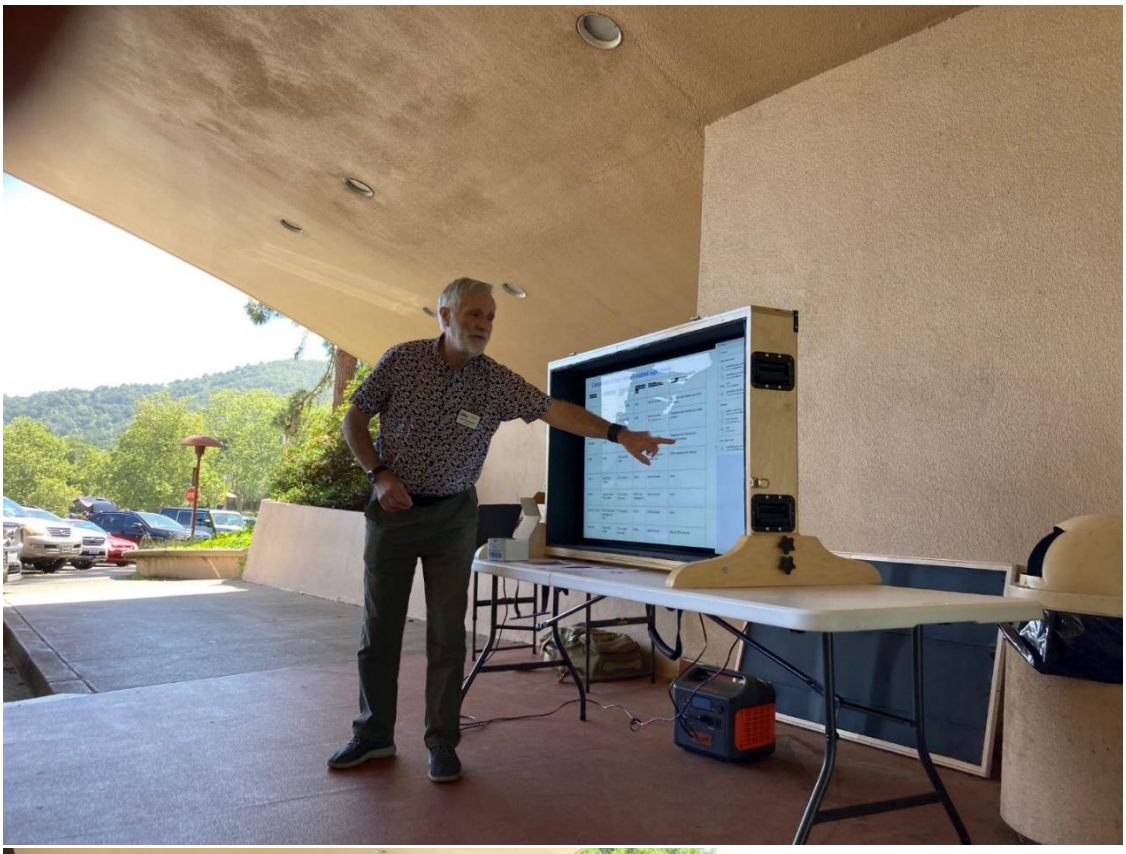
https://docs.google.com/presentation/d/11-rfHau7dNrPquwP1pVxntt6OXvSwJBfhyYuvcv9y1I/edit?usp=sharing

IMPORTANT NOTE REGARDING JUNE MEETING: DO NOT COME ON the third Sunday of June; that's Fathers' Day. Instead, our June session will be on the FOURTH Sunday, which is also the National ARRL Field Day. Our June North Bay Critical Mass will be held at the MARS Field Day site (06-23-24): Stafford Lake in West Novato.

Here are some photohgraphs from the monthly event. Thanks to Rob Rowlands!

5/19/24

NAME	CALL	EMAIL
MICHAEL F	KC MLF	MICHAELFISCHER 149 @ EMAIL COM
GERALD McCARTHY	W6NUV	g-MCCARTHY@ME.COM
ONYEMA DURU	KN6VDA	ODURU929U@gmail.com
SCOTT PASTERNAK	KN6ZDM	KN6ZDM @ protonme
CURTIS ARDOUREL	W6CUDS	curtis@ardourel.com
Stephen Kramme	KD6KXT	skramme@gmail.com
Dirck Brinckerhoff	KM6VKQ	dbrinck@pacbell.net
Ann Shores	K6SHO	A6Shores@gmail.com
Germaine Krase	N6WTQ	gmkrase@yahoo.com
JAMES BROWNEY		
ROSS ROWLANDS		
DON MACDANZ		



VE Examination News

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. Jim Saltzgaber, KM6WWY, is the Lead VE. There has been some disruption to the VE services at the ARRL. Here's an article from the ARRL:

ARRL VEC Services Update During Systems Disruption: This applies to a specific period of time during which the problems occurred.

https://www.arrl.org/news/arrl-vec-services-update-during-systems-disruption

IMPORTANT NOTE: If you are upgrading to Extra-Class, the new question pool is effective as of July 1st. This means any testing dates after July 1st will use the new question pool. If you've been studying for a test date after July 1st, using an older Extra-Class study guide, you'll have to pick up a current study guide with the new question pool. You're not going to lose the knowledge you acquired through studying with the old book, but you will have to be prepared for the possibility of some different questions added to the new test (the number of questions remains the same). In short, get an updated study guide!

The first scheduled testing session was on January 13th, 2024. The test started at 1:00pm. Our first testing session has passed, and we have three more remaining:

January 13th (Completed, we had 7 applicants, 6 successful. 4 new Technician Class and 2 new General Class).

April 13th (Completed, we currently had 7 registered applicants. Note: **This was the last VE session before the current Extra Class pool expires and is replaced with a new one on July 1st). All applicants passed!**

July 13th The third session of the year. As of our last board meeting, we had zero sign ups.

October 13th Fourth session of the year.
All exams are held at the MARS clubhouse. Check-in is 1:00pm. Information on Exam Registration is at: Register for the Exam | Marin Amateur Radio Society (w6sg.net)
The application form can be found at: MARS VE Exam Application Form

Jim S. KM6WWY

From Curtiss Kim, regarding the April 2024 testing session:

Every four years the question pool for the various amateur radio licenses change. In June a new set of questions will be in place for the Amateur Extra exam. It was no coincidence that four candidates turned out for the Extra class assessment at the most recent VE session held by MARS. The session on April 13 also brought out three hopefuls testing for Technician. The gathering went 7 for 7 with everyone passing their respective exams. Three members of MARS, Stephen Austin, KN6ORM, James Renney, KI6RGP and Curtiss Kim, KM6GUY are now part of the 16 percent of amateur radio operators that hold the title of Amateur Extra. The session was arranged by VE coordinator James Saltzgarber, KM6WWY with help from his wife, JoAnne, KN6FXH. Scoring was done by the VE trio of Jerry Foster WA6BXV, Dave Sneed WD6L, and Hugh Patterson KN6KNB. Kevin Johnston, W6KPJ, and Bob Salter, AI6EE handled compliance, check in and record keeping. The testing went on without a hitch and kudos went out to everyone involved. Applicants travelled from as far away as Fairfield, Pacifica, and San Francisco. As one amateur operator put it, “the exams are nothing more than a framework for a better understanding of the art and science of amateur radio.” MARS will hold another VE testing session on Saturday July 13, 2024, at 1pm at the Mill Valley clubhouse. Signups are required and can be done through the MARS website, http://w6sg.net.

The Chinese USDX QRP Radio

I've purchased one of these radios and have been working with it over the last month. Because it's a 5W QRP rig, it's going to take me a few months to put together the results. The reason for the lengthy testing time has to do with the plethora of antennas being used. It doesn't help that solar cycle 25 has created open and closed band situations, which limit my testing time. However, I'm working on it! Here is a brief rundown on these inexpensive HF radios:

USDX radios are shortwave QRP (low-power) transceivers made in China that are popular among amateur radio enthusiasts due to their affordability and portability. Here's a breakdown of some key points about them:

Pros:

- **Affordable:** USDX radios are significantly cheaper than many other ham radio transceivers on the market. This makes them attractive to beginners or hobbyists on a budget.
- **Compact and Portable:** Their small size and light weight make them easy to carry around for outdoor use, such as parks or summits activation (operating from a mountaintop).
- **All-Mode:** Many USDX models support multiple modes like SSB (Single-Sideband), CW (Continuous Wave), AM (Amplitude Modulation), and FM (Frequency Modulation).
- **Easy to Use:** They are often considered relatively user-friendly, especially for those with some basic knowledge of ham radio operation.

Cons:

- **Build Quality:** The build quality of USDX radios can be variable compared to higher-end models. Some users report issues like less durable enclosures or knobs.
- **Performance:** Their receiver sensitivity and filtering might not be as good as more expensive radios, potentially affecting performance in noisy environments.
- **Limited Features:** They may lack some advanced features found in higher-

end radios, such as automatic notch filters or DSP (Digital Signal Processing) noise reduction.
- **Quality Control:** There can be variations in quality control between different batches or manufacturers.

Overall:

USDX radios offer a good entry point for those interested in getting started with QRP ham radio at an affordable price. However, it's important to be aware of their limitations compared to more expensive radios.

Here are some additional things to consider:

- **Reviews:** Reading reviews from other users can provide valuable insights into real-world experiences with USDX radios.
- **Specific Models:** There are different USDX models available, so research their specific features and user feedback before choosing one.
- **Alternatives:** Consider other QRP radios within your budget to compare features and quality.

Remember, the best radio for you depends on your individual needs, experience level, and budget.

After using this HF rig for a month, I have come to a few immediate conclusions. I'm not going to provide any charts regarding performance until I've had a few months to test the radio under a variety of conditions. However, here are my initial thoughts. Here are the pros:

The USDX 8 band HF transceiver, despite the potential drawbacks, offers several advantages, particularly for beginner ham radio operators or those on a tight budget:

- **Highly Affordable:** Compared to other HF transceivers, especially

established brands, the USDX is significantly cheaper, typically costing around $100 to $170.

- **Portable and Compact:** The small size and light weight make it ideal for field operations or situations where space is limited.
- **All Mode:** Covers SSB, CW, AM, and FM modes, providing versatility for different communication preferences.
- **Built-in Extras:** The USDX comes with a speaker, microphone, battery, and even a charger, eliminating the need to purchase additional accessories.
- **Digital Noise Reduction:** A surprising feature at this price point, the noise reduction helps to make received signals clearer.
- **Learning Platform:** For those new to ham radio, the USDX offers a chance to learn the basics of operating an HF radio without a significant financial investment.

While it may not have the top-of-the-line performance of higher-end radios, the USDX provides a good entry point for budget-conscious hams or those looking for a portable option. It's also a great option for people who like to mod or modify QRP radios.

Now, with this said, the big game changer here is the antenna you use and having an antenna tuner. If you have a great antenna and the band conditions are great, you'll love this radio. You might not even need an antenna tuner. However, having an antenna tuner really helps. I used this radio with a 60 plus foot random wire antenna, a 9:1 unun, and an ATU 100 QRP antenna tuner. When 40 and 20 meters were open, I got some amazing contacts (at about 3 watts or so – the rigs are 5 watts but rarely get there). Here are some cons:

Here are some potential problems you might encounter with Chinese-made USDX 8 band HF transceivers:

- **Audio Quality:** The audio quality on the USDX can be scratchy and unpleasant. The volume control may also be non-linear, making it difficult to adjust gain precisely.
- **Receiver Performance:** While the receiver is sensitive, it can be susceptible to overload from strong signals. This can make it difficult to pick out weaker stations, especially in crowded bands.
- **Little in the way of manuals**. The key to making this rig work is being able to set the filters/controls. There are no easily accessible user guides available.

- **Limited Support:** Since these are not officially supported by the original developers, finding technical help or troubleshooting resources may be more difficult.

Here are some resources where you can find more information on these issues:

- Early days with the Chinese uSDR / uSDX reveals weaknesses
- https://qrper.com/2021/12/early-days-with-the-usdx-sdr-reveals-weaknesses/
- (TR)uSDX Under Attack
- https://oh8stn.org/blog/2023/04/15/trusdx-under-attack/

Now, if you really want a Chinese HF rig that is portable and does some amazing things, then the Xeigu G90 is for you. I own one of these and I am stunned at how well this worked out of the box. This is my new favorite HF rig!

The Xeigu G90

This is an amazing radio, period! I have and use an old school Ten Tec Corsair that I have been restoring for the last few months. However, with the VFO and power supply (both original), it takes up a lot of space, not to mention it can be temperamental. I was looking for a small HF transceiver I could use at home and in the field for POTA events. I found the Xeigu G90. It has been around for a few years and has gained a large following.

What stands out about this radio is its features and quality for a $450.00 rig. It has a built-in antenna tuner which can tune pretty much any antenna (within reason – it can't really tune a coat hanger). It also has an SWR scanner that produces a screen similar to a standalone antenna analyzer. It is a 160-10M transceiver that does LSB, USB, CW, AM as well as L-D (LSB data), U-D (USB data), and NFM.

It has a waterfall display which is useful for hunting down signals (or finding a place to call CQ that doesn't return the response "this frequency is in use you lid!"

It’s an SDR rig with a 24-bit processor, so the radio runs smoothly.

It provides 20W power, which surprisingly gets you everywhere. I’ve made contact with Chile and New Zealand, using a 65-foot random wire antenna and a 9:1 unun. On the 20M band, I have no problem talking to operators across the country, and they sound like they are sitting in my ham shack with me. The built-in speaker is loud. So, what’s the bad news?

The G90 has a tiny screen. It’s 1.8 inches. However, it is crystal clear, and I have no trouble seeing the many details that appear (and I’m one step closer to needing a seeing eye dog). Then there’s the learning curve. To look at the radio, you’d think “there’s not many buttons and knobs, so this should be easy to figure out.” What makes this radio a little difficult to master is that there are a lot of great functions and tools built in and you have to use a specific series of button commands to get to them. However, once you learn how to use the radio, it’s a breeze to operate.

The microphone, which has a push to talk button that feels solid, has a keypad to operate all the functions on the radio’s faceplate. The face plate is detachable, so

you can mount the body elsewhere if using it in your car.

You can power the Xeigu G90 with a rechargeable 12V battery. Amazon sells them for about $40.00 and it comes with a charger. Due to the low power consumption, this specific battery will get you five to six hours of hardcore use.

One last issue that is easily solved: The radio gets hot. However, you can buy a fan for it that has a heat sensor in its base that controls the fan based on the temperature ($69.95 on Amazon). It can be connected to a computer for digital modes and lends itself well to these modes. I'll be doing more on this radio in upcoming issues because I think it's a great rig. Here's a breakdown of the basics:

The Xiegu G90 is a popular choice for amateur radio enthusiasts due to its portability, affordability, and feature set. Here's a breakdown of its key characteristics:

- **Type:** Mobile and Base Station
- **Power Output:** 20 Watts
- **Frequency Range:** 0.5 to 30 MHz
- **Modes:** SSB, CW, AM, FM
- **Display:** Detachable 1.8 inch color LCD screen

Other features:

- Built-in automatic antenna tuner: This is a significant advantage of the G90 as it allows you to use a wider variety of antennas without needing a separate tuner.
- Software-defined radio (SDR) architecture: This provides the G90 with excellent signal flexibility and future-proofing for software updates.
- I/Q output: This allows you to interface the G90 with a computer for expanded functionality such as panadapter displays.
- Users report that the Xiegu G90 is well-built, durable, and has excellent sensitivity and selectivity.

Users also mention that the user interface can be a bit challenging to learn. The Xiegu G90 typically costs between $399.95 and $448.41.

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 asks the question, is ham radio still a thing?

Ham Radio? Is That Still A Thing? In today's world of technological advances, is ham radio still something to be considered as relevant?

https://incompliancemag.com/ham-radio-is-that-still-a-thing/

Get Ready for 2024 ARRL Field Day, June 22 – 23: A friendly reminder of the upcoming Field Day 2024 from the ARRL.

https://www.arrl.org/news/get-ready-for-2024-arrl-field-day-june-22-23

Monitoring the Moon when it happens: Ham radio scientists to monitor eclipse. An interesting piece on amateur radio and radio astronomy:

https://www.news5cleveland.com/news/local-news/monitoring-the-moon-when-it-happens-ham-radio-scientists-to-monitor-eclipse

No Cell Phone, No Problem: When the cell towers go down, radio will be the only form of communication:

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

World Amateur Radio Day is April 18, 2024: Its that time again everyone, so set your calendars!

https://www.arrl.org/news/world-amateur-radio-day-is-april-18-2024

Amateur Radio Operators Needed for Help with Solar Eclipse Project:

https://www.arrl.org/news/amateur-radio-operators-needed-for-help-with-solar-

eclipse-project

FCC Wants to Bolster Amateur Radio: The FCC will vote in November on a plan to remove outdated technical restrictions.
https://www.radioworld.com/news-and-business/business-and-law/fcc-wants-to-bolster-amateur-radio

Ham Radio May Speed Up Soon: An interesting piece from a online journal dedicated to advances in technology.

https://hackaday.com/2023/10/29/ham-radio-may-speed-up-soon/

Ham radio operators practice for emergencies, 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. Wow, it looks like there is some new news from the FCC:

Solar Activity Significantly Affecting Ionosphere, FCC Opens Docket for Comments on Impact: The impact of solar activity has been driven the FCC to solicit comments regarding it's impact:

https://www.arrl.org/news/solar-activity-significantly-affecting-ionosphere-fcc-opens-docket-for-comments-on-impact

FCC to Require Two Factor Authentication for CORES Users: It seems that the powers that run the big show have found yet another fee to tack on to the amateur radio operators ability to operate:
https://www.arrl.org/news/fcc-to-require-two-factor-authentication-for-cores-users

FCC To Vote on Removing Symbol Rate Restrictions: From the ARRL regarding the digital modes.

https://www.arrl.org/news/fcc-to-vote-on-removing-symbol-rate-restrictions

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-829

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/