

2023-04-11 Hamlet Net - Radio Preparedness

Announcements:

- Looking for volunteers in next few weeks for putting together FEMA forms for our events. Will be looking for people to help set that up.
- Chuck is also planning another antenna building activity - this time, you will be building your own 2 meter Yagi tape measure antennas. There will be a cost for this activity, but it's only \$10 - the club will provide all the materials, tools, and test equipment, and you will go home with a working and tuned antenna that you built yourself!

This antenna will come in handy for the next Fox Hunt that the club is putting on in May, as only DIY and homemade antennas will be allowed!

- Field Day is coming up in June, and the club is starting to work on planning for this event. See the Club website for more information.
- General meeting on 3rd Wednesday of the month - April 18th (which also happens to be World Amateur Radio Day). We have Mark WC3W to talk about the CQDX Marathon program. Will be in person at the Clover Building and also via Zoom. The activity will open at 6:30 for socialization, with the meeting starting at 7pm.
- You can start earning your 2023 membership or future renewal by acting as NCS for at least 5 nets this year. You can run either this Tuesday night net or the Thursday night net (or both). We have scripts available for both, so all you need is a good connection into the repeater, and somewhere to keep track of names and call signs as people check in. If you're going to be on the net anyway, why not save some dough at the same time! There are four free memberships available for 2023, so don't wait to get started!
- Chuck has set a goal for the Club of running at least one activity a month. This can be a hands-on construction activity, an operating activity like Field Day, a fox hunt, or a special event station. The goal is to get people together to have fun with amateur radio! We have multiple locations at our disposal, as well as lots of Club equipment, so if you have an idea for something you think others hams would like to do, please let us know, and if you're willing to run it, even better!
- The Club is also looking for presentation topics for 2023. If you have any ideas, or better yet, would like to present, please let Chuck know and we'll get you on the schedule!
- All club activities are open to anyone - members and non-members. ~~If you have questions, ask them on a net or~~ send email to elmer@w0eno.org

Presenter: Bryan, AF0W

Topic: Radio Preparedness

- The activity I'm presenting on tonight occurred back on May 8, 2021
- The Red Cross conducted their annual spring drill that weekend
- Drill simulated communications outages due to intense solar activity, including loss of satellite-based communications, along with severe damage to terrestrial power grids resulting in widespread long-term power outages, and fuel shortages for cell site generator backups
- Amateurs were asked to help provide local and long-haul communications to assist the Red Cross in setting up shelters for those in need of assistance.
- I attempted to participate in the drill, but failed miserably!
 - There were two tasks - send two Winlink messages:
 - A Winlink check-in form containing your digital GPS coordinates and a description of your station to your Red Cross division clearinghouse and cc'd to a Red Cross gmail address
 - A message using the American Red Cross form 640 Requisition Form containing information provided in a hand-written version of the form sent to your division clearinghouse
 - Messages can be sent using either HF, VHF, or UHF (cannot use telnet) and using any mode - Packet, VARA, Pactor, etc.
 - Did not prepare in advance at all - remembered about it approx. 90 minutes before end of activity
 - Ran into lots of issues:
 - Since I had not used it for a while, Winlink Express had multiple updates
 - Needed to figure out how to configure my Kenwood D710 radio for packet operation using its internal TNC
 - Did not know where to find the forms to be used for the messages in Winlink Express
 - Did not know which 2m packet station to use in our area - I found a few, but did not know the suffix to use, etc.
 - Attempted to find the LARC ICS-205 Incident Communication Plan (which lists frequencies used for LARC exercises, and which I thought would

contain a list of local Winlink packet gateways) on the Club web site, but could not (turns out it was buried in a posting on the BBS)

- I had my stations' GPS coordinates in degrees, minutes, and seconds format, but the forms for the exercise required them in decimal degree format.
 - Spent a lot of time trying to find web sites to perform conversion, etc.
 - Turns out I could have easily found this information on QRZ!
- Did not know how to cc (carbon copy) a recipient using Winlink forms
- Since I could not get VHF packet to work, I tried to switch to HF for sending the Winlink email, but my HF radio was not working properly (so I thought)
 - Turned out to be "operator error" - I'd turned my RF gain control down when running FT8, and forgot that this makes the S-meter show a continuous, high signal level. I thought my radio was perhaps damaged by the storms we'd been seeing as it showed a constant S7 noise floor on all bands - including when connected to a dummy load!
- While I was trying to participate in the exercise "just for fun," it did highlight how unprepared I would be in a real disaster situation
- Some things I plan to do:
 - I contacted Jerry, N0OUW, our club historian, past club president, and BCARES training coordinator to ask him which packet station he used, as I saw his call sign on the Red Cross exercise map
 - He replied with a lot of information, including the packet stations as well as how the suffixes are used
 - I need to print out my QRZ Details page and store it with my station documentation for future reference (in case I am not able to access the Internet)
 - I need to spend some time with Winlink to become familiar with more of its functionality - things like VHF packet operation and HTML forms

- I need to send VHF messages to the different stations that Jerry identified to make sure I can contact them, and to see what power level I need to use to do so
- I need to print out the LARC ICS-205 document and get it posted to a more accessible location on the club's web site
- I need to get on my HF radio more. Embarrassingly enough, this is not the first time that I've been confused by the RF Gain control - in fact, this was the first "issue" I had when I purchased the radio.

Not knowing any better, I set all knobs to the leftmost position, figuring that would be the "safe" position. This was fine for everything except the RF Gain - it turned the gain all the way down, which pegged the S-Meter and prevented anything but very strong signals from getting through. I thought my new radio was broken!

- Several things that should have been "obvious" or that I should have at least been able to deal with better (like the RF Gain issue) became difficult when I was under pressure to complete the exercise in a very short amount of time.
 - Had I prepared for the exercise a few days before, I'm sure it would have been less stressful, and more successful, but I would not have learned as much about my "emergency capabilities" (or lack thereof)
- Things like amateur radio nets and "traffic handling" of NTS (National Traffic System) messages are helpful for making sure your gear is in good working order and that you know how to use it
 - You have to be ready for "unplanned activities"
 - Need to be able to use a dual-band radio in VFO mode if you do not have a frequency programmed into memory
 - What if you were not able to access the Internet? What information or tools do you need to have available locally at your station?
 - In an emergency, who would you communicate with, and how? What about family members/relatives versus "official entities?"
 - LARC had a presentation by Nick Meacher at our November 2020 general meeting about Family Emergency planning and preparedness - video is up on YouTube

- People can easily become stupid (well, confused) in high-stress, emergency situations
- It does not look like the Red Cross performed this activity in 2022, and I couldn't find anything regarding 2023
 - From what I can tell, instead of using groups of amateur radio operators, the Red Cross has brought their communications "in house"
 - They are now the responsibility of a group of Red Cross volunteers called the Disaster Services Technology team, or DST
 - When a large-scale disaster occurs or is anticipated, they FedEx out a kit consisting of a satellite dish and about 50 Pelican cases of various sizes containing networking, computer, and communications gear
 - Their primary mode of voice and data communication is via the satellite dish
 - Cell phones are the preferred local communications tool, but if they are not available, the kits have satellite phones as well as commercial VHF low band handhelds, mobiles and base station radios
- LARC has run two Emergency Exercises a few years ago
 - The first one consisted of voice check ins on the club repeater, followed by participants attempting to make various different types of contacts with other participants (so you had to pay attention to who else checked into the net)
 - There were points given for voice contact with Net Control, and VHF Packet Winlink messages, VHF peer-to-peer Winlink messages, HF packet email, and HF peer-to-peer message made
 - There were bonus points awarded for using the GoBox, and for completing the exercise completely on battery power (both for your radio and computer)
 - I could not find information on the second exercise, but I believe that after initial checkin on the repeater, participants took turns transmitting from their stations and other stations made notes on who they could (and could not) hear.
 - This information would be useful to allow point-to-point Winlink communication in the event the internet or the Winlink stations are down

- The local ARES groups run a weekly Winlink exercise every Tuesday.
- There's also a group that does a weekly Winlink Thursdays exercise
- I've got links to all those groups in the notes for this week's net, and will have them up on the club web site about a half an hour after the end of the net.

Questions:

- **The question for the week is:** Have you participated in any emergency preparedness exercises, and would you be interested in participating in something like the Red Cross exercise if organized by LARC?
- **Second Q:** Is your station set up to do either Winlink over VHF or HF?
- **In my case,** in addition to the situation I mentioned above, I also participated in the first LARC exercise. I ended up with the most points of all participants, but that was primarily because I had checked out the club's GoBox, and got the extra points for battery operation and GoBox use.

More Info:

- Colorado ARES Winlink Tuesdays: <https://coloradoares.org/colorado-ares-winlink-tuesday/>
- First LARC Exercise: <https://w0eno.org/first-larc-emergency-exercise-scheduled-for-may-18/>
- Nick Meacher - Family Emergency Planning and Preparedness (LARC Nov 2020 General Meeting) video: https://www.youtube.com/watch?v=TwW5aBen_y8
- Red Cross DST presentation: http://www.tucsoncert.info/Red_Cross_DST_slides.pdf
- BCARES (Boulder County Amateur Radio Emergency Services): <https://bouldercountyares.org/>
- Larimer and Weld County ARES: <https://coloradoares.org/section/region1/r1d1/>
- Winlink Thursdays: https://emcomm-training.org/Winlink_Thursdays.html

Notes:

- If you have ideas for net topics or general meeting topics / presenters, please let us know! Tell us on a net, or send email to k0itp@w0eno.org

Email to elmer@w0eno.org

1. AF0W - Bryan - Longmont
2. KF0CFD - David in Longmont

3. NA0A - John - Boulder
4. AE0DO - John - N of Longmont
5. WA7EM - Ed - Erie - Suggestion a few weeks ago - repeater crawl. Come together in a net on LARC repeaters and then migrate to other repeaters, and see if we can get to them successfully (presumably, would return to LARC repeaters in between)
6. W0PPC - Steve - Lyons
7. KC0CT - Joe - Broomfield
8. KV0N - Raman - Lafayette
9. KE0EE - Don - N Longmont
10. N0ZFV - Bob - Broomfield

WA7EM - Section Net - Lots of time to get people checked in - Net Logger. Encouraging people to go to Dayton Hamfest.