2023-12-05 Hamlet Net - Organizing Radio Memory Channels

Announcements:

- Test Session Info
  - Next VE session is this Saturday, December 9th in the Clover Building at the Boulder County Fairgrounds, and starts at 10 am. For more info, and to pre-register, see the Licensing/Testing page on the club web site, https://w0eno.org/, under the Education menu.

- We have some volunteer opportunities available where you can help out LARC:

  - Photographer / videographer - record team activities and upload to web site / YouTube

  - LARC Fest Coordinator -

  - Newsletter Editor - put together the monthly Splatter newsletter

  - Activities Chairperson - member of the Board of Directors

- James Cizek, KI9KN, sent out an email with some equipment he is selling. I've posted a copy of the list on the LARC web site - click on the "For Sale" menu item. James is technical director of NCARC, a director at RMHAM, and a unit leader for Colorado ARES, so I would trust him for an accurate evaluation of the equipment.

- LARC is running our annual Santa on the Air event again this year, with help from the Northern Colorado Amateur Radio Club. We are planning to have Santa, Mrs. Claus, and Santa's elves operate. This is the last week of the event - it runs through Sunday, December 10.

  Our "professional Santa" has retired this year, so we are in need of some help! We currently have one Mrs. Claus and one Elf, so we need some volunteers to round out our team.

  The only requirement is that you can get into the LARC repeater or the NCARC 447.700 repeater on Mount Buckhorn - you can also use Echolink to get into the LARC repeater.

  I believe Chuck has some material put together by our old Santa on how to play the part, so if you are available, please help us out!

  Contact Chuck, K0ITP, at k0itp@w0eno.org to see how you can assist.

- RMHAM is holding their "DMR 201" presentation which includes coverage of the RMHAM network, and cBridge, using DMR for data transfer, bridging DMR and other networks, vocoders and similar topics. The presentation will be held live on December

9th at the Cherry Creek Schools Educational Services Center (4700 South Yosemite Street, Greenwood Village, CO) and via zoom, For more information, go to their web site at: https://www.rmham.org/ and see the RMHAM UNIVERSITY link on the menu.

- Our sister club up in Nederland is looking for some help with events they are running. They have a weekly Monday night net with no predetermined agenda, so you can lead it however you want. They are also planning a Field Day site at Golden Gate State Park and are welcoming anyone who wants to participate. Finally, they are looking for operators for the Ned Gravel run on July 8th. They have signup links for all these events, so head over to their web site https://w0ned.org/ for more information!

- You can start earning your 2024 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: Signal Reports

Organizing Radio Memory Channels

- All modern radios allow you to program frequencies into memory channels for fast recall

    a. Most hams utilize many frequencies for things like repeaters, simplex communications, satellite, and data communications, to name a few

b. Many hams frequently travel to different geographic areas - each of which have their own set up frequencies for local resources / groups

c. Most hams own more than one radio

- So how do you keep this organized?

- As with just about anything related to radio, the answer is "It depends," and is based on things like your equipment and what activities you use it for

- Some issues include:

  a. Numbering of the memories - some radios start with memory 0 (such as Baofengs and the Yaesu FT-60), others start with memory 1. (such as Kenwood TH-D72)

  b. Some dual "side" radios like the Yaesu FT-8800 have different memory locations for each "side" of the radio, others like the Kenwood TM-D710 use the same set of memory channels on both sides

  c. Not all radios have the same number of available memories - the Yaesu FT-60 has 1000, Baofeng UV-5R has 128. This can have implications if you are planning to keep your radios "in sync" with each other.

- Some radios include the ability to manage memories by "banks" These can be either:

  a. A set number of memories (i.e. 0-9 is Bank 1, 10-19 is bank 2, etc.)

  b. Banks to which arbitrary channels can be assigned

  c. Radios may also allow a single channel to be assigned to multiple banks

- Scanning features can likely use banks - usually by scanning through all channels in one or more banks

  a. This requires some planning as you may not want to put a frequently busy channel in the same bank as a bunch of relatively unused channels - the scan may just get stuck on the busy channel

  b. I actually ran into this when programming radios for the club. One of the frequencies is a local NOAA weather channel which broadcasts continually. When you would enable scanning on a Baofeng, it would always stop on this memory channel and never leave

  c. There was a way to deal with this - the Baofeng lets you flag individual memory locations to be skipped when scanning (the Yaesu FT-60 and

Kenwood D710 and D72 all allow to lockout channels from the scan feature)

   d. The Kenwood D710 can also scan through memory groups (it does not have memory banks - it divides the 1000 memory channels into group of 10 channels each)

   e. Another feature of the D710 is that there are 10 scan ranges in memory - you can program in 10 sets of lower and upper frequencies, and the radio will between them.

   f. Some radios (like the D710) have the ability to program "call channels" which are monitored more frequently during scans than the other channels. These can be used for the calling frequencies of each band, or for a repeater that you frequent.

● If your radio does not directly support memory banks, you can simulate some of the functionality by grouping by memory location (i.e. all the 10's are local repeaters, all the 20's are ARES frequencies, etc.)

● Some radios allow memory locations to be named, others do not

   a. Name can be: repeater call sign, frequency, part of frequency, club name, etc.

   b. W0ENO-U, LARC-U, 147270, 270

● I did some searching on the web, and found a number of suggestions:

   a. Separating memory banks out by band so you can have one "side" of your radio scanning a single band

   b. Having one bank dedicated to often-used repeaters

   c. Have an RX-only bank - such as weather or public service frequencies

   d. Assign memory channels based on frequency of use, with more often used ones appearing first

   e. Assign memory channels to banks based on county

   f. Assign frequencies to memories based on distance from home QTH

   g. Assign memories based on most-used driving paths

   h. Assign satellite frequencies to a specific bank

      i.   Assign by order of frequencies (lowest frequency in memory 0, then next-lowest in memory 1, etc.)

            ■   seems like it would be confusing, as you'll likely add or remove memories over time, changing the numbers of everything else. Also very difficult to manage by hand!

      j.   Base on ICS (incident command system) frequency plans for a local emergency services group

      k.   Organize repeater assignments low to high by receive frequency

      l.   Alphabetize by call sign

      m. Store calling channel(s) first, followed by repeaters

      n.   Some people just program a new repeater or simplex frequency into the first available memory location

      o.   Sync memory list with others in a group in which you participate. That way, you could say "Switch to 5" and everyone would know where to go

- Channel naming

      a.   Many radios allow you to assign a name to each memory location

      b.   Number of characters allowed varies but typically fairly short (Baofeng: 7, Yaesu FT-60: 6 chars, Kenwood D710G: 10 characters)

      c.   Use a code (R for Repeater, S for Simplex, etc.) followed by an abbreviation or frequency

      d.   Name by location / county

      e.   Just use channel numbers, and make a "cheat card" that contains the details

      f.   Whatever you use, make sure the naming convention makes sense to you

- Can be very useful to match handheld and mobile radio memory assignments

- Programming memory channels can be greatly assisted by using software - for example, from the radio manufacturer, RT Systems, or CHIRP

      a.   Using software that supports multiple radios (like RT Systems or CHIRP) allows you to more easily keep memories in sync between radios

b. May also be able to maintain a frequency list in a spreadsheet which can then be imported into different radio programming software

c. Can easily save multiple sets of memory channels, and then load into the radio as needed (i.e. have a "normal" set of memories, one for ARES, one for a bike race, etc.).

d. Some features (such as memory channel naming on a Baofeng UV-5R) can only be done via software programming - you cannot name a memory location from the keypad

e. If you do use software to program your radios, make sure that you either know how or have a "cheat sheet" that shows how to manually program memory locations as you never know when you might have to do so at an event

   ■ A company called Nifty Accessories makes abbreviated guidebooks for a number or radios, so you don't have to carry the full manual around, but will still be able to figure out the basics of the radio. We have those guides for the radios in the club's GoBox.

● It's probably a good idea to talk to other local hams and see what repeaters they frequent, and get started from there. You might want to check other local club's repeaters if you want to participate in their weekly nets.

● Another suggestion I found was to start with just a few repeaters (no more than 4 or 5). Each repeater has a "personality" - times when it is active, hams who are on it, etc. With a small number of repeaters, you can begin to learn this personality - if you scan through 200 repeaters, you'll quickly lose track of what's going on.

● You might also want to consider adding FRS and GMRS frequencies (while you can listen, remember you will be in violation of FCC regulations if you transmit on those frequencies without a type-approved radio)

● One of the best things about memory channels is that you can change them whenever you want, so if you pick a scheme and it just isn't working out, you can change it to something better!

Questions:
● **The question for the week is:** Memory locations - how do you organize your memories? Have you tried different schemes, and if so, why didn't you like the other ones? What sorts of problems do you run into when using memories on your radios?

- **In my case,** as with many hams, my first handheld was a Baofeng UV-5R. The first thing I did was find a list of repeaters in the area, and programmed them all into the radio. If you've ever done this, you'll immediately find that most local repeaters are not active most of the time. For example, chances are that if you tune to the LARC repeater system at a random time, you'll not hear anything (unless you hit one of the weekly nets or special events). I had my radio scanning all the way from Colorado down to New Mexico and didn't hear a peep.

  Later on, I took over the LARC radio program a number of years ago. This was where we would provide a newly-licensed ham who had taken our licensing class and joined the club a pre-programming Baofeng radio. I took the channel list they were using and programmed it onto most of my handhelds.

  I have a mobile dual-band radio I use in my shack, and originally put the same list on it, but it's a Kenwood D710 that starts numbering memory locations from 1, while the Baofeng channel list starts at zero. Memory channel zero is one of the LARC repeaters, so that messed things up from the get-go. Since I usually just leave this radio monitoring the LARC repeaters, at some point, I redid the programming and those are the only ones I have in there, in addition to the APRS frequency.

Backup Questions:

1. What hobbies do you have other than ham radio? Do you (or could you) use ham radio in these hobbies?

2. Share an "a-ha" moment you had with amateur radio?

More Info:

- CHIRP: https://chirp.danplanet.com/projects/chirp/wiki/Home:(Note: Have heard rumors that some Yaesu radios have been bricked or rendered inoperative after using CHIRP, and that Yaesu will not warranty them. I have used an older version of CHIRP with an Yaesu FT-60R and VX-3R without problems, but have not tried with recent builds)

- RT Systems: https://www.rtsystemsinc.com/

- Nifty! Ham Radio Guides: https://www.niftyaccessories.com/index.php

- 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. KM6CFI - John - Longmont
2. AE0DO - John - N of Longmont
3. AF0W - Bryan - El Paso via Echolink
4. KF0MXH - Art - Longmont
5. AI7JW - Ian (eye-an) - Longmont

Program with and without tone

https://www.ccarc.net/wordpress/

Baofeng - 70 keypresses for LARC repeater

End: 7:53