

March, 2020

# LARC NEWS & VIEWS

N4LNR



*Lenoir Amateur Radio Club Newsletter*

## Events

**Next LARC Meeting**  
Thu. Apr. 09, 7:00 pm  
Webex Online Meeting

**Raleigh Hamfest**  
Sat. Apr. 11 (**Canceled**)  
Raleigh, NC  
[www.rarsfest.org](http://www.rarsfest.org)

**Catawba Valley Hamfest**  
Sat. Apr. 25 (**Canceled**)  
Morganton, NC  
[www.cvhamfest.com](http://www.cvhamfest.com)  
*LARC is cosponsoring*

**Rotary Cycle To Serve**  
Sat. May. 09 (**Canceled**)

**Durham Hamfest**  
Sat. May 30 (**Canceled**)  
Durham, NC  
<http://dfma.org>

## LARC Meeting

Ever since 1986 when the Club came to existence LARC have held its many meetings and events in different settings and various locations. But this year 2020, for the first time ever, LARC will conduct their next monthly meeting online through the internet. This is due to the current situation with the Coronavirus and "The Stay At Home / Social Distancing Order". LARC will use Webex by Cisco, a video conferencing program.



Webex allows individuals to virtually meet with other people without leaving their home. A few of the club members conducted a test run and it was a success. LARC thanks everyone who participated. An invitation email will be sent to all the members for the actual Club meeting which will be on April 9, 2020.



# President's Comments

## **Mitch Mast (KN4AYD)**



To Our Valued LARC Community and Friends:

I am pleased to serve as president of the Lenoir Amateur Radio Club. My sole personal goal in this role is to help LARC become the best it can be for its members and the

community. The other elected officers are outstanding and bring a broad range of skills to the Club. We all share the common goal of continued growth of LARC.

The elected officers have the obligation to set the Club's future direction with means and measures for achieving that direction. Four years ago, the officers set the goals of "increasing membership" and "improving preparedness". While good progress has been made to add new members and upgrade the trailers, these goals need cohesive framework for LARC to continue moving forward.

This year, our plan is to develop a framework that will:

- ◆ Increase membership
  - Educate with Programs/Events
  - Train with Classes/Testing
  - Visibility via Website/Newsletter/Social Media/Nets
- ◆ Improve Preparedness
  - Equip Trailers
  - Experience Hands-on Radio
  - Define Relationships with Served Agencies
  - Interface with Area Clubs
- ◆ Insure a Sound Financial Future
  - Leverage monies for potential income/growth
  - Seek donations of monies / equipment to generate income
  - Provide several means to encourage donations
- ◆ Create a Historical Perspective
  - Document the story of LARC to preserve its history

Our regular meeting is held the Second Thursday of each month at 7:30 PM at the Gamewell Fire Department, 2806 Morganton Blvd SW, Lenoir. We will post the meeting agenda on our Club website N4LNR.ORG on the First Thursday. We are also adding an optional "meet and greet" at 6:30 PM prior to the regular meeting with the officers present so that members and guests can get to know each other better, talk radio, or express concerns they may have with Club or any other matter.

LARC has a rich history and its founding members and those who came after them over the past 33 years have built a strong foundation for the future. This club is your club and it will survive and prosper only if you provide the care and feeding it needs. We sincerely hope that each of you will support LARC and that working together we will keep amateur radio fun and make LARC an even better club.

Thank you for your continuing interest in LARC and we hope to see you at a Club meeting or event.

Mitch Mast, President  
[president@n4lnr.com](mailto:president@n4lnr.com)

Scott Hunt, Vice President  
[vp@n4lnr.com](mailto:vp@n4lnr.com)

Jeff Tickle, Secretary  
[secretary@n4lnr.com](mailto:secretary@n4lnr.com)

Ro Maddox, Treasurer  
[treasurer@n4lnr.com](mailto:treasurer@n4lnr.com)

## LARC and The EOC

Communication is integral during disasters and emergencies. At such time, volunteer amateur radio operators may be called upon for communication support to the community. The Lenoir Amateur Radio Club is working in partnership with the Caldwell County Emergency Management to provide communication support when the need arrives. LARC has established a radio room located at the county EOC (Emergency Operations Center) in the HHS Building, 2345 Morganton Blvd SW in Lenoir, NC. The Lenoir Amateur Radio Club is capable of various modes of communication which includes VHF, UHF, HF, digital, and Morse Code.



LARC is also in association with the North Carolina Auxiliary Communications (AUXCOMM), Caldwell County Amateur Radio Emergency Service (ARES), and the Caldwell County Community Emergency Response Team (CERT) of the Radio Emergency Associated Communication Teams (REACT) NC.



## EOC Radio Room

Some time ago, the Caldwell County EOC (Emergency Operations Center) which is located on the third floor of the Health Services building across from the Sheriff's office in Lenoir agreed to putting in a ham radio station in their radio room, so that certified volunteers can help out in future disasters and emergencies when called to do so by the County.



Last year, the EOC relocated the radio room but had a need to lengthen the antenna cables (both HF and VHF) from the old radio room to the new room (which is shared with the Caldwell County REACT chapter). On Friday, March 20, 2020 Dick (K0CAT), Gary (K3OS) and Frank (KN4ACU), spent about 5 hours at the EOC making repairs to the HF antenna and running new coax from the vicinity of the old radio room to the new radio room.

Frank, having worked with Vic Misenheimer (Emergency Management Director for Caldwell County) on a number of training events, was asked by Tom (KA4HKK) the Caldwell County ARES (CARES) Emergency Coordinator, to coordinate this project, he appreciated the expertise of both Dick and Gary in seeing it to completion.

We knew that the coax needed to be lengthened and were made aware of some of the other issues that had been identified by folks when operating out of the EOC. Frank went up a few days prior to access the situation and make measurements, so he had an estimate of how

much coax and other materials were needed for that part of the project. Coordinating with Dick and Gary, we wanted to expedite the repair project in case we were called upon to man the radios during the COVID-19 pandemic or some other need arose, as the State and County were already in an official "State of Emergency".

We began our work with confirming the run on the new cables. We got the old coax run along an existing wire run as far as they would go, which got us out of the main EOC room and through the hallway. From there we decided to move to what might be the more challenging part of the project, the repairs to the HF antenna and its coax cable. Quoting from Dick, "The challenges up on the roof are more problematic. We found that hard line was used up on the roof and we "think" we fixed the connector on the HF line. HOWEVER, we found the SWR up there was flaky and discovered there is common mode current running on the outside of the coax because a balun was never previously installed. We did tweak the 80m dipole length but the 40m was adequate without adjusting it. We needed to also come back and lower the HF antenna pole all the way down and besides installing a balun, we needed to double check the connections at the very top (we just didn't trust it as the SWR was intermittent)."



After finishing up all we could do on the roof at that time, we returned to running the cables from where we had previously stopped and headed to the new radio room. We cut a 100' LMR 400 equivalent cable with end connectors Dick had brought from home into two 50' lengths which was sufficient to complete the runs, with some extra, and put connectors on the ends in the radio room. As we were using an existing wire run/cable tray above the suspended ceiling with what appeared to be phone or data lines, we would push those cables to one side and zip tie our coax as high on the opposite side as possible in an attempt to mitigate any RF interference from our transmission cables to the data cables and vice versa. We will have to go back into the ceilings again to finish pushing those dozens of data cables away from the radio coax.

Vic and other folks at the EOC were very cooperative with our efforts and appreciative of our work. They were very grateful that we had volunteers who could and would take on this task as they had been diligently trying for many months to get this done to no avail. Gary and Dick worked up a list of the supplies we needed to continue the repairs which Frank sent to Vic for ordering.

On Friday, March 27 we returned to the EOC, our supplies having arrived the previous day. Dick, Frank and Gary were joined by Paul (WA2ZCM) who was able to help us for about an hour and also brought another ladder which allowed us to not have to constantly move our other two ladders on the roof. Vick let us in the building and presented us with 2 additional card keys for ARES/AUXCOMM members to access the building and EOC areas.

We started our work back upon the roof wanting to take advantage of the cooler morning air. We totally lowered the HF antenna, removing it so that we could take it to the radio room to work on it. We checked all the connections, tightening and cleaning as we went. Gary and Paul installed the current balun and sealed the connectors from the weather. We returned to the roof, raised the antenna with the push pole masts and checked it with an antenna analyzer. We found that the optimum frequency had shifted, so where we had previously shortened the 80 meter segment, we now had to lengthen it. So, we let out about four inches on each end, tested and called it "good to go". The antenna is sitting on top of a metal wall, has metal air conditioning units beside it and has metal cable guy wires which may likely be resonant, all of which may affect its propagation. We began to wrap everything up,

literally, as we put sealant tape on the HF coax connector from the antenna to the coax section running to the EOC.

But, as Frank was holding the cable for Dick to wrap, he pulled the coax right out of the connector! This of course required cutting away the sealant tape so we could get to the connector, which we replaced with a new one. The new connector was soldered to the coax and the section again sealed.



We decided that at least this may have been a blessing in disguise, as the connector was not properly soldered and could have caused problems. Gary mentioned that the hardline center conductor was copper covered aluminum and that the previous soldering attempt for the center wire apparently did not have solder flow down far enough to bond with the copper coating.

Going back down to the radio room, we added coax jumpers so there would be more flexibility in the coax connecting to the radios.

We tested both radios, the HF being “good to go”, and Dick taking the UHF/VHF radio home to see if he could clone it with the most likely reachable repeaters. (Later Dick reported the cloning did not work.) We arranged the power supply and power distribution strip below the desk and dressed up all our power wiring.



Finally, we cleaned up our area, the radio room being a shared space with REACT and headed out. Having spent an additional 3 hours at the EOC we should have everything functioning when ARES/AUXCOMM may be needed.



## Frequencies

**146.625- 94.8**

Club Repeater (N4LNR)

**147.330+ 141.3**

Hibriten Mountain Repeater  
(KG4BCC )

**145.535**

Simplex

**29.6**

Simplex FM

**28.374**

Simplex USB

## Nets

**LARC Weekly Net**

Tuesday, 7:00 PM

146.625 Minus PL 94.8

Alt. 147.330 Plus PL 141.3

**Caldwell ARES Net**

Sunday, 9:00 PM

147.330 Plus PL 141.3

**DMR Digital Net**

Tuesday, 8:00 PM

Lenoir Local DMR

## Lenoir Amateur Radio Club, Inc

P O Box 3276

Lenoir, NC 28645

N4LNR.org

*Serving Amateur Radio In Caldwell County Since 1986*

## Become a member or renew your membership

Pay your dues in person to the Treasurer or by mail

Full Member \$15/year

Family Member \$25/year

Ask about our Life Time memberships

*Send comments concerning the LARC NEWSLETTER to*

*newsletter@n4lnr.com*

*Suggestions and your articles are appreciated. Tell us about yourself so we can feature you in our newsletter.*

*To unsubscribe from the Newsletter,*

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