



AUGUST 2018

N4LNR

News & Views

**P. O. Box 3276
Lenoir, NC 28645**

**Serving Amateur Radio
In Caldwell County
Since 1986**

Coming Events

Volunteers Needed

- Sept 8-10 ARRL
Sept VHF
Contest
- Oct 6 Zack's Fork
Trail Run
- Oct 6 Fox Hunt &
Picnic

ARES/AUXCOMM – August LARC Meeting

Recent weeks have been filled with severe weather events that remind us that volunteers are needed to assist the community during these events. Tom Land KA4HKK, Caldwell ARES/AUXCOMM Emergency Coordinator, will discuss volunteer opportunities, training and deployment at the August 9 meeting.

A business meeting will follow the program, including planning for several upcoming events. See you there!



Next LARC Meeting:
Thursday, August 9, 7:00
PM, Gamewell Fire Dept.
2806 Morganton Blvd SW,
Lenoir

LARC Weekly Net: Friday,
9:00 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

Caldwell Severe Weather Net:
Saturday, 7:30 PM, 147.330 Plus PL 141.3

Member Watch



We really hated to see Brian KM4KIS and family move to Tennessee! Brian took a position with the new Google facility there and, of course, it is closer to family. He was active in LARC, ARES and SKYWARN. He will be missed.

Dick KOCAT tells us that wife Jill is slowly making progress after having a setback from infection and being unable to eat. She has regained her teenage figure probably because of Dick's cooking. Please continue to keep her in your thoughts as she continues to climb this steep hill. Dick is ready to get his partner in crime back to work. You go, girl!



Please send scoop on LARC members to the Newsletter Editor so we can share the news.

Trailer Storage Solution Underway

Following the July meeting, Gary K3OS and John AG4ZL met with Mitch Mast, a member of the Foothills Community Workshop Board of Directors, to follow up on seeking a place to store the communications and antenna trailers since the space at Lick Mountain is no longer available. A verbal agreement was reached to store the trailers in a building behind the burned-out Old Shuford Mill site at no cost in exchange for assistance in cleaning the space and, at some time in the future, helping paint the interior as well as assisting FCW in setting up its radio station and antennas. After visiting the space, Gary determined that access into the building for the trailers was limited by the door height.

Dick KOCAT met with Mr. Mast this week and walked the space and discussed the need for the door height to be increased and security. Mr. Mast said that he had plans to increase the door height and to install a security system. They also discussed where the trailers would be physically located in the building. Mr. Mast reiterated he would provide space for LARC trailer storage and that discussions will continue to get the space ready.



Shelby Hamfest Coming ~ August 31-September 2

The 2018 Shelby Hamfest will be held at the Cleveland County Fairgrounds, 1751 E. Marion St., Shelby NC. Hours are: 9-5 Friday, 8-5 Saturday, and 8-1 Sunday. Gary K3OS and Ro K4HRM are tentatively planning to have space in the Flea Market to sell items that were donated to LARC. Volunteers are needed to help setup the items for display and to assist in selling these items. Please contact Gary at garysch69 dot gmail dot com, if you plan to attend the Hamfest and are willing to volunteer a few hours to help generate some income for the Club.

The items that will be up for sale are listed below. If anyone is interested in purchasing an item prior to the Hamfest, contact Gary at the above email address. Prices had not been set as of the Newsletter deadline, however, hams know how to negotiate!

Collins	Model 51J-4	S/N 1446
ITT/MacKay Marine	Model 3010	S/N D0630 (not complete - parts only)
ITT/MacKay Marine	Model 3010C	S/N 60186
Collins	Model 51J-4	S/N 444
Collins	Model R-388 19	S/N 4
Rhode & Schwartz	Sideband Adapter	S/N 424105
Motorola	Model R390A	S/N 2015
Collins	Model R390A	S/N 1475
EAC	Model R390A	S/N 2791

Seibt Helefunken	Model EJ472	S/N 05203 Receiver
Telefunken	Model 32A	S/N 3013 Receiver
Siemens & Halske	Model RFE33	S/N 977859 Receiver
Collins	Model 310B-1	Exciter (no tubes)
Misc Parts/Chassis		

Notes:

1. The German receivers are 220V. Condition is good or better on most, but we will not power them up -- old German tubes
2. A number of the US radios look complete.
3. The Collins 51J-4 is the military version of the 74A-4 and has mechanical filters. The R-388 has no mechanical filters. The R390A had mechanical filters beginning with a certain chassis revision -- need to check. We have 3 different manufacturers of them -- there were more.





Caldwell ARES/AUXCOMM

Member Training



FEMA Releases Revised Basic ICS/NIMS Independent Study Courses

FEMA released two revised online ICS/NIMS courses last month:

IS-100.c, *An Introduction to the Incident Command System*

This course introduces the Incident Command System (ICS) and provides the foundation for higher level ICS training. The course describes the history, features and principles, and organizational structure of the Incident Command System. It also explains the relationship between ICS and the National Incident Management System (NIMS).

IS-700.b, *An Introduction to the National Incident Management System*

This course provides an overview of NIMS, which defines the comprehensive approach guiding the whole community - all levels of government, nongovernmental organizations (NGOs), and the private sector - to work together seamlessly to prevent, protect against, mitigate, respond to, and recover from the effects of incidents. The course provides learners with a basic understanding of NIMS concepts, principles, and components.

Together, these two online courses form the foundation of ICS/NIMS training for all incident personnel. Note that IS-100.c and IS-700.b are updated versions of the IS-100.b and IS-700.a courses. If you have successfully completed a previous version of these courses there is no FEMA requirement to take the revised versions of the courses. However, because these courses contain new information based on the revised NIMS, October 2017, you may find it informative to review the new versions of these courses. The new courses will be available through FEMA's [EMI website](#).

Learn more on making Powerpole connections, soldering, building dual band J-Pole antennas and other technical topics of special interest to public service operators. Click [here](#).

Learn more on current digital modes used for incident and event communications and operating [here](#).

Note: Reprint from the *ARRL ARES E-Letter*, July 18, 2018.

Volunteers are needed for upcoming events!

Shelby Hamfest, September VHF Contest

Zack's Fork Trail Run, Club Fox Hunt/Picnic

Please step up and join in the fun!

In the Beginning: Helpful Information for the New Ham

Radio Frequency Connectors

Inevitably, hams want a better antenna than that on the BaoFeng or other HT. Dreams of wire strung through the trees, of Jpoles in the attic, and mag mounts attached to the car quickly bring to fore the problem, challenge, or opportunity to connect the radio to the antenna. That will, in turn, require the young novice to look at precisely how the antenna is supported to connect to the radio, and that means he or she must concern themselves with how the cable connects the radio to the antenna.

For various reasons, there are many connectors used for radio frequency applications, and here we will look at four of the popular ones used in amateur radio to connect coaxial cable to the radio and antenna.

PL259 and SO239: Traditionally (back into the 1930s or so), the most popular connectors have been the PL259 and its companion the SO239. The PL259 is the male plug while the SO239 is the female side of the connection. Virtually every radio beyond the HT will have the PL259 or SO239 connector on the back of the rig. It is relatively easy to use for coax from the RG58 to RG8. It is not, however, waterproof, so if you want to connect two cables outside, you have to somehow prevent water from seeping into the cable and ruining it. Wrapping it with electrical tape and then varnishing the tape seems to waterproof the connection.

The dimension of these connectors will typically match that of the coax cable being used. The designers do this to minimize losses as the signal goes from one cable to another. Typically, there is about a 0.2 db loss in using a connector, although some can be significantly less. Recall that a 3 db loss means that half the power is lost, so that if a connector has a 3 db “insertion” loss, then half of the power going from, say the transmitter to the antenna is lost at the connector. Clearly, that is unacceptable. On the other hand, 0.2 db loss may be ok.

BNC: Another popular connector is the BNC. Manufacturers are not using it as much anymore because, even tho it is smaller than the PL259, it is too big for some of the modern HTs. It is frequently found, however, in use with computer systems which may use the RG58 or RG59 coax between them. The connector has the advantage that it can be partially waterproof, and can be easily connected to the wire. The BNC was designed for military use and has gained wide acceptance in video and RF applications to 2 GHz.



SMA: The BNC has gone out of vogue in favor of the SMA connectors. The BaoFeng and other HTs typically use such connectors because they are about the right size for the various HTs in use. Some rigs will have a male SMA connector while others will use a female one. It is intended for use on semi-rigid cables and in components that are connected infrequently.

N: The Cadillac of RF connectors typically used in amateur communications is the N type, which has an internal gasket to keep out moisture.



The variation in types of connectors brings up a significant issue. Frequently, a ham will use a PL259 connector for his coax cable. The problem is that the radio may have an N or BNC connector. What happens now? Not to worry. This is a common problem, and manufacturers of these connectors have made various adapters. For example, there are plenty of adapters to connect that PL259 to an N or BNC or SMA connectors. And if you need an adapter to connect your SO239 to an N or BNC or SMA connector there are adapters for that as well. There are even adapters that will have a 90-degree angle in them, so that you can avoid bending the coax. If you need to connect two coax cables together and both have a PL259 end, there is an adapter for that. Indeed, after being a ham for any length of time, you will likely have a bag of adapters as well as a few PL259 or SO239s in the shack. Don't worry this is perfectly normal.

For further information on connectors, these sites are worth looking at:

<https://www.arrl.org/files/file/Technology/tis/info/pdf/9104035.pdf>

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Note: Reprinted with permission from *The Printed Circuit*, Tallahassee Amateur Radio Society, May 2018.

CQ CQ

Have you made a cool QSO and want to brag a little? Send an email to the Newsletter Editor with the "callsign, location, and date" and it will be published for all to see!

FCC Cites Baofeng Importer for Illegally Marketing Unauthorized RF Devices

The FCC has issued a *Citation and Order* ([Citation](#)) to [Amcrest Industries, LLC](#) (formerly Foscam Digital Technologies, LLC), an importer and marketer of popular and inexpensive Baofeng handheld transceivers, alleging that the company violated FCC rules and the Communications Act by illegally marketing unauthorized RF devices. The FCC asserts that Amcrest marketed Baofeng model UV-5R-series FM handheld radios capable of transmitting on "restricted frequencies." The Baofeng models UV-5R and UV-5R V2+ were granted an FCC [equipment authorization](#) in 2012 to operate under Part 90 Private Land Mobile Radio Service (Land Mobile) rules.

"Under § 2.803 of the Commission's rules, an entity may not market a device that is capable of operating outside the scope of its equipment authorization," the FCC *Citation* said. "RF devices that have been authorized under Part 90 rules, such as the model as issue, must operate within the technical parameters established in those rules." The FCC also maintained that the UV-5R 2+ is capable of operating at 1 W or 4 W, while the Part 90 Equipment Authorization limits the power output to 1.78 W.

Amcrest conceded that the units were capable of operating on restricted frequencies but told the FCC that, per discussions with the manufacturer, were "only capable of operating at 1 W, the FCC said. The company instructed the manufacturer to fix the problem and later confirmed with the manufacturer that all Amcrest inventory on order and in the future would operate only on 145 - 155 MHz and 400 - 520 MHz.

While the *Citation* does not mention Amateur Radio, the UV-5R series radios can be programmed in a channelized configuration to function on 2 meters and 70 centimeters. According to the *Citation*, Amcrest had added a warning in its user manuals and marketing and sales materials implying that the UV-5R V2+ could operate on unauthorized and restricted frequencies, including Part 87 Aviation Services frequencies, Part 80 Maritime Services frequencies, and frequencies reserved for federal government use.

Amcrest told the FCC that it had ceased marketing four models in the Baofeng UV-5R series "a few years ago," but it did not remove them from its website until last February. Numerous online retailers continue selling UV-5R series radios for less than \$25, with some ads indicating that these are "ham" equipment. Read [more](#).

Note: Reprinted from *The ARRL Letter*, August 2, 2018.

The above article has raised the question "Is my BaoFeng UV-5R now illegal to operate?" The short answer is "No." For more information, go to Ham Radio Q&A, KB9VBR at <https://youtu.be/aRNMiK3w4k4>

Upcoming Hamfests: Mark Your Calendar

August 11: **20th Annual Cape Fear ARS Swapfest**, Cape Fear Amateur Radio Society, Fayetteville, <http://www.cfarsnc.org>

August 31-Sept 2: **Shelby Hamfest/ARRL Roanoke Division Convention**, Shelby Amateur Radio Club, Shelby <http://shelbyhamfest.org>

October 14: **Maysville Hamfest**, Maysville Hamfest Association, Maysville, NC, for further information, contact bhIGHLAND at nc dot rr dot com.

November 18: **JARSFest**, Johnston Amateur Radio Society, Benson, NC, <http://www.jars.net>

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