JULY 2014

N4LNR News & Views

P. O. Box 3276
Lenoir, NC 28645
http://lenoir-arc.org

Serving Amateur Radio
In Caldwell County

Save the Date!

Next LARC Meeting
July 10, 2014
Thursday, 7:00 PM
Gamewell Fire Dept
2806 Morganton Blvd SW, Lenoir

LARC Weekly Net
Thursdays 9:00 PM
146.625 MHz Minus PL 94.8
Alt 147.330 MHz Plus PL 141.3

Caldwell ARES Net
Sundays 9:00 PM
147.330 MHz Plus PL 141.3

LARC to Participate in NC Blackberry Festival

In Caldwell County, blackberries are a part of every day life – children beg to go pick from the wild berries lining every bank and mothers take what isn't eaten during the day for cobblers. Blackberry cobblers and jam are a strong part of local heritage. The North Carolina Blackberry Festival offers summer fun to all visitors.

The Festival is Saturday, July 12, in Downtown Lenoir from 10 AM until 4 PM. LARC will have a booth that will provide educational materials for those interested in amateur radio. Additionally, an HF and VHF radio station will be operating as well as DMR technology. Tom KA4HKK and Ro K4HRM have volunteered to man the booth; however, additional volunteers are needed.

For additional information for the Blackberry Festival, go to http://www.caldwellcochamber.org

President's Message

"Why?" That's somewhat of an unusual way to start an article but that is the word that is often the start of every discovery and adventure. That question, and its brothers of Who, Want, When, Where, and How have inspired every gain of knowledge and every step of every journey.

At time of writing, Field Day 2014 hasn't occurred yet but I know that those questions will be asked during that Saturday/Sunday event. I hope that children and teenagers playing at the park got curious and walked over to see what all the activity was about, and took enough interest to sit down at a mic and give a "CQ". I hope that folks driving by on the road saw the antennas and crowd and curiosity motivated them to turn in and investigate. I especially hope that all who participated enjoyed the various aspects and avenues of communicating with others from all over the world.

Sure, it takes a lot of work to set-up, operate, then teardown the gear but hopefully it brings enjoyment that excels above the work. Several (like myself) will bring equipment that hasn't operated since the previous Field Day and hope it works once again. Others will bring out rigs that are still warm from working earlier at home and have logged more hours than some children are old. However Field Day 2014 ended, I'm hopeful looking forward that it was successful, safe, and enjoyable.

73 Ted, KF4FLY

City of Lenoir Proclaims Amateur Radio Recognition and Appreciation Week

By its action on June 17, the City Council of Lenoir proclaimed the Week of June 23 through June 29, 2014 as *Amateur Radio Recognition and Appreciation Week* throughout the City of Lenoir and Caldwell County. Ro K4HRM accepted the proclamation presented by Mayor Joseph L. Gibbons on behalf of LARC and thanked the members of the City Council for their action.

This proclamation recognizes the service of LARC to the community and acknowledges the efforts of the many "hams" in Lenoir and Caldwell County. This honor highlights a week that ends with the 24-hour encampment exercise and public demonstration of amateur radio skills and disaster readiness – Field Day 2014.

LARC FIELD DAY 2014

5 Reasons for Success

1. Antenna Farming

2. Station Building

3. CQ Field Day, November 4 Lima November Romeo

4. Food

5. Friends

Thanks to all those who helped make LARC Field Day 2014 a great success!

Tom Land KA4HKK
Scott Livingston KC4SWL
David Bruner KI4KWT
Tanner Greer KK4SZI
Shawn Griffin KI4ZKP
Will King WB4Y
Art Mooney KI4KVY

Ted Manuel KL4FLY
Phil Crump KG4BCC
Josh Edwards KK4ZPV
Irv Kanode W4IWK
Lorenzo Kelly KE4NSW
Ro Maddox K4HRM
John Crowe N4LBX

Karl Bowman W4CHX
NC Section Manager

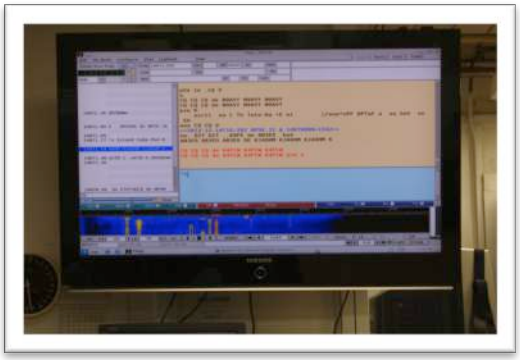
Paul Robinette KD4OZI
NC Asst District EC

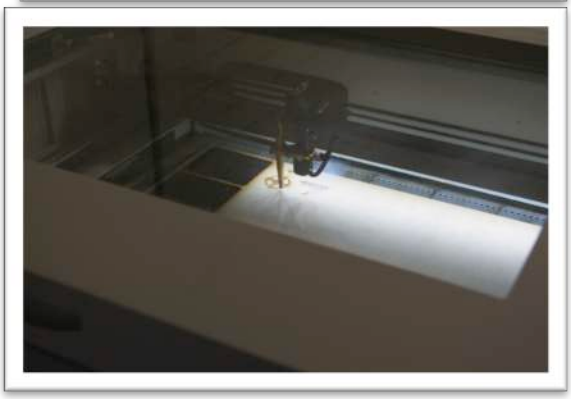
Foothills Community Workshop
Learn - Teach - Make

Open House a Success!

On Friday, May 30 and Saturday, May 31, Foothills Community Workshop held a public Open House on May 30 and 31. While visitors are welcome any time, the open house provided an opportunity to demonstrate the unique capabilities of FCW and to promote it within the community.

Visitors began their tour in the common area where the Amateur Radio station K4FCW is located. K4FCW has an ICOM 735 HF radio, an ICOM 706MKIIG HF/VHF/UHF radio and three antennas and is used FCW "hams" for CW, Phone and Digital modes. During the tour, digital output of Fldigi was sent to a 54" LCD TV mounted above the station.





Next to the ham station, adults and kids alike were fascinated as the 3D printer created various objects out of ABS plastic. Next to it was the Eggbot that will draw onto spherical objects; in this case, ping-pong balls, which the visitors could keep.

Across from the radio station is the Electronics bench with meters, oscilloscopes, function generators, power supplies and a surface mount PCB soldering and rework station. Also in the common area is a technical library with around 200 books, a small kitchenette, console game machines, a MAME arcade machine, and several computers. Kids enjoyed the MAME machine and the stingray robot roaming the floor.

Exiting the common area the tours looked at the classroom that can be set up for training of up to 16 persons. For the open house, the classroom contained food -- burgers, hotdogs and chips on Friday and ham, chicken and fixings on Saturday. After the classroom, the next stop was the railroad/model shop. Here is a 16'x22' HO scale model railroad consisting of several lines. Much of the scenery was made in-house and a table of the scenery making tools is also in the model shop. Besides entertaining both adults and kids, there was a special treat for kids as a Thomas the Train was in the mix.

Next was the machine area. The CNC mill and lathe were not demonstrated due to safety reasons, but in the woodworking area, a 4'x4' CNC wood router was cutting items using high-density foam. Also in the area were the usual woodworking machines - table saw, radial arm saw, scroll saw, band saw, wood lathe, jointer, and sander, as well as a smaller CNC router.

Finally, was a stop in the Lab, where the laser cutter was used to cut small gear demos out of wood, which the visitors could keep. Also on display were other items created by the laser cutter -- a wooden toy truck, a T-Rex, an eagle, and engraved marble and glass. In the lobby outside the lab was the "electric chair" created by FCW for a Fright Night display on Halloween.

Over 40 people attended the open house and two joined. Everyone had a great time.

Regular meetings are Tuesdays at 7PM and Saturdays at 3PM. Additional information can be found at http://foothillscommunityworkshop.org.

Quick & Easy Zip Cord Antenna

By Lowell Rieger NY4D

With summer here and road trips, camp outs, Field Day, and vacation cabins in the mix, it might be time for a light weight HF antenna that works well and takes advantage of whatever antenna supports "of convenience" you might encounter in your travels.

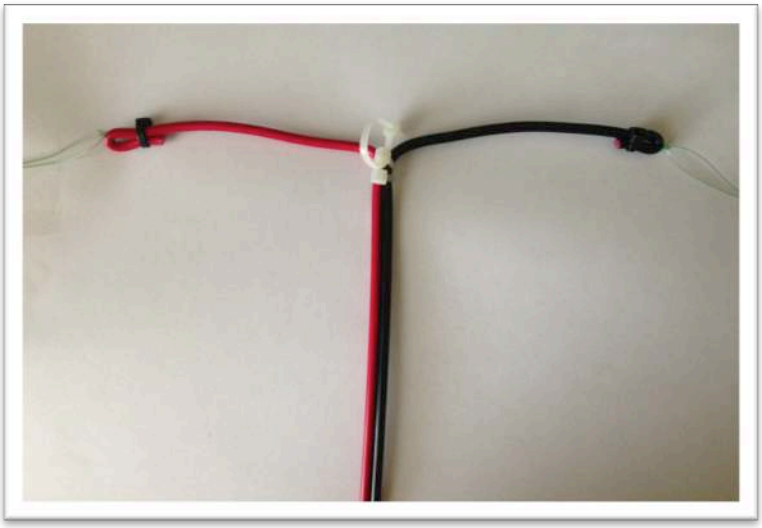
At almost any hardware, big box home store, or your local Radio Shack you will find what is called zip cord in varieties designed for lamp cord replacement, speaker wire, etc. With a 100-foot roll you can make an antenna or two to tote along and get on the air anywhere you can find a handy tree branch or other support to hang it from.

The basic concept is to unzip the zip cord into your dipole element lengths. Use the still zipped together line for the feed line. Secure the feed line to element junction with zip ties or an electrician's knot. Make sure to have a way to hang the middle and just tie the ends directly to nylon twine or fishing line to the end supports.

I generally use 16 or 18 gauge speaker cord. Avoid the very thin 20 to 24-gauge wire. A zip tie or two will be used on the antenna where it separates from the feed line. With another zip tie you can make a loop to hang the antenna from. Some thin nylon line to hang it with and to tie the ends with and you are good to go.

So let's make one. How about a version of the G5RV? From your 100-foot roll you will unzip 52 feet of wire. Wrap a zip tie or two where the two wires separate from the still zipped together line. And before you tighten that zip tie add another to serve as a loop to hang the antenna from if your location favors the inverted "V" approach. Tie some thin nylon line or some monofilament fishing line right to the ends of the antenna to stretch the ends out to your end supports.

Now we're left with 48 feet of feed line. You have two choices here. The first is to just leave it intact and run it to your antenna tuner to the balanced output terminals. Or you can cut the remaining line down to 30 feet or so, connect your coax there, and run that to your antenna tuner or to your rig if it has a built in tuner.



In the picture, the horizontals on each side are 52 feet each. The zip ties are in the center. The vertical section is the still zipped together zip cord, around 30 feet or so of it. The ends can be tied to whatever supports are available by tying the antenna ends directly to your nylon (a good insulator) line. This is shown as a horizontal antenna but it is more likely you will hang it as an inverted "V".

That's all there is to it. Does it work? Yes pretty much like any other G5RV. If you're a stickler you can trim the vertical drop for lowest SWR on 20 meters. In theory the length should be 25 feet or so due to the lower velocity factor of zip cord vs. ladder line, but that will have little effect on 40 and 80 so it may be best just to leave that longer length.

If you just want a single band antenna then use the standard dipole lengths for insulated wire in all the handbooks. But here's the trick for getting the feed line length right so you won't need a tuner. An electrical half wavelength of feed line will mirror the antenna impedance at the end of that half wave of feed. Figure that half wave section like this: 492 times .7 (velocity factor) divided by the frequency. So for 20 meters we would have 24.25 feet At that point you could attach 50 ohm coax and run it to the rig and should be very close to a match. Always best to start with a longer length and trim down however.

Keep in mind though that the velocity factor of whatever zip cord you buy could be noticeably different. ARRL has tested several kinds of wire that all come out close enough to a 70% velocity factor. So stick to the number 16 or 18 zip cord and you should be ok,

ARRL has also tested the loss of zip cord and found that it does have somewhat higher loss than say RG-58 cable. For that reason keep feed line lengths shorter than 50 feet if possible. This works out fine for 40-meter versions and of course the higher bands will be shorter. For 80 just use the G5RV version to keep the feed line length in the lower loss zone.

You can hang one of these antennas just about anywhere you can find a support. They are light, almost invisible, and will get you plenty of contacts if hung in the clear and as high off the ground as you can get them.

Even though these antennas aren't designed for permanent use I had a 20-meter version up for several years. It still worked fine when taken down but was starting to look a little ratty. The clear insulation of the wire I used was obviously not designed to withstand Georgia sunshine for long periods of time. But for a temporary antenna this won't be a worry.

If you build one let me know how you made yours and how it worked.

73 de NY4D

Editor's Note: Shortly after writing this article, Lowell suffered a heart attack and was hospitalized for quadruple bypass surgery. He is recovering nicely and can be reached at ny4dradio@gmail.com

Caldwell CERT Classes

Disaster Triage for CERT Teams was held on June 21 at Bethel Colony in Lenoir. IRV W4IWK attended the class taught by Kenneth Teague, Caldwell County Asst. Emergency Manager. At the end of the class, participants went home knowing how to do a preliminary assessment of injured persons and set priority cases for emergency response personnel as they arrived on-scene.

The CERT Core class, taught by Kenneth Teague was held on June 26, 27 and 28, but due to its conflict with Field Day 2014, LARC was not represented.

From The Last Meeting…

Attendees. Tom KA4HKK, Irv W4IWK, Tanner KK4SZI, Michelle KD4YTU, Ro K4HRM, Scott KC4SWL, Josh KK4ZPV, Shawn KI4ZKP, Phil KG4BCC and Jeff Owens (Guest).
Club Trailer. Scott KC4SWL reported on ARRL all risks equipment coverage and will continue to explore General Liability/Property Damage coverage for the Club.
Repeater Upgrade/Professional tower climber. Michelle KD4YTU will contact tower climber for cost and availability.
Website. Tanner KK4SZI reported the website N4LNR.COM is live. Report any problems to him.
Public Service. Tom KA4HKK noted that he, Ro K4HRM, Josh KK4ZPV and Ted KL4FLY worked the Rotary Cycle to Serve Bike Ride on May 10 and that the Rotary requested that we support their event again next year. Tom to check into participating in the Life Safety Fair in September. Agreed to participate in Blackberry Festival on July 12 with Tom KA4HKK and Ro K4HRM volunteering. Other volunteers are encouraged.
Field Day 2014. Discussed final plans for this event.
Training. CERT Disaster Triage scheduled June 21 with Irv W4IWK. CERT Core Training scheduled June 26-28.

Did You Know? ARRL has a new online resource that allows users to take randomly generated practice exams using questions from the actual examination question pool. ARRL Exam Review for Ham Radio™ is *free*, and users do *not* need to be ARRL members.

Become a LARC Member
Renew your LARC Membership

Pay your 2014 dues in person to the Treasurer or by mail
At the LARC address shown on Page 1

Full Member $15/year Family Member $25/year
Associate Member $10/year Family Associate $15/year
Life 10 times/year

Amateur Radio License Class Scheduled

Foothills Community Workshop will conduct an Amateur Radio - Technician license prep class on three consecutive Friday evenings -- July 18, July 25, and August 1 from 6:00 to 8:00 PM. Instruction will use the new question pool and include regulations, operating methods, station setup, antennas, radio principles, and basic electronics. The class is free and open to the public.

On Friday August 8, There will be an optional Q&A session on Friday, August 8, from 6:00 to 8:00 PM for anyone wishing clarification on any part of the Technician, General, or Extra license exam. This session is not a training class and will be driven by the needs of those who attend.

License exams will be held on Saturday, August 9, starting at 12 noon. All levels will be tested and the exam fee is $10. The exams are open to anyone wishing to obtain or upgrade an Amateur Radio license.

FCW is located in the Old Shuford Mill building in Granite Falls NC. For directions and more information refer to http://foothillscommunityworkshop.org or contact Michelle Suddreth at kd4ytu@arrl.net or 828-754-5002.

LARC 2014 Officers

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KF4FLY

Tom Land
Vice President
KA4HKK

Irv Kanode
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W4IWK

Phil Crump
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KG4BCC

Editor For A Final

As I write this column, I am thinking of the great weekend that just ended as LARC joined thousands of clubs and individuals in Field Day 2014. Tanner KK4SZI said it best in his post on N4LRN.com, "It was really amazing to be able to spend time with some good friends and have a great time laughing, eating, and making contacts all around the US and the world."

Field Day 2014 was my third Field Day event with LARC. My first exposure to the Club was Field Day 2010. I had just temporarily relocated to NC from FL earlier in June 2010 and looked up the nearest Field Day to the County I would soon call home. I recall very vividly the drive to locate the encampment. It was steamy hot as I drove the winding roads of rural Collettsville looking for Key Kraft Place, a road that quickly became a narrow two-rut path heading up a mountain. Several times before I reached the clearing in the woods on a path no wider than my truck, looking straight-down sheer cliffs, I thought I heard banjo music!

In the clearing was an open shed with a couple picnic tables and two amateur radio operators – Tom KA4HKK on CW and Scott KC4SWL on HF. Jerry AD4JG and Floyd AD4FK were also there. I introduced myself and got the grand tour of the mountain top radio setup. All were cordial and invited me to take a turn on HF, but I still felt like a duck out of water. Even as I related my experience as an EC, AEC, County EOC volunteer, Red Cross field disaster director, FEMA CERT instructor, and Intel liaison at the FL State EOC, I knew we were not on the same frequency. Later in the afternoon, about 6-8 others appeared in the clearing bearing hot dogs and other goodies for the traditional Field Day feast. So went Field Day 2010.

But Field Day 2014 was different. There was excitement and enthusiasm as antennas were erected and stations setup. Everyone was helping everyone get ready. A lot of smiles, laughs, and high 5's when things were clicking as they should, and only a shrug and let's find a solution then things went wrong.

I'm sure that those amateurs at Field Day 2010 had that same excitement and enthusiasm, and I was just an outsider feeling out of place. But, this year I belonged; I was invested in Field Day 2014 being a success. I felt like that old amateur radio operator I used to be was back. Thank you to all that made my day!

Send comments concerning the LARC NEWSLETTER
to Ro K4HRM hrmaddox@nettally.com
Suggestions and your articles are appreciated.