

April, 2020

LARC NEWS & VIEWS

N4LNR



Lenoir Amateur Radio Club Newsletter

Events

LARC Morse Code Class

Mon. May 09, 7:30 pm
Webex Online Meeting

Rotary Cycle To Serve

Sat. May. 09 (**Canceled**)

Contest University

Thu. May 14, 8:45 am
Zoom Online Meeting
Dayton, OH
www.contestuniversity.com

Next LARC Meeting

Thu. May 14, 7:00 pm
Webex Online Meeting

Durham Hamfest

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



NC QSO Party Results

The Lenoir Amateur Radio Club participated in the NC-QSO-Party March 1, 2020. Here are the results. We scored 60,600 points which included 250 bonus points. With 348 QSO's, we placed 5th in the Category of Multi-Operator / In-State / Mixed Mode / Low Power. We contacted 44 counties! Way to go LARC! Good Job! You can view all the results here at the website <http://ncqsoparty.org/results/>

North Carolina QSO Party 2020									
Call	QTH	Category	Score	QSO's	Counties	SL/Prov	Mults	Bonus	
MULTIOP/ IN-STATE/ MIXED/ LOW POWER									
K4MN	CUM	MULTI-IN-MIXED-LP	150,365	755	42	41	83	550	Cape Fear Amateur Radio Society
W4YK	HEN	MULTI-IN-MIXED-LP	77,458	403	46	41	87	550	Blue Ridge Amateur Radio Club
W4MIS	ALE	MULTI-IN-MIXED-LP	73,954	417	38	45	83	250	Misfit Amateur Radio Club
NC4OC	CNS	MULTI-IN-MIXED-LP	64,485	329	39	40	79	100	Onslow Amateur Radio Club
N4LNR	CAL	MULTI-IN-MIXED-LP	60,600	348	44	41	85	250	Lenoir Amateur Radio Club
N4BK	NEW	MULTI-IN-MIXED-LP	45,720	266	26	48	72	0	Battleship North Carolina
W4MGT	WAK	MULTI-IN-MIXED-LP	21,922	144	28	28	58	250	Jennkins Family c/o Steve Jenkins
			7	2,712					

Online Classes

Speaking of contests, as amateur radio operators we are bound to participate in a few contests throughout our lives. Whether you are an avid contester or not, here is your opportunity to gain knowledge in the fine art of ham radio contesting. Since the Dayton Hamfest in Ohio have been canceled this year, the organization is conducting a *free* online class called Contest University via Zoom internet meeting. This is a class normally given to hamfest attendees who register and pay a fee. It will be on *May 14th* at 8:45 am. Please register at www.contestuniversity.com if you want to participate.

Dah Dit Dah Dit Dah Dah Dit Dah, Dah Dit Dah Dit Dah Dah Dit Da. What's the meaning of that sound? That is Morse Code, and the ham radio mode of communication known as CW. There will be a class starting on *Monday May 9th* via Webex online meeting. If you have not been contacted about this class please contact Gary (K3OS). Email invitations will be sent to LARC members. We will meet once a week on Mondays and the class will last a few weeks.

Attention!! All Technician level operators! Do you want to upgrade your license? Coming soon! A class for General exam study. The time and date is to be announced in the near future.

The Sleeve Dipole Antenna

By Buck McDaniel (N4PGW)

The sleeve dipole (SD) antenna is one option for a multi-band antenna that does not require an antenna tuner. The original design was a tube cut to a higher frequency band that covered a dipole for a lower frequency band. Today, there are several variations and one of them can cover at least three bands.

The Common Dipole Antenna



The sleeve dipole starts with a common dipole. The dipole antenna is a wire or tube (the pole) that is divided in the center to attach a 50 ohm feed line to the radio. The common formula that is used to calculate the length of the antenna is $468/f = l$, where f is the center frequency and l is the length of the antenna in feet. The "468" works for wire antennas for HF, but, as the diameter of the poles increases, the required length will decrease. The higher you go in frequency, the greater the affect will be on the length of the pole.

The Original Sleeve Dipole



The original sleeve dipole was made by adding a tube, or sleeve, over the wire dipole. The sleeve is trimmed to match the center frequency of one band and the wire is trimmed to match the center frequency of a lower band.

The Open Sleeve Dipole



The open sleeve dipole uses two wires instead of a tube. It works the same, but the wires are lighter and more practical to use on lower frequencies. Like the original sleeve dipole, the sleeve and dipole never come in contact with each other and the sleeve is not connected to the feed line.

The Single Sleeve Dipole



The single sleeve dipole is an open sleeve dipole that uses only one sleeve.

The Tri-Band Sleeve Dipole



The tri-band sleeve dipole is an open sleeve dipole with each sleeve cut for a different band.

Building the Sleeve Dipole

Here are a few things you will want to keep in mind when building the sleeve dipole.

Element Length

If you start with a dipole that is cut for a specific frequency, when you add the sleeve, it gives that portion of the antenna an electrically wider diameter. This will cause the resonant frequency of the dipole to be a little lower. To keep the same resonant frequency, you will need to reduce the length of the dipole.

Antenna Bandwidth

Because the sleeve increases the diameter of the elements, the antenna covers a wider bandwidth. A single-band wire dipole on 80 and 40 meters will only cover a portion of either band. But, when you add a sleeve to these dipoles, the bandwidth that the antenna covers increases. By adding sleeves for 40 and/or 60 meters, you could increase the bandwidth of an 80 meter half-wave to cover most, if not all, of the 80 meter band. Only the lower bands get the wider bandwidth advantage. A 40 meter element adds to the diameter of the 80 meter antenna, but the 80 meter element does not radiate on 40 meters so it does not provide much, if any extra diameter to the 40 meter band.

Alternate Driven Elements

The original Sleeve Dipole required the driven element, the dipole, to be the lower frequency. But, with an open sleeve, any element can be the driven element but if three elements are used, the driven element must be in the middle.

For example, if you make a tri-band for 80, 60 and 40 meters, the driven element can be any one of the three elements as long as it is in the center. For example, you could put a 40 meter dipole between the 80 and 60 meter elements or the 60 meter driven element could be between the 40 and 80 ½ wave wires.

Tuning the Open Sleeve Dipole

When tuning an open sleeve dipole, you need to tune starting with the higher frequency elements first and work your way down to the lower frequency elements. The longer elements lengths are affected more by the shorter elements than the shorter elements are by the longer.

About the Author:

Buck McDaniel

N4PGW

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One of my favorite parts of Ham Radio is antennas. I love learning about them and building them. I have been building antennas for short wave listening, CB and ham radio and, especially, stealth antennas, since 1974 when I got my first short wave receiver and soon after when I got my first CB radio.



On Air Etiquettes

Whether we are a new amateur radio operator or a seasoned hobbyist, when we get on the air, sometimes we don't pay attention to what we are actually saying. We tend to forget or neglect certain etiquettes.

Here are some guidelines to follow:

- Take the time to listen to the repeaters.
- Speak like you were talking to someone face to face. Key the mike, AND THEN start to talk. Don't start speaking as you key the mike. Repeaters have a short delay before transmitting. If you start speaking too soon, your first few words may not be heard. Make sure you have finished talking before you un-key the mike. Give your call sign clearly, and slowly.
- Use English and avoid jargon as much as possible. Q-codes are really a Morse code short hand. They have their place when voice communications are marginal. Say, "My wife" rather than the "xyl".
- Avoid falling into the habit of using cute-isms: "Roger Roger", "QSL on that"...
- Avoid phonetics unless you are asked to do so. When using phonetics, use standard phonetics. "Alpha, Bravo, Charlie"... etc.
- If you are listening and would like to have a conversation, just give your call sign. You can add "monitoring", or "listening". Using the term "CQ" on a repeater is generally discouraged.
- When you wish to communicate on a frequency, listen for a while before talking, there may be a conversation in progress.
- If you want to join into a conversation, just give your call between transmissions rather than using the term "Break Break". You will be acknowledged and allowed into the conversation.
- If you want to talk to a certain person, call them using their call sign once or twice, then your call sign.

- In an emergency, give your call and say "emergency" rather than using "Break Break". Saying "emergency" will make it clear why you are interrupting and it will also get more attention from those just listening.

- Make sure you ID (state your call sign) according to the rules, but avoid over ID'ing. If you are using a repeater system, the repeater has a timer so that it can ID every 10 minutes. Whenever you hear the repeater ID that is a good time to send yours. There is no need to send your call sign, then say "For ID". Your call sign IS your ID.

- It is generally frowned upon to "Ker-chunk" a repeater. That means keying up your radio for just a moment so that the repeater transmits, usually you hear the "courtesy beep" afterwards. This is also annoying to the repeater owners and control operators. If you want to make sure you are transmitting okay, make sure you give your call sign.

There are many helpful websites on ham radio etiquettes. This information can be found online at the website <http://wrarc.org/wp-content/uploads/HAMRADIOETIQUETTE.pdf>

These are just a few pointers to help you conduct yourself when on air. So have fun but remember to be aware of your conversation in a "Rag chew" session. Anyone and everyone in the world may be listening.



Committee Meeting

On April 23rd one of LARC's committees held an online meeting. Once again the Webex video conferencing application proved to be a successful tool for such events. The committee members were able to effectively discuss and share information, as well as socialize and chit chat.



Looks like LARC members will be using Webex for our future meetings until we all are able to meet again in person.



SKYWARN

Skywarn is an National Weather Service (NWS) entity invented-by and operated-by NOAA/NWS. Skywarn encompasses a wide range of participants, one of which is Amateur Radio.

For LARC members interested in participating with the Caldwell County Severe Weathernet, it is highly recommended that you take the training to be an efficient spotter.

To become a Skywarn Spotter all you need to do is take a short course in Storm Spotting. These courses are offered online and locally for free by the National Weather Service. The National Weather Service in Greenville / Spartanburg requires that any person wishing to become Skywarn Spotter Certified to be at least 18 years of age.

Take the course online at:

https://www.meted.ucar.edu/training_course.php?id=23



A Ham's Life

We asked a few of our fellow hams to show us what their life is like currently. What are they doing and how they are coping during this time of world pandemic and social distancing? These are some of the photos they took of their personal world.



Ham Radio Operators....Experts in Social Distancing for Over 100 Years.

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

Individual (Full Member)\$15 / Year

Family \$25/ Year

Associate \$10 / Year

Associate Family \$15 / Year

Ask about our Lifetime 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.

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LARC's Antenna Trailer, Then 2014 and Now 2020

