



SHORT SKIP

Volume 63 Issue 4

April 2015

From the Oval Office

by Mark, LCARC Vice President

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REPEATERS

Freq	Location
147.000	Merrillville
147.240	St. John
442.075	Merrillville

All Lake County ARC Repeaters are open to all amateurs. All repeaters must have a PL of 131.8 set in order to access.



It looks like springtime is finally here! It's starting to become very busy time of year. I had the opportunity to talk to our ARRL Indiana Section manager Joseph, K9RFZ at the Laporte hamfest. He is looking forward to having the opportunity to come out from Fort Wayne to speak to us in June. He wants to meet Northwest Indiana hams and learn more about our club and activities.

On March 13th, John W9WY and myself had the opportunity to visit the 147.000 and 442.075 repeater site. All the equipment was examined, we posted our renewed W9LJ license, and we also upgraded the firmware on the controller. Upgrading the firmware will give us the ability to have the controller automatically reboot every night. It seems like when we manually reboot the controller, it resolves some issues. We are also evaluating if both lightning arrestors should be replaced.

At our March club meeting, we had a great meeting with eighteen attendees. With Radio Shack closing stores, we had a discussion on places where we can obtain our parts from in the future. Nick, W9UM did a great job on giving a presentation on how the ARRL official observer program works and its benefits along with fielding several questions from the audience. Our show and tell topic was, bring your smallest HT. It looks like Kerry KB9ORH, had the smallest HT, a Yaesu VX-2. Bill N9QLS and myself brought Standard C508's, which was the next smallest.

Our show and tell topic for April will be desoldering tools. At the suggestion of John WA9FGC, we will have a discussion on HT selection specifically what you should look for when selecting a new ht. Stan, W4SV is going to give a presentation on QCWA and QCWA Chapter 36. Definitely another meeting not to miss.

The LCARC will be participating in the Indiana QSO party on Saturday, May 2nd. We will be setting up at 10am, with the contest starting at 11am. We anticipate on operating until late afternoon. There will be a signup sheet at the April meeting or you may email me at mark@k9mq.com, or you can sign up at our web site, w9lj.org and I will add you to the list. All are welcome to attend and operate.

Just a reminder with springtime here, severe weather season is upon us. When need there are Skywarn nets on 146.685- and 146.700- both with a 131.8 pl.

March Contest Winner, Yaesu VX-2

- Frequency range: TX: 144-148 / 430-450 MHz
- RX: 0.5-999 MHz (cellular blocked in the US)
- Mode: TX: FM
- RX: AM/FM/WFM
- RF Power output: 1.5-3 / 1-2 W
- Image rejection: N/A
- Voltage: 3.2-7 VDC
- Impedance: 50 ohms, SMA
- Dimensions (W*H*D): 47*81*23 mm
- Weight: 182 gr (with battery and antenna)
- Other: 5000 memories. CTCSS, DCS, DTMF & ARTS



Minutes

March 13, 2015

Lake County Amateur Radio Club General Membership Meeting
March 13, 2015

Meeting called to order at 7:30PM

- Introductions made 16 people attended the meeting.
- Minutes from February meeting was read by Russ. Mark made the motion to accept the minutes as corrected. Motion carried.
- Treasury's report was read by Jim
- Motion made by Mark to accept the treasury's report as read, motion carried.

Reports

Repeater Fence is still ok. The DTMF all components are bad. Firmware on controller for repeater has been upgraded so controller can be rebooted every night.

DX report by Nick. In 5 day Eritrea DX expedition E30FB is coming on and N. Korea will be coming on 2016 January and operate CW only.

NW Indiana Sky Warn Spotter class at Newton county EMA. with a Sky Warn meeting on March 28 at Lake of 4 seasons Fire Dept. Lowell Marathon will be April 26 with race starting at 7:30AM with a course change expected. Will have a signup at next months meeting.

Races report Will get the EMA trailer for the Indiana QSO party.

Red Cross Report nothing to report.

Net Report Mark has forwarded the list of people checking in for the net to Russ to Keep track of members checking in for the point system in place. The point system will keep track of members precipitating in club events. The member with the most points will get a free years membership.

Programs

Tonight Nick N9UM ARRL Official Observers

- April Stan W4SV from Porter County will talk about QCWA and chapter 36
- May Mark and John with talk about DMR
- June Section Manager Joseph K9RFZ
- September Ben about foxhunting with SDR tuning USB sticks.

Other presentations are also in the works.

Next event will be the Indiana QSO party Sat May 2, with other events as Field Day INPOTA at Dunes State Park. Discussion about EMA trailer getting setup

Survey for change of meeting from Wayne and found nothing in survey suggested changing the meeting nights.

New Business

- Radio Shack closings and possible replacement stores for parts. Several mail order stores were listed.
- Show and tell smallest HT was from Kerry a Yeasu VX-2.
- Next months show and tell is desoldering tools.
- Program was from Nick on ARRL Official Observers

Meeting adjourned at 9:01PM By Mark.

Program Schedule - April

- Show and Tell: Desoldering tools
- Discussion: What to look for when buying an HT
- Program: QCWA/QCWA Chapter 36 - Stan, W4SV

Skywarn and Marathons

By Carter Garcia, KC9YGU



Spring has sprung (kind of)! Severe weather is right around the corner and this month, the spotters of NWI Skywarn will be focusing on communications. Below you will find the different methods of communication we have used.

HAM Radio is the best and most reliable form of communication storm spotters have access to. With HAM radio, spotters can talk directly to NWS, who operate the call WX9LOT. Over ½ of the NWI S members are licensed HAM's. NWIS runs a Skywarn NET, monitored by NWS, on 146.685 (pl131.8)

Zello, a mobile phone push-to-talk app, is another popular tool among storm spotters. Anyone can monitor our channel by searching NW INDIANA SPOTTERS. Although convenient, Zello proved it is still very unreliable on June 30, 2015 after the entire program locked our spotters out during a tornado warning.

NWS Chat is a relatively new tool from NWS. Designed exclusively for Emergency Managers, Media, Police/Fire Dept.'s and NET Control Operators, NWS Chat offers an internet based chat room to send storm and damage reports to NWS. Users can also communicate with the meteorologists on staff 24/7. The NET Controllers for NWI Skywarn as well as South Suburban Skywarn have access to NWS Chat.

HAM Radio Operators from NWI Skywarn and the LCARC will head down to the Lowell Marathon on April 26. Volunteers will need to be on site no later than 6:30AM. More information, including the sign-up form will be sent out soon! Contact Carter, KC9YGU with any questions: carter.nwiskywarn@gmail.com

Listen to Carter's interview on WLJE Indiana 105 as he talks about amateur radio, SKYWARN and emergency communications. <https://soundcloud.com/regionnewsteam/03-17-15-region-kid-carter-garcia-talks-nw-indiana-skywarn>. You can also find out about the group at their website which is: www.nwispotters.org/

Bell Labs Prove Existence of Dark Suckers!

For years it has been believed that electric bulbs emitted light. However, recent information from Bell Labs has proven otherwise. Electric bulbs don't emit light; they suck dark. Thus they now call these bulbs dark suckers. The dark sucker theory, according to a spokesman from the Labs, proves the existence of dark, that dark has mass heavier than that of light, and that dark is faster than light.

The basis of the dark sucker theory is that electric bulbs suck dark. Take for example the dark suckers in the room where you are. There is less dark right next to them than there is elsewhere. The larger the dark sucker, the greater its capacity to suck dark. Dark suckers in a parking lot have a much greater capacity than the ones in this room.

As with all things, dark suckers don't last forever. Once they are full of dark, they can no longer suck. This is proven by the black spot on a full dark sucker. A new candle has a white wick. You will notice that after the first use, the wick turns black, representing all the dark which has been sucked into it. If you hold a pencil next to the wick of an operating candle, the tip will turn black because it got in the path of the dark flowing into the candle. Unfortunately, these primitive dark suckers have a very limited range.

There are also portable dark suckers. The bulbs in these can't handle all of the dark by themselves, and must be aided by a dark storage unit. When the dark storage unit is full, it must be either emptied or replaced before the portable dark sucker can operate again.

Dark has mass. When dark goes into a dark sucker, friction from this mass generates heat. Thus it is not wise to touch an operating dark sucker. Candles present a special problem, as the dark must travel in the solid wick instead of through glass. This generates a great amount of heat. Thus it can be very dangerous to touch an operating candle.

Dark is also heavier than light. If you swim deeper and deeper, you notice it gets darker and darker. When you reach a depth of approximately fifty feet, you are in total darkness. This is because the heavier dark sinks to the bottom of the lake and the lighter light floats to the top.

The immense power of dark can be utilized to a man's advantage. We can collect the dark that has settled to the bottom of lakes and push it through turbines, which generates electricity and helps push it to the ocean where it may be safely stored. Prior to turbines, it was much more difficult to get dark from rivers and lakes to the ocean. The Indians recognized this problem and tried to solve it. When on a river in a canoe traveling in the same direction as the flow of dark, they paddled slowly, so as not to stop the flow of dark, but when they traveled against the flow of dark, they paddled quickly so as to help push the dark along its way.

Finally, we must prove that dark is faster than light. If you stand in an illuminated room in front of a closed, dark closet, then slowly open the door, you would see the light slowly enter the closet, but since the dark is so fast, you would not be able to see the dark leave the closet.

In conclusion, Bell Labs stated that dark suckers make all our lives much easier. So the next time you look at an electric light bulb, remember that it is indeed a dark sucker.

Membership forms can also be downloaded from our web site at www.w9lj.org. If you download the file from the web you can use your computer to fill in the blanks (makes our secretary happy) and then print the form with your information filled in.

Lake County Amateur Radio Club Membership Application



Please complete this form and return (address below) with your dues. Make all checks payable to LAKE COUNTY ARC. You may also return this application at one of our club meetings, held the 2nd Friday of each month at the Lake Co Dept of Homeland Security Office, 2900 W 93rd Ave, Crown Point, IN.

Lake County ARC -- PO Box 90 -- Crown Point, IN 46308-0090

Name	Call	License Class	ARRL Member
<input type="text"/>	<input type="text"/>		
Street Address			
<input type="text"/>			
City	State	Zip code	
<input type="text"/>		<input type="text"/>	
E-mail address	Phone number		
<input type="text"/>	<input type="text"/>		

Family Members covered by membership (living with you)

DUES ENCLOSED (please choose)

- Full (\$20) Family (\$25)
 Associate -- Non Ham (\$10)

Name	Call	E-mail address	License Class
<input type="text"/>	<input type="text"/>	<input type="text"/>	
Name	Call	E-mail address	License Class
<input type="text"/>	<input type="text"/>	<input type="text"/>	

DMR by Mark, K9MQ

It's been another busy month for DMR in Chicagoland and Indiana. Tony, W9AMT had the Hoosier DMR demo repeater setup at the Laporte hamfest and the Wabash Valley hamfest in Brazil. He also gave a presentation to the Indianapolis Radio Club. Northwest Indiana gained coverage from a second DMR repeater this month.

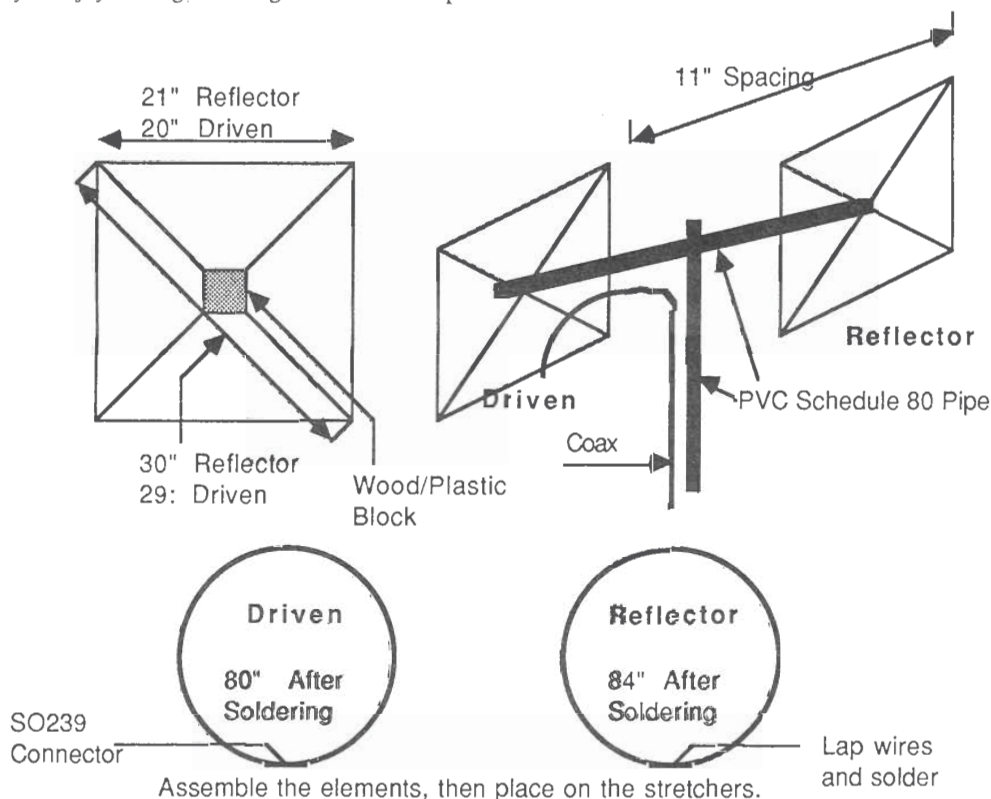
The AA9VI Northbrook, IL DMR repeater has been moved to a high profile site in downtown Chicago as part of the DMR-MARC network. I have been able to access the system reliably from inside my home with the rubber duck along with great mobile coverage. Now that Northwest Indiana has coverage from two wide area DMR repeaters, roaming can now be setup on your radio. When roaming is setup, your radio will automatically select the stronger repeater.

The KC9CFM DMR repeater in Southern Indiana will be joining the DCI network in the near future. Closer to home, in the near future the KC9YCZ DMR repeater in Mishawaka will be coming online and joining the DCI network. Mishawaka will be a high profile site at over 600ft and should provide coverage into southwestern Michigan and Laporte County.

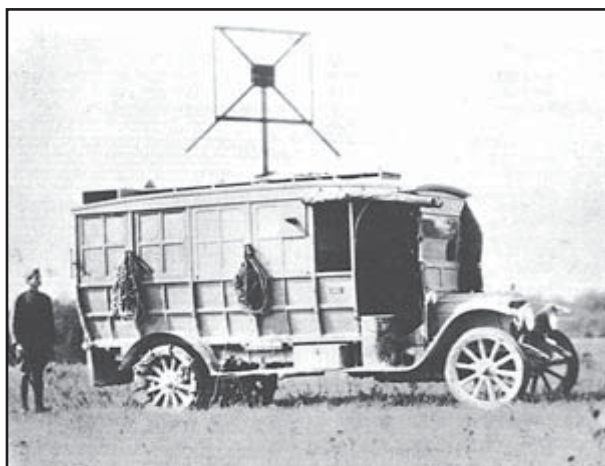
Build a Fox Hunter's Quad

John, W9WY from an OLD issue of Short Skip

January is not a month for hunting the fox, rather it is a month for preparing equipment with which to hunt the fox. With that in mind, we present one of the more successful antennas to hit the foxhunting scene. The quad pictured below is the result of much effort on the part of Charlie, WD9FIG. It is so popular with the Lake County crowd that it is the **only** antenna used. Most of the gang agree that this antenna is the only way to go as it is more immune to reflections than the typical yagi. We hope that you enjoy making and using the fox hunter's quad.



- 1) Pre-Stretch braided wire (lock one end into a vise and pull the other end tight)
- 2) The full wave length (on a quad) is derived from the formula $\frac{984}{\text{Freq(mHZ)}}$
- 3) The reflector is 5% longer than the driven elements.
- 4) Solid wire could be substituted for the elements.
- 5) Horizontal polarization is with the feed point at the bottom.
- 6) Vertical polarization is with the feed point at either side.
- 7) Center piece is wood or plastic. Spreaders are fibergals rods



No, the vehicle on the left is NOT my Tahoe, but "back in the day" there was a group of really dedicated foxhunters from across the line in Illinois who used to join us. These guys would hunt most every weekend somewhere and YES one of the drilled about a 3/4 inch hole in the roof of his 4x4 for the mast of his quad and used the Armstrong method to rotate it!

While I prefer antennas in the roof, I usually only use the Motorola NMO mounts. Anyway, other than the quad shown above a basic fox hunting kit should include an attenuator. This is a device which REDUCES the receive signal being received by the antenna.

The closer one gets to the fox, the stronger the signal and before long the receive S-Meter is pinned so we need to reduce the signal so the S-meter can again function.

There are some more items and strategies needed so keep posted as to our upcoming programs and be sure to attend the one on foxhunting. -- ed.

FOR SALE!

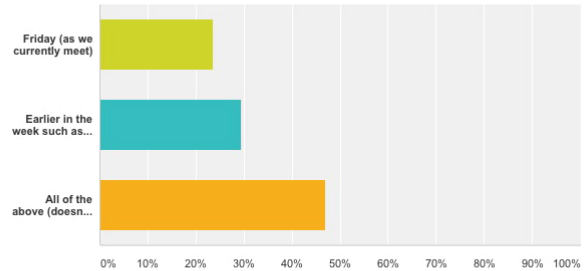


For Sale: Heathkit DX-60A Transmitter. 10-80M (excluding WARC). Includes assembly manual. There are some signs of wear, but overall the transmitter is in good shape. The transmitter worked when I first acquired it. I'm unable to fully test it at this time, but the tubes lit up. \$60, Sold As-Is. mark@k9mq.com

RESULTS OF SURVEY ON BEST DAY FOR CLUB MEETINGS

What day would make you more likely to be able to attend an LCARC monthly club meeting?

Answered: 17 Skipped: 0



Answer Choices	Responses
Friday (as we currently meet)	23.53% 4
Earlier in the week such as a Monday or Tuesday	29.41% 5
All of the above (doesn't matter, I'm flexible either way)	47.06% 8
Total	17

Road Test - Connect Systems CS-700

by Mark, K9MQ



Connect Systems Incorporated (CSI) has been around for over thirty years specializing in autopatches, repeater controllers, and other accessories. In 2013, they introduced the CS-700 UHF DMR handheld to the commercial market. It just happened that there were some hams in some of the two-way shops that purchased these radios. The hams decided to give the CS-700 a try on the DMR-MARC network. They discovered that it was a great entry level radio for the price. After this discovery, sales of the CS-700 (UHF) and the CS-701 (VHF) skyrocketed and it quickly became one of the most heard radios on the DMR-MARC network. It really helped boost activity on the network and the popularity with DMR. CSI's business quickly shifted from being mostly commercial to now mostly amateur.

The CS-700 is a commercial HT and is programmed as such. There is no keypad programming. It operates DMR and Analog 12.5/25khz FM between 400-470mhz with a maximum of four watts and a 1000 programmable channels.

For the price, the radio offers great performance. I have experimented with replacing the stock rubber duck antenna with a lon-

ger "higher gain" antenna and have found that the stock antenna works just as good. The most common issue currently with this radio, is the transmit audio is sometimes too low depending on the radio and end user.

I have found using a Motorola speaker microphone (HM-N9030A) has improved the audio gain and quality on this radio. CSI is currently working on new firmware and programming software that will allow the microphone audio gain to be properly adjusted. New CS-700's will receive the new firmware and they are working on trying to make it available for the older CS-700's. The programming software can be improved, but that will be addressed with the new firmware. If anyone does a buy a CS-700, contact me and I will send you a codeplug file with all of the Chicagoland and Indiana repeaters in it and ready to go. This will save you a lot of time.

For the most hardcore of DMR enthusiasts, you will be able to send text messages, but the radio is unable to support roaming.

Connect Systems is very customer service oriented. Almost every issue that I have ever heard of has been quickly resolved to the customers' satisfaction. The radio currently is \$199 plus \$5 for the programming cable. The programming software is free on the website. They also sell some accessories for the CS700 at a very reasonable price.

To order call 818-889-0503 and ask for Erin, Chris, or Jerry. They do not offer online ordering. <http://www.connectsystems.com>

Spring time is time to clean up the shack. Contact John, W9WY to put an add in short skip. Ads are FREE to members.