



# SHORT SKIP

Volume 63 Issue 9

September 2015

## From the Oval Office

by Marv, WV9O, LCARC President

### OFFICERS

Marv, WV9O, President  
 Mark, K9MQ, V President  
 Jim, KE9FX, Treasurer  
 Rus, KB9HO, Secretary

### BOARD OF DIRECTORS

Bill Young, N9QLS  
 John Gianotti, W9WY  
 Ken Brown, KE9TC  
 Carter Garcia, KC9YGU  
 Bob, WD9FNY  
 Russ, KB9HO

### OTHERS

Red Cross Liaison  
 Bill, N9QLS  
 Trustee, Marv, WV9O  
 Newsletter Editor and  
 Webmaster, John, W9WY

## 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.



Our thanks to Brent Walls, N9BA, for driving up from Indianapolis and speaking to us about the Amateur Radio Emergency Service (ARES). While he is involved with Hoosier DMR, he is also the ARRL Indiana Section Emergency Coordinator and spoke to us about ARES. The second part of our program was programming your CS-700/MD-380 DMR HT by Mark k9MQ. Brent and Mark did a super job, thanks to Brent and Mark for great programs!

The next club special event is coming Indiana Parks on the Air (IPOTA) at the Indiana Dunes State Park at the Tremont Shelter on September 12th. This will be the club picnic; the club will furnish hamburgers and hot dogs so bring a covered dish. So bring the family and make it a great day enjoying one of the premier state parks of Indiana and operating IPOTA!

I have been monitoring the club repeaters for the last several months and have not heard much activity on them. We are looking at trying to increase their usage. What can we do improve our repeater systems? The growth of DMR in the ham community is remarkable. To improve the use of the repeaters the club is looking at change the 442.075 MHz repeater DMR. The club has started a repeater fund and is looking for donations to make the change. The club is looking at taking the 147.24 repeater off the air. With the new construction at Lake Central High School the performance of the repeater has diminished. Should we give up the pair or try to find a new location? Please let me know how you feel on the changes, [wv9o@arrl.net](mailto:wv9o@arrl.net). We will be discussing this and voting at the September meeting.

### Upcoming programs:

September: Ben, KC9UNS on Foxhunting with a \$20 SDR TV Tuner Dongle  
 October: Nick, W9UM DXCC Program

Looks like another busy meeting see you there!  
 From the Oval Office, 73 Marv WV9O

## No One, Anywhere, Having Good VHF QSOs

By WBØRUR, on the scene

GRAIN HARVEST, Idaho — A new study by the National Radio Retransmission Legion indicates that no ham is having an actual conversation on any frequency in the 2 meter band.

Jonny “Doc” Doolittle of rural Grain Harvest, Idaho, says it’s not just poor propagation that is to blame.

“We all bought one of those low-cost Chinese handie-talkies,” says the potato farmer via telephone from his home just outside of LaCrosse. “Now all we hear on the local repeater is every 6th word with lots of garbled transmissions and noise. Those radios are feature packed with everything except a good receiver. Oh, there’s the occasional complete sentence...but nothing you could even vaguely describe as a full conversation.”

As a result of the study, the North American VHF Repeater Owners Association is considering a resolution to “power-down” all repeaters between the hours of 7 a.m. and Midnight since no one is able to make radio contact anyway.

### HamHijinks.com

# Minutes

August 14, 2015

Lake County Amateur Radio Club Regular Meeting  
August 14, 2015

Meeting called to order at 7:30PM

Introductions with 20 in attendance

Suspend business part of meeting for 2 programs so no treasury's report of minutes from last meeting but are available to read.

Items brought up for discussion and review by members are taking down the 147.240 repeater due to construction at school and lack of use. Will have a vote at meeting in September and also will be put in Short Skip to inform members.

The next item is setting up a fund for a DMR repeater for the UHF repeater. If 1/2 of the price for a DMR repeater is made by club members the Club will pay the rest for a DMR repeater for the 450MHZ repeater.

The last item is INPOTA and a club picnic at the Dunes State Park on September 12th. We will be setting up at 10:00AM.

The first Program is by Brent Walls N9BA the Section Emergency Coordinator.

The Second program is by Mark about setting up code plugs for DMR radios.

Meeting Adjourned

## Indiana Parks on the air (INPOTA) Event



Club Special Event: Indiana Parks on the Air (IPOTA)

Where: Indiana Dunes State Park , Tremont Shelter

When: September 12th.

This will be the club picnic; the club will furnish hamburgers and hot dogs. Bring a covered dish. Bring the family and make it a great day enjoying one of the premier state parks of Indiana and operating IPOTA!

## ARRL Files More "Grow Light" Ballast Complaints

*from ARRL Web*

The ARRL has filed three more complaints with the FCC, urging its Enforcement Bureau to investigate and initiate enforcement proceedings to halt the marketing and retail sale of certain RF lighting devices typically known as "grow light" ballasts, which, it said, violate FCC Part 18 rules. The largely identical complaints zeroed in on three specific products: The Galaxy Legacy Selective Wattage Ballast, the Quantum Horticulture HPS/MH-600W

Page 2

RF Lighting Ballast, and the Lumatek "Dial-a-Watt Air-Cooled" 1000 W Ballast. The League had complained to the FCC in March 2014 about another Lumatek product, and noted that "apparently nothing has been done to date" in that case. The ARRL asserted that the three devices that are the subjects of its most recent complaints generate "blatantly excessive conducted emissions." Further, the League alleged, the devices are being marketed

and sold illegally — in both instances in violation of FCC Part 18 rules. Supporting all three complaints were detailed reports from the ARRL Laboratory that quantify the League's emission level concerns.

## Program Schedule - Sept - Oct

September: Ben, KC9UNS on Foxhunting with a \$20 SDR TV Tuner Dongle

October: Nick, W9UM DXCC Program

# Skywarn and Marathons

By Carter Garcia, KC9YGU



Interested in public service events? Contact Carter, KC9YGU at [cartera1999@yahoo.com](mailto:cartera1999@yahoo.com). There is the Merrillville Marathon coming up on September 27 and a couple more.

Carter can always use the help and working a public service event is an excellent way to hone your operating skills as well as have some fun.

You don't need any fancy equipment just an HT and/or a mobile will do for most of the events we cover. You can spend the entire time, or just volunteer for a few hours (naturally spending the entire events is more fun).

## DMR News

Mark, K9MQ

Last month, Hoosier DMR welcomed two new repeaters to its network. The W9YB site hosted by Purdue University Amateur Radio Club came online in West Lafayette, IN. This repeater has been in the works for a while and definitely helps provide the greater Lafayette area with coverage as Lafayette is in a valley. The next site that came online is hosted by Will, W9ABH in Attica, giving Western Indiana and East-



DMR Road Show Repeater

ern Illinois Hoosier DMR coverage.

Hoosier DMR has also updated their repeater map on their website. Besides showing the repeaters that are currently online,

they have also added pins showing additional repeaters that may come online in the next year or so. Check it out at <http://hoosierdmr.net/repeaters.html>

I had the opportunity to make it to the Lafayette Hamfest with Marty, WJ9Q. While it was a small hamfest, DMR had a heavy presence.

Tony, W9AMT had the Hoosier DMR Roadshow repeater setup. Steve, N9KYB with State of the Art Communications was selling the ever popular MD-380. I ended up meeting about eight people that I have either conversed with on the Hoosier DMR Facebook group or from Indiana Statewide. It was a great networking opportunity.

With DMR becoming more popular every day, people are starting to acquire a second rig such as a mobile to go along with their HT.

I would like to take a moment to talk about subscriber/user id numbers in situations like these. While some people get a subscriber number for each radio they own, in most circumstances (99% of the time) it's

totally unnecessary to have more than one number. Unless both of your radios are going to be transmitting at the exact same time (rare occurrence), your HT and mobile can share the same number. With the exception of the CS750/800, every other DMR radio only holds a combination of 1000 talkgroup/subscriber id's in it. When someone requests more than one id, that id will have to be added to the list. If every user requested multiple id's, the talkgroup/contact list in your radio would reach its limit faster say if you were adding all id's for the State of Indiana. For those of you that use the text messaging feature in DMR, it makes it easier when the other user only has one number. Otherwise, if they have two or three numbers, how do you know which number you should send the message to?

Remember to check-in to the Hoosier DMR weekly net, every Tuesday at 7pm local time, on the Indiana Statewide talkgroup (#3118). The net has been gaining momentum and have resulted in 40 to 50 checkins per net session.

Check out the Hoosier DMR Best Practices Guide at <http://tinyurl.com/nbvo7xh>

## The Fate of the 147.24 repeater. . . you decided

At the last board meeting (Friday Aug 14) the board discussed the future of the 147.240 repeater which is currently located at the Lake Central High School in St. John. This machine has always had marginal coverage and with the new construction it has become even worse. Couple that with the fact that it has almost zero use the board is recommending we remove the repeater and relinquish the frequency pair. The club would maintain the 147.000 MHz and 442.0750 MHz machines currently located at the Red Cross in Merrillville.

The club would keep the duplexers and attempt to sell the repeater.

According to the club's constitution this action requires a vote from the majority of the members at a regular club meeting.

Please come to the September 11 club meeting to vote and/or voice your opinion.

# 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)

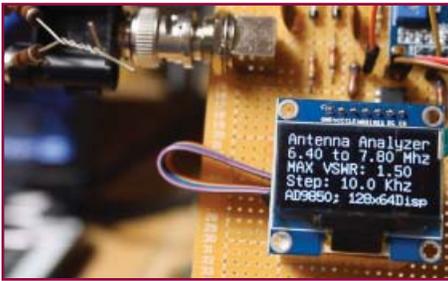
DUES ENCLOSED (please choose)

- 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"/>	

# Antenna Analyzers You Can Hack

By Dan Romanchik, KB6NU



I'm a nut for antenna analyzers. I think that they are one of the most useful things a ham can own.

I've often wondered why there aren't more DIY antenna analyzer projects,

though. Perhaps it's because designing measurement circuits isn't easy. An antenna analyzer has to have a signal source as well. Even so, an antenna analyzer doesn't need a whole lot of accuracy to be useful, so you would think that more builders/hackers would tackle a project like this.

I do know of one antenna analyzer kit on the market. The VK5JST Antenna Analyzer Kit (<http://www.ahars.com.au/about/kits/>) costs about \$110 USD. I actually purchased this kit a year or so ago, and it looks like a great unit. The unit seems well-designed, and it comes with a plastic case, unlike many projects these days, but I haven't yet gotten around to building it.

I've also recently found out about an Arduino-based antenna analyzer project (<http://hackaday.com/2015/08/06/40-antenna-analyzer-with-arduino-and-ad9850/>). It uses an AD9850 module as the signal source. The approximate cost for all the parts is about \$40, and you can experiment with the code, if you like. If you have the time and inclination, this project might be worth taking a hack at.

Another antenna analyzer project from Australia is the VK3YY antenna analyzer (or "analyser" as they spell it there). It uses an Arduino Nano. The interesting thing about the blog post in which VK3YY describes the project (<https://vk3yy.wordpress.com/2014/09/29/antenna-analyser-project/>) is that you can follow his design and experimentation process.

## Yet another analyzer

While I'm talking about antenna analyzers, let me mention another one that I've just found out about: the IW2NDH Antenna Analyzer (<http://www.iw2ndh.com/>). This antenna analyzer isn't a kit, but at \$175 seems to be a good deal. This unit has a frequency coverage of 2 - 160 MHz, and can be used as an antenna analyzer,

signal generator, and a scalar network analyzer.

Apparently, this started out as an Arduino project. As Maximo, EA1DDO, pointed out on the radioartisan Yahoo Group, there is source code for this project on GitHub (<https://gist.github.com/jackdev23/7876502>), and a schematic is available on the Union de Radioaficionados Espanoles (URE) website (<http://www.ure.es/media/kunena/attachments/2420/Schematic.jpg>).

*When not writing about antenna analyzers, Dan, KB6NU, actually builds an antenna now and then. You can often find him on the HF bands (mostly 40m and 30m), working CW. His #1-rated amateur radio blog can be found at KB6NU.Com, and you can e-mail questions, comments, or complaints to [cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com).*

**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](mailto:mark@k9mq.com)

## Assorted Stuff

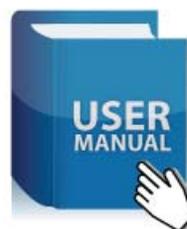
Want to make a splice that is up to NASA standards? Check out the website below:

<http://makezine.com/2012/02/28/how-to-splice-wire-to-nasa-standards/>

From Bill, N9QLS comes the following tip:

I've been testing Meijer alkaline batteries, compared to Duracell batteries. The Meijer brand batteries are every bit as good as Duracells, about half the price, and are made in a place called USA.

For some applications, alkaline batteries are better suited than rechargeable batteries. Bill, W9QLS



Ever try to find a manual for a piece of equipment (not just ham gear)? Need a manual for something you purchased on e-bay? Want to read a manual for gear you are considering purchasing? Fret no more!! Both Tom, W8FIB and Marv, WV9O forwarded me this site.

<http://www.manualslib.com/>

It has over 1,300,000 (yes over a MILLION) manuals, 1,752,800 of them are in PDF format (so they can be searched). Give it a shot!!!!