From the Oval Office

by Mark, LCARC Vice President

Back in the middle of December, a survey was sent to all readers of Short Skip asking for feedback on possible programs for 2015. We received 22 responses and the results were helpful. Several people also volunteered to present programs at the meetings. The Indiana ARRL Section Manager Joseph, K9RFZ would also like to come from Fort Wayne and talk to us.

The majority of the respondents have been licensed for at least 20 years. There is an opportunity to attract newly licensed amateurs and to keep them interested in amateur radio and the LCARC for years to come. We definitely need to work on that.

Antennas was the #1 most requested topic followed by Portable Operations. HF Digital Modes, Emergency Communications/Public Service, Kit Building, and Dxing all had strong interest. There was absolutely zero interest in Radio Astronomy (we won't be leaving earth any time soon).

We did receive a few anonymous comments. One comment mentioned having a "welcome committee" on hand at the meetings to welcome visitors and keep new members interested. The leadership has discussed designating a person at each meeting to do this along with the possibility of creating a club handbook/manual (some radio clubs do this, however it's generally duplicated information from the website) that could be given to the new attendee.

Another comment received stated that the person was interested in a "general purpose radio club that includes all ham radio topics" and that they were not interested in a repeater club. I'm not sure if that person has ever been a member of a "repeater club", but I can assure them that the LCARC is a general purpose club that doesn't specialize in any one aspect of amateur radio like contesting, Field Day, dxing, VHF/UHF, etc. However most general purpose clubs do maintain repeaters for their members to use and to help support public service communications. We will have diverse rotation of topics presented at the meetings.

The past several years we have strayed away from presenting program topics at the club meetings, which has not, been the right thing to do. Every month we plan on having a show and tell topic, roundtable discussion of a topic in amateur radio, followed by a short presentation. For those of you that complete the survey, thank you for your time and interest!

Minutes

Due to inclement weather there was no January meeting, hence there are no minutes of the January meeting. CU in February!

DMR Information

John, W9WY

A large number of hams in NW Indiana have started on DMR using the Connect Systems CS-700 **(http://www.connectsystems.com)** This is from the President of Connect System RE the price of the CS-700

=========================

Because of the high cost of processing single amateur orders, the price of the radios are going to increase from $180 to $199 effective January 1, 2015. Any order given before that time even if it has not shipped will be sold at the same price.

Any Amateur buying 10 or more radios at the same time will revert to the old price of $180. Dealers cost remain the same.

Hopefully this will give us more time to spend on developing new products and allow the dealers and other resellers the ability to sell to the Ham market thereby increasing the number of Amateurs using DMR over what we could do if everybody called us. -- Jerry Wanger, President, Connect Systems Inc.

Some other Interesting DMR Web Sites

DMR-MARC WORLDWIDE NETWORK

The DMR-MARX network is an all-digital group of over 400 DMR repeaters in 37 countries with 9214 registered users. We are all amateur radio operators many of whom are Motorola Solutions employees, Motorola Service Station employees, dealers, system installers, and Motorola equipment aficionados.

This is a GREAT site for information about DMR, the MARC network and also help programming radios.

http://dmr-marc.net/

DMR WATCH - A LIVE LISTING OF WHO IS OPERATING ON DMR IN REAL TIME, WORLD WIDE

Interested in who is operating in real time? Want to see what kind of signal they are hitting the repeater with? (the smaller the number the stronger the signal). Check out the DMR Watch web site at: **http://www.dmr.watch/**

February Program

The February program will consist of three parts as follows:

- Show and Tell: Bring your oldest QSL Card

- Program: A program will be presented by Mark, K9MQ and he'll be talking about going for the gold, all about the ARRL Worked All States Program.

- Group Discussion Topic: Discussion on building your first HF station concerning the selection of antenna and feed line.

FOR SALE!

For Sale: Kenwood TS 2000. Contact Kenny KE9TC at 219-730-7661 for additional info… Priced at a very low $800…

They sell for over $1,000 on eBay!
Note: picture of radio is a stock photo, but Ken keeps pretty good care of this equipment.-- ed.

Lake County ARC club dues are <u>due every year in January</u>. We do not send out invoices or dues reminders. Your dues can be paid in person at a club meeting (2nd Friday of each month) or by sending a check, made out to Lake Co Amateur Radio Club.

Send dues to:
Lake County ARC
PO Box 90
Crown Point IN, 46308-0090

Yeah - I'm paid up
my dues are paid for
another year.
Are yours?

With Just a WSPR

By Dan Romanchik, KB6NU

It's really amazing what you can do with computers in amateur radio, and there's been an explosion in the number of digital modes. One interesting mode that I've recently been introduced to is WSPR, which is short for Weak Signal Propagation Reporting. The protocol and the original WSPR program was written by Joe Taylor, K1JT, and is designed for sending and receiving low-power transmissions on the HF bands to test propagation paths.

I won't try to cover all the technical details here. There are several sites that cover them pretty well:

- Wikipedia: WSPR (http://en.wikipedia.org/wiki/WSPR_%28amateur_radio_software%29)
- G4ILO's Shack: WSPT - Distant Whispers (http://www.g4ilo.com/wspr.html)

I was introduced to WSPR by my friend, Joe, AC8ES. He posted a message to our club mailing list asking if anyone had a toroid core that he could buy to make a QRP balun for 10 MHz. When I asked what he was going to use it for, he said that he was making a WSPR transmitter with a Raspberry Pi, and the balun was for the dipole he built for it. He said that he'd gotten roped into doing this because he'd attended a local Raspberry Pi users' group, and when he mentioned he was an amateur radio operator, they encouraged him to try this project.

How could I refuse a request like that? I have a whole kit of ferrite cores, and after some back and forth, we found a small core that he could use.

The software he chose is WsprryPi (https://github.com/JamesP6000/WsprryPi). It's described a "Raspberry Pi transmitter using NTP-based frequency calibration." It uses a GPIO port to generate WSPR signals anywhere from 0 to 250 MHz. Joe said that there are several Raspberry Pi programs that run WSPR, but that he chose this one because it seemed to have more features than the others.

Figure 1 shows Joe's setup. Since the output generates a square wave, a low-pass filter is needed to filter out the high-frequency components. As you can see, the GPIO output is fed through a 0.1uF decoupling capacitor into a Mini-Circuits 10.7MHz low-pass filter, then to a 1:1 balun, which is connected directly to the dipole elements.

Joe says, "The antenna is just a dipole taped up to the walls of my living room and hallway." As you can see he made the balun and dipole from 24 ga speaker wire.

The performance of this setup has been kind of amazing. In one e-mail, Joe reported, "Your toroid seems to be working well. Got the balun and antenna finished and executed seven WSPR transmissions from the Raspberry Pi. The WSPR reporting website WSPRnet (http://wsprnet.org) came back with a couple dozen reception reports; typical distance is ~300+ miles, max was 593 miles." In a second e-mail, Joe writes, "Did a few more beacon transmissions and checked the WSPR signal reports again. Someone picked up my 5 mW signal from 1010 miles away in Canada."

Joe's turned into quite a WSPR fan. He's even written an Android app - WSPRnet Viewer (https://play.google.com/store/apps/details?id=com.glandorf1.joe.wsprnetviewer.app) to retrieve and displays report from www.wsprnet.org. Tapping on a specific report displays more details about it, along with a world map that shows transmitter and receiver locations.

Unfortunately, I don't have a Raspberry Pi, or I'd try this as well. I do have a BeageBone Black, but there doesn't seem to be software that I can download and install as easily as the Raspberry Pi software. That being the case, this might be a good excuse to purchase one of those new, cheaper RPis.

When he's not digging through his junk box or teaching amateur radio classes, KB6NU writes about amateur radio at KB6NU.Com. He has just released The CW Geek's Guide to Having Fun with Morse Code. The book is available on Amazon.Com or on KB6NU.Com.

"Paperless" Ham Radio License Policy Goes into Effect on Feb 17

Starting February 17, the FCC no longer will routinely issue paper license documents to Amateur Radio applicants and licensees. The Commission has maintained for some time now that the official Amateur Radio license authorization is the electronic record that exists in its Universal Licensing System (ULS), although the FCC has continued to print and mail hard copy licenses. In mid-December the FCC adopted final procedures to provide access to official electronic authorizations, as it had proposed in WT Docket 14-161 as part of its "process reform" initiatives.

Under the new procedures, licensees will access their current official authorization ("Active" status only) via the ULS License Manager. The FCC will continue to provide paper license documents to all licensees who notify the Commission that they prefer to receive one. Licensees also will be able to print out an official authorization – as well as an unofficial "reference copy" – from the ULS License Manager.

"We find this electronic process will improve efficiency by simplifying access to official authorizations in ULS, shortening the time period between grant of an application and access to the official authorization, and reducing regulatory costs," the FCC Wireless Telecommunications Bureau (WTB) said. According to the WTB, the new procedures will save at least $304,000 a year, including the cost of staff resources.

In comments filed November 5, the ARRL had strongly recommended that the FCC "give serious consideration to continuing a default provision for sending an initial paper license document to new licensees in the Amateur Radio Service, along with detailed, simple instructions for how to make the elections set forth in the notice relative to future modified or renewed licenses."

The FCC said that applicants or licensees who include a valid e-mail address under "Applicant Information" in the ULS will receive an official electronic authorization via e-mail. New license applicants who do not provide a FCC Registration Number at the examination point will receive a printed license as well as an FRN and a temporary password to access the Commission Registration System
(CORES).

The ARRL and other Amateur Radio commenters also worried that unless a license document is printed on distinctive paper stock, its authenticity could be questioned in such situations as obtaining vanity call sign license plates. To address this, the FCC said the watermark "Official Copy" will be printed on each page of an official authorization that a licensee prints out from the ULS. The WTB recently stopped using distinctive paper stock to produce hard copy licenses and has been printing these on "standard, white recycled paper." The Bureau noted that the distinctive paper stock it had used was six times more expensive than the plain recycled paper it now uses.

The ULS License Manager now includes settings that allow licensees to notify the WTB that they prefer to receive official authorizations on paper. Once the final procedures go into effect designating electronic access as the default, licensees can change the ULS License Manager setting so that the Bureau will print and mail a license document. Licensees also may contact FCC Support via the web at, http://esupport.fcc.gov/index.htm?job=contact_fcc_support , or via telephone or mail to request paper licenses.
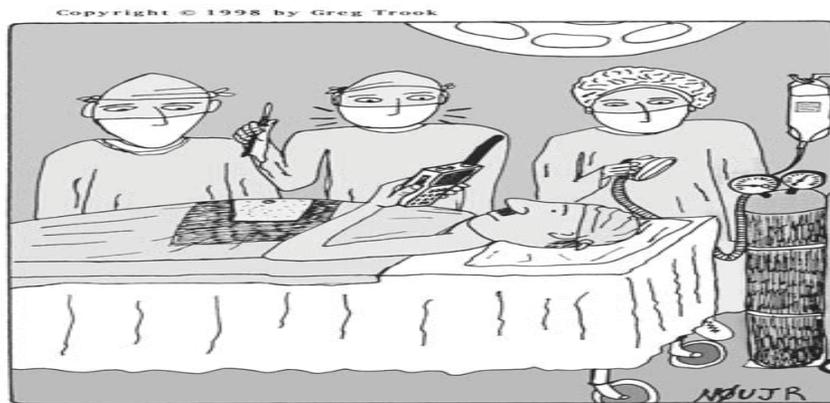
"Mr. Nelson...I'm afraid you will have to leave the air for a while during this procedure."

Skywarn and Marathons

By Carter Garcia, KC9YGU

Happy February! The members of NWI Skywarn want to remind everyone this is the best time of year to take spotter-training classes! At this time, registration is open for the DuPage County Advanced Severe Weather Seminar. This is the only advanced spotter class in our area. If you haven't been there yet, I would definitely recommend it. You can find more information at http://www.dupageco.org/weatherseminar/ Links to the online basic training courses can be found at our website, www.nwispotters.org

Apart from storm season, NWIS and the LCARC will be looking for many operators over the next few months to help out with communications at some of our local marathons. These marathons help to provide operators with skills that can later be applied to a real-life emergency. No experience is required for any event but if you plan on coming out for Leon's Triathlon this year, I would suggest you also come out for the Lowell Marathon in April- just to get some practice. A full list of the marathons volunteers will be needed for is below.

2015 Marathons:

- Crossroads of NWI Marathon (Lowell)..April 26
- The Biggest Loser ½ Marathon (Crown Point)..Pending
- Leon's Triathlon (Hammond).. une 7
- Brickyard Run (Hobart).. July 4
- Tri-Town Community Marathon (Merrillville)...September 27
- Valparaiso ½ Marathon..October (TBD)

The Illinois Radio League can also use some help with:

- The Shamrock Shuffle... March 29
- The Chicago Marathon .... October 11

Comments or Questions? Contact Carter, KC9YGU carter.nwiskywarn@gmail.com

"Gentlemen...tonight we will begin the Malicious Interference Net with a round of anonymous whistling, followed by free style profanity. Remember...no call signs!"
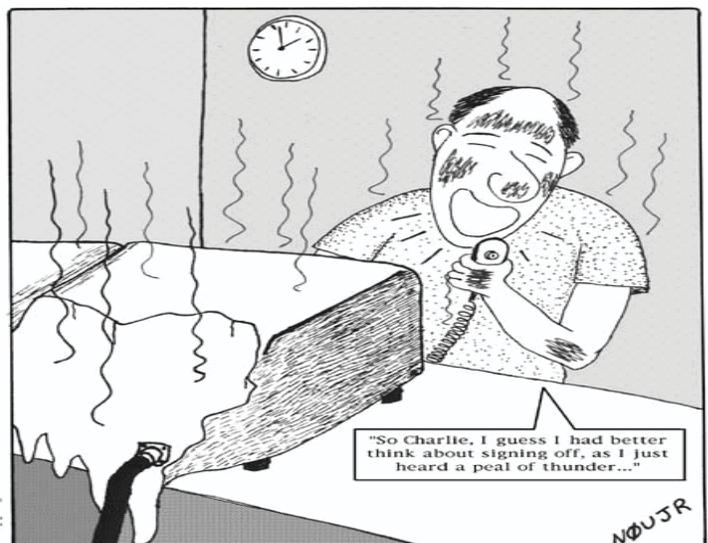
"So Charlie, I guess I had better think about signing off, as I just heard a peal of thunder..."