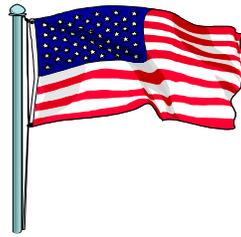


10 METER ROUNDTABLE  
WEDNESDAY NIGHT @ 2030 HRS  
28.450 MHZ.



LCARA TWO METER NET  
THURSDAY EVENING @ 1900 HRS.



LCARA WEB SITE  
[www.lcara.org](http://www.lcara.org)

## The LCARA Patch

Volume 40, Issue 3

MARCH 2018

### The PATCH

Published by the Lake County Amateur Radio Association  
P O Box 868  
Painesville, OH 44077-0868

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### February's meeting is at Tri-Point Medical Center

Physicians Pavilion (Lower Level)  
7590 Auburn Rd., Concord, OH 44077  
<http://lakehistorycenter.org/>

Meeting @ 7:30 pm on March 7<sup>th</sup>

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**MINUTES FROM FEBRUARY 7<sup>th</sup> MEETING**

**NO MEETING**

**DECEMBER ATTENDANCE**

**NO MEETING**

**From the Corner Office of the VICE PRESIDENT,  
LARRY K8LPC**

*Greetings Everyone ☺*

*March is here, and along with it come warmer temperatures, it couldn't have happened too soon. Our March meeting will be the last meeting at the Tri-Point facility until this fall. Beginning in April, we will return to the Lake County Historical Society.*

*We canceled our February meeting due to the deep freeze. We will start 2018 with the announcement of the 2017 "Ham of the Year" at the March meeting.*

*As of right now, we have no scheduled Public Service events scheduled for March, but I'm sure that Mike WBSZGH will be giving us an update soon in regard to our schedule for this year. If you're a regular working the events, then you already know how much fun they are. If you haven't worked an event, consider giving it a try, I think that once you've tried it, you'll be coming back.*

*Let's talk about Hamfests. At least two of our very own visited the Orlando Hamcation this year. Joe NSJKO won an ARRL gift certificate and Bill NSJG found a microphone that I had been looking for a long time and he brought it back for me. Congratulations to Joe and many thanks go out to Bill.*



*Joe NSJKO with ARRL gift certificate*

*I went to the Mansfield Hamfest accompanied by Ray NSEQT and Bob W2THU. Ray and I enjoyed the Ohio Single Sideband Winter Meeting; Bob brought home a Heathkit SWR Bridge. Mike WBSZGH and his wife Fran stopped by the OSSBN meeting to say hello, and it was certainly good to see them. Mike found a deal on a 220 radio, which is nice because he can keep our 220 repeater warmed up.*

*Speaking of repeaters, all of our machines are working tip top. We have three weekly nets, on Monday, we have the Lake County ARES Net at 7PM, on Thursday we have the LCARA Weekly Net also at 7PM. These Nets are on our 147.21 repeater which requires a PI tone of 110.9. On Wednesday we have our 10 meter roundtable on 28.450 at 8:30 PM. Please take some time to visit us on any or all of our Nets, we will be glad to have you.*

*We are collecting 2018 dues through March. Please see Rick WSQL or any Board Member to keep your membership current.*

*Our next VE testing session will be on Saturday April 7<sup>th</sup> at 12 noon at the Kirtland Library. We do entry level testing and also upgrades. Please arrive a little early so you can fill out the required paperwork before the exam begins.*

*The next LCARA Board meeting will be at the Tri-Point Facility on Wednesday March 14<sup>th</sup> in the Board room at 7PM.*

*Our March breakfast meeting will be on Tuesday March 20<sup>th</sup> at the Perkins in Painesville, which is coincidentally the first day of spring. Come and join us if you can.*

***We are always looking for Guest speakers or ideas for presentations. Please contact Joe NSJKO or myself if you have any ideas.***

***I'm looking forward to seeing everyone at the Tri-Point Medical Facility on Wednesday March 7 at 7:30 PM, bring a friend***  
☺



***73 de Larry Caskey KSLPC***

***LCARA Vice President***

**[KSLPC@ARRL.NET](mailto:KSLPC@ARRL.NET)**

## ***MARCH Backscatter 2018***

**137 Years Ago:** Born, Richard C Tolman, inventor of the electron. A physicist and chemist, he demonstrated that electrons are the charge-carrying particles in the flow of electricity, and measured its mass. During the Manhattan Project of WW II, he was the chief scientific adviser to Brig. General Leslie Groves, the head of military affairs overseeing the development of the atomic bomb.

**41 Years Ago:** The first Cray-1 supercomputer, Freon-cooled and costing 19 million dollars, was shipped to Los Alamos Laboratories, NM. It had peak performance of 133 megaflops and used the newest technology, integrated circuits and vector register technology. It looked like no other computer, being a cylinder 17 feet tall and 9 feet in diameter, weighing 30 tons and requiring its own electrical substation.

**35 Years Ago:** The FCC issues a NPRM to create a new codeless license class, stating “there are intelligent, disciplined persons who can make a valuable contribution to the Amateur Radio Service without such proficiency.” Still undecided is whether the name for the new class should be “Technician” or “Experimenter.”

Not just one, but two DXpeditions are on the air from rarely heard Heard Island. No excuses for missing this one. Jim Smith, leader of one of the DXpeditions is irritated by his lack of exclusivity, and promises “to set the record straight” at the upcoming Dayton Hamvention.

**20 Years Ago:** Special Event station N200BC plans are progressing well, with donations received of \$100 from the city of Mentor, \$50 from Antenna Specialists, and an amazing \$500 from the Lake County commissioners!

**25 Years Ago:** Beware the Ides of March! The FCC issues a NPRM ending certification of scanners capable of receiving the 800 MHz cellular phone band effective March 23<sup>rd</sup>.

Spark gap, anyone? Tim, N8TLM reminds us that just walking across carpet can generate a static charge of 35,000 volts, and even picking up a plastic bag can create a 20,000 volt charge.

**20 Years Ago:** Tim, KQ8TC collects memories of the 1<sup>st</sup> LCARA Hamfest, held in 1979 at the National Guard Armory at the corner of Mentor Avenue and Fairgrounds. Admission was \$3.00, collected as cars pulled into the parking lot,

resulting in traffic jams on Mentor Avenue. The Hamfest logo was a huge plywood fish, outlined with Christmas tree lights, created by Wayne, WB8ZWR, the first chairman. Upfront money for the Hamfest, around \$1500-\$2000 was put up by Wayne, and other Hamfest organizers. This was the only Hamfest held at the Armory, as the following year it moved to the Mentor High School, and two years after that, to the Madison High School.

**15 Years Ago:** After 27 newsletters, Patch editor Ken passes the reins on to Grant, N0IXL.

ST0RY (S-T Zero R-Y) operates for three weeks from South Sudan. Other suffixes, apparently rejected, include DGY, LEN and OL, not to mention NED.

**10 Years Ago:** Mike, WB8ZGH reports the club's emergency trailer has been ordered "in accordance with discussions with the county.

Hamfest, DOA. At a very well attended Hamfest meeting, it is determined the income from a Hamfest, potentially at the Lake County Fairgrounds, would be unlikely to exceed the costs.

**5 Years Ago:** LCARA goes to the dogs. The program at the February meeting Wil Rosch of the Big Creek Search Dog team gives a presentation with the help of his "best friend" Jordan.

LCARA Historian

Scott KO8O



## ***DX ALERT MARCH 2018***

**3D2/R - Rotuma Island** - *The European team will activate 3D2EU from February 23 to March 16. They expect to arrive on Rotuma Island on the afternoon of February 23rd and are hopeful to begin operations "a few hours after [their] arrival.*

**Z6 - Kosovo** *Z68M by Z32ZM will be February 22 to March 6.*

**1S - Spratly** *Team 9M0W is planning an operation from Layang Layang. The 20 person effort should be on the air March 6-13.*

**CN - Morocco** - *During the CQ WPX SSB Contest, March 24-25, CN8NK, Mhamed, is planning a single-op effort with special call CN4P from Rabat.*

**Z2 - Zimbabwe** - *LA7THA, LA7WCA and LA9VPA will operate holiday style March 2-11, callsign Z2LA. They plan to be on 160-10 SSB and CW.*

**ZD8 - Ascension Island** - WW6RG, Randy, plans to be back here and QRV as ZD8RA on February 20th. Listen for him from 0830 to 1100Z and again from 1730 to 1930Z.

**FK \_ New Caledonia**, - Arnaud, JG1XMV plans to be QRV as FK/JG1XMV from Grande Terre, IOTA OC-032, Lifou and Mare, both IOTA OC-033, from February 17 to March 3. Activity will be holiday style on the HF bands.

Don't forget the ARRL DX SSB Contest starting 0000Z March 3 through 2359 March 4, 2018. It's a great opportunity to get a lot of DXCC entities in just a few days. N1MM has a file for the contest.

Happy hunting!

Jim, AA8OY



Thanks to ARRL DX and Weekly DX

## SKYWARN TRAINING

Skywarn Training will take place at Lakeland Community College on Monday April 23, 2018. The location is room T-129 at 18:30. Please be there prior to class to register. Look forward to seeing many of you there in April.



## VE TESTING IN LAKE COUNTY

Exams are held every other month.



The Lake County Amateur Radio Association will be holding its **2018** Amateur Radio license exams at **the Kirtland Library**, 9267 Chillicothe Road, on the following dates:

Saturday, February 3  
Saturday, October 6

Saturday, August 4  
Saturday, June 2

Saturday, April 7  
Saturday, December 1

This bi-monthly schedule is the first Saturday of every even-numbered month (e.g., February being the second month, etc.), and will be held at the Kirtland Library, 1.7 miles south of I-90 on Route 306 (Chillicothe Rd). The library is on the left, just beyond the Marathon gas station. The tests will start at **12 noon**. Please arrive a few minutes earlier.

To register, you will need the NCVEC 605 Form, which will be available at the test. If you would like to complete one ahead of time, be sure it is the Sept 2017 version or later. You can find it at [www.arrl.org/files/file/ncvec605-3.pdf](http://www.arrl.org/files/file/ncvec605-3.pdf)

Be sure to bring **the original** and a copy of both your license and any CSCEs you may have to the exam. The cost is \$15.00, and if you wish to pay by check, it should be made out to the ARRL/VEC. Identification with your picture is also necessary, such as a driver's license. If you have any questions, please contact Scott Farnham, KO8O, at (440)256-0320, or [scottfarnham@roadrunner.com](mailto:scottfarnham@roadrunner.com)



## *Breakfast Date for MARCH 2018*



Mark your calendar the next meeting of the Tuesday Morning Breakfast Group is at the Painesville Perkins on **Tuesday, March 20<sup>th</sup>** at 8:00 a.m. Breakfast orders start being taken at 8:30 am. This group averages 10-15 people from all counties, and it provides a great opportunity to meet other Hams, sell and trade your spare equipment. This is not

a club event. Please encourage any Hams or Non-Hams, to bring your significant other, or a friend, to breakfast. It is a fun gathering.

### LCARA BOARD MEETING

The January Board meeting will be at the Tri-Point facility on March 14<sup>th</sup> @ 7pm, in the Tri-Point Board room.

To find the Board room, simply continue walking past the regular meeting rooms down the hallway. The Board room is located on the left from the main elevators.

All members are invited

## *FOR SALE OR SWAP*

**EQUIPMENT FOR SALE: BY BILL, N8IJG (CALL) 440-943-1703**

1. Heathkit DX-60A AM/CW Transmitter with HG-10 VFO, Asking \$150.00
2. MFJ 8268 Digital SWR/Wattmeter/Freq Readout, Asking \$140.00
3. Drake 2-B Receiver w/2-BQ Q Multiplier and Speaker, Asking \$350.00
4. Icom IC-756 Pro 3 Transceiver, Asking \$1300.00
5. Icom IC-820H 2/440 Base Dual Band Transceiver All Mode, Asking \$600.00
6. Icom IC-275H 2 meter All Mode Transceiver, Asking \$600.00
7. Swan 350C w/117XC PS, Asking \$300.00



Event	Contact	Location	Date
ARES	WB8ZGH mgoffos@ymail.com	147.210 MHz	MONDAYS 19:00
Two Meter Net	Bill N8IJG n8ijg@arrl.net	147.210 MHz	THURSDAYS 19:00
Ten Meter Roundtable	WB8ZGH mgoffos@ymail.com	28.450 MHz	WEDNESDAYS 20:30
LCARA Meeting	Larry <a href="mailto:K8LPC@arrl.net">K8LPC@arrl.net</a>	Tri Point Medical	3/7 19:30
LCARA Board Meeting	Larry <a href="mailto:K8LPC@arrl.net">K8LPC@arrl.net</a>	Tri Point Medical	3/14 19:00
Breakfast	lcara.org	Painesville Perkins	Tuesday 3/20 08:00
VE Testing	Scott, KO8O, at 440-256-0320	Kirtland Public Library	4/7 12:00 PM
HAMRADIO PRESENTATION	Bob, K8QXO, k8qxo@arrl.net	LCHS	3/15 7:00 PM

## ARES 2017 YEAREND REPORT

Hi all! The ARRL has published its yearend report for 2017. We've told you repeatedly that Ohio is a leading program...and that's all because of YOU!

Here are the official stats.

Nationally, there were 31,322 members (a 12% increase from last year) The caveat is that more Sections have been reporting than ever before, so you'd expect that number to be up.

There were 34,125 Ares nets

Drills training and tests: 42,838

Public service: 5,730

Emergencies: 1,913

Skywarn: 1,198

Total monetary value (at \$24.14) \$17,354,958

So that is ARES contribution to our nation in 2017- something we can be proud of!

How about Ohio?

Ohio reported 1858 members, with 9,457 events and a contribution of \$2,051,972. You invested 85,003 hours in service to your communities!! This, with our reporting record of 100%, puts Ohio in the top five ARRL sections.

We are actually third by state (California 2265, Texas 1930 are ahead) in membership. Ohio is FIRST in number of ARES events! And we are second in the amount you have contributed to your communities: \$2,051,972. We are second behind MI (90,244) in hours contributed.

Dividing this by FEMA region (we are in 5) we are in the strongest position with the most members, by far the most events and volunteer hours. Our contribution as Region 5 is \$5,459,213. Region 5 is OH, MN, WI, IN, IL, MI.

These are great numbers to show your EMA Directors! The takeaway is that even with major events such as hurricanes; our Ohio Section ARES is the most consistently active organization- showing that we DO have the training and track record to be a valid partner!

I cannot thank each of you enough for your time and energy!! These results show that it's working, and very worthwhile!

Stan Broadway, N8BHL

Section Emergency Coordinator – Ohio

**ARRL - The National Association for Amateur Radio™**

**On Tuesday, February 20, 2018 4:44 PM, "Powell, Allison" <allison\_powell@nps.gov> wrote:  
Hello Friends of James A. Garfield National Historic Site!**

*I hope this email finds you all well. You are receiving this correspondence because you've either participated in our Civil War Weekend in the past, or we hope to have you this summer!*

*The 2018 Civil War Weekend will be Saturday-Sunday, July 21-22. Friday evening we will have speakers hosted by the Northeast Ohio Civil War Roundtable, so if you're spending the night Friday please come by to see presentations by Dan Vermilya and Matt Atkinson!*

In 2017, the Garfield site was designated as a National Underground Railroad Network to Freedom site, so our overarching theme for this event will be the Underground Railroad. We'll have programming and activities to educate our visitors about this important part of Civil War history. If you are able to incorporate this theme into your interpretations, please let me know.

As always, thank you for all the time and personal resources you put into attending our event, and making it something our visitors return to year after year. We are so grateful for each and every one of you!

Regards,  
Allison

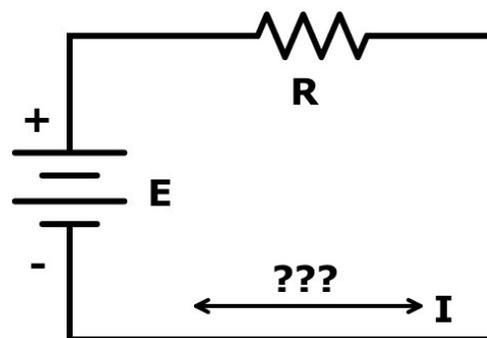
Allison Powell  
Park Ranger  
James A. Garfield National Historic Site  
8095 Mentor Avenue  
Mentor, Ohio 44060

## ARTICLE BY DAN ROMANCHIK KB6NU

### Which way does current really flow?

I was recently taken to task by one of my blog readers regarding my description of current flow in my [No Nonsense Technician Class License Study Guide](#). He wrote:

You casually say that current flows from Positive to Negative (with cool accompanying directional arrows), without any accompanying qualifying statement. Over the years I have looked at ALL the views on the subject. Positive to Negative is NOT what I was taught 48 years ago, and I have never seen a good reason to change my view.



In a subsequent email, he pointed me to a Nuts 'n Volts article, "[Which Way Does Current Really Flow?](#)" and asked my opinion. In the article, the author, who is a ham by the way, does a good job of explaining the various types of current flow.

I agree that in electronic circuit's electrons flow from negative to positive, but it really doesn't matter. I agree with one the article's commenters who says,

This is a silly argument. It's like comparing apples and oranges and challenging people to take sides.

Electron flow is not current flow. Electron flow is easy to understand, an actual physical property, and a real help in understanding vacuum tube operation. But it falls apart when one needs to understand complex electronic systems.

*[Conventional] current flow is a mathematical abstraction. It is defined as a net flow of positive charge, irrespective of the polarity of the physical charge carriers – whether electrons, holes, positive or negative ions, or whatever.*

*When looking at any circuit containing a resistance with a voltage across it, conventional current through that resistor says that the voltage drop occurs as the current through it meets resistance. On the other hand, in negative (electron) flow, a voltage INCREASE will correspond to the 'current' flow through it, clearly violating physical laws. Conventional current flow is consistent with the laws of physics and those of other engineering disciplines.*

*You are correct that engineers, professors and scientists use conventional current flow. That is not because they are too obtuse to understand electron flow; I assure you they fully understand it. It is because in their world they have to solve more general problems involving complex math and science, and, again, conventional current flow is consistent with physical laws.*

*It is unfortunate that electron flow and current flow are so often confused. They both have their place.*

*After reading that article, I thought I'd see what the ARRL Handbook has to say about current. In the 1963 edition, they don't mention electron flow at all. They have one diagram showing the direction of current flow in both series and parallel circuits, but the voltage source has no polarity. It's simply labelled "Source of E.M.F." Diagrams giving practical examples of series and parallel circuits do include a battery, and if the reader were to mash up the two diagrams, they would conclude that current flows from the positive terminal to the negative terminal.*

*The most recent edition of the Handbook that I have is the 2005 edition (it might be time to get another copy!). It says,*

*Electrons move from the negative to the positive side of the voltage, or EMF, source. Conventional current has the opposite direction, from positive to negative. This comes from an arbitrary decision made by Benjamin Franklin in the 18th century. The conventional current direction is important in establishing the proper polarity sign for many electronics calculations. Conventional current is used in much of the technical literature. The arrows in schematic symbols point in the direction of conventional current, for example.*

*Having said all that, I really don't see that there's much of a controversy here. I did learn to think of current as conventional current in college, although it was mentioned that electrons actually flow in the opposite direction. Using the concept of conventional current has never seemed to hold me back. I've been able to design circuits and repair electronic equipment thinking that current flows from positive to negative.*

*Although it's a departure from my "no nonsense" style, I am thinking of including a sidebar, similar to the paragraph above from the 2005 Handbook explaining the two ways of looking at current flow. What do you think?*

---

*When he's not trying to figure out which way current flows, Dan blogs about amateur radio at KB6NU.Com, teaches ham radio classes, and operates CW on the HF bands. Look for him on 30m, 40m, and 80m. You can email him at cwgeek@kb6nu.com.*

## LCARA NET INFORMATION

### LAKE COUNTY ARES NET

**The Net is Every Monday at 7:00pm** on the 147.210 repeater. This net is open to all licensed operators; you do not need to be a member. This net is provided for operators to verify the proper operation of their equipment and verify their station's capabilities in the event of an emergency. Here is your perfect chance to be Net Control or Alternate Net Control. Step forward, no experience is necessary, everyone will help you.

## ***LAKE COUNTY TWO METER NET***

**The 2 Meter Net** runs weekly. Come join your fellow hams on Thursday's at 7:00 p.m. on 147.210 MHz.

This is an informal net where the group can discuss any subject for the good of the group, great time to ask those questions, especially from the new operators. List your items related to ham radio that you want to sell or swap and any sunshine announcements to pass on.

N8IJG brings us the ARRL News when available. Bill is always looking for Alternate Net Control Operators. Please check in.

## ***TEN METER ROUNDTABLE***

**The 10 Meter Roundtable meets on Wednesday's** at 8:30 p.m. on 28.450 MHz.

This is an informal roundtable where the group can chat about anything that comes to mind and even correct some of the world's problems.

You don't need to be a LCARA member, just have at least a Tech ticket and some 10 meter gear.

The Roundtable is a good chance to meet old and maybe some new friends. This is a "Round Table" anyone can start it off on 10 meters. Any questions contact WB8ZGH.



## ***OHIO EMERGENCY PREPAREDNESS NETS, COLUMBUS EOC***



**Ohio Emergency Preparedness Net, w8SGT**, is on every Tuesday at 7:15 pm. Try 3.902 MHz, tune up and down the band and check in! Follow on Twitter (hashtag W8SGT) for frequency information on the 80 meter band.

**Ohio Digital Emergency Net** is held on Tuesdays at 8:00pm (0100 UTC).

OHDEN meets on 3585 KHz +/- USB. <http://ohden.org/>

**This net is looking for all Ohio Counties to check-in. Learn as you go.**

**Modes:** OLIVIA 8/500/PSK31 alternate, with MT63 1K for bulletins.

**Frequency:** 3585 KHz, 7072 KHz alternate.

MT63 2K on VHF/UHF with PSK as an alternate (Assigned locally)

## ***THE AMATEURS'S CODE***

*by Paul M. Segal, W9EEA (1928)*

**The Radio Amateur is:**

## The PATCH, Published by the Lake County Amateur Radio Association

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*CONSIDERATE..... never knowingly operating in such a way as to lessen the pleasure of others.*

*LOYAL..... offering loyalty, encouragement and support to other amateurs, local clubs and the American Radio Relay League, through which Amateur Radio in the United States is represented nationally and internationally.*

*PROGRESSIVE..... with knowledge abreast of science, a well built and efficient station, and operation beyond reproach.*

*FRIENDLY..... with slow and patient operation when requested, friendly advice and counsel to the beginner, kindly assistance, co-operation and consideration for the interests of others. These are the hallmarks of the amateur spirit.*

*BALANCED..... Radio is an avocation, never interfering with duties owed to family, job, school or community.*

*PATRIOTIC..... with station and skill always ready for service to country and community.*

LCARA was organized for the purpose of furthering Amateur Radio by increasing the technical knowledge and operating proficiency of radio amateurs through continuing education, public service and acting as a vehicle of communication by, between and with the members of the association. LCARA is an incorporated association chartered under the laws of the State of Ohio and is an exempt organization under section 501 (C) (3) of the Internal Revenue Code. Contributions to LCARA are fully deductible from Federal Income Tax. Regular and Senior Dues are \$20.00 per year, Students \$10.00. Items may be reprinted by other non-profit publications without prior permission providing credit is given to the original source and The LCARA Patch. Articles from members are welcome.

### **Voice Repeaters N8BC**

147.210 with a .600 MHz+ offset PL tone of 110.9 Hz.

224.500 with a 1.6MHz.-offset, PL tone of 141.3 Hz.

444.650 With a 5.0MHz. +offset, PL tone of 131.8 Hz.

(Repeater & N8BC trustee, Bob Liddy, K8BL)

**Web site:** [www.lcara.org](http://www.lcara.org)

**To receive the Patch via email in PDF format** Send an e-mail to [lcara\\_patch-subscribe@yahoogroups.com](mailto:lcara_patch-subscribe@yahoogroups.com)

## THE LAKE COUNTY AMATEUR RADIO ASSOCIATION

