

THE TUNED CIRCUIT

Club Website: <http://www.n8lc.org>

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**May TC
Deadline:
Monday
April 27th**

Next Meeting - 7:00 PM **MAY
6th 2020** at the Tucker Senior
Center (see [last page](#) for map and
address).

Meeting Program - The program for
our meeting will be as reported on
[page 5!](#)

The NEXT board meeting will be
on Wednesday, May 13th, 2020.

THE PREZ SEZ

The April LCARC meeting is CANCELED

The Harrison Township Senior Center is
closed until April 13th.

As a result of the closure and in helping
to flatten the Covid-19 infection curve,
there will **not** be an April meeting of
the L'Anse Creuse Amateur Radio Club.

Good health to everyone and their
families!

73!

Scott D. Hernalsteen/W8CQD

CQ MIQP CQ MIQP N8LC MIQP
Michigan QSO Party April 18, 2020

Report of the Secretary

by Marty / K8HVI

Meeting Call to Order:

The LCARC President (Scott/W8CQD) called the March 4th, 2020 LCARC general membership meeting to order at 7:02PM. 23 members and 3 visitors, Dave/N8NLK, AC8DO, KE8FVD in attendance.

Meeting Minutes Approval. A motion to approve the meeting minutes as presented in the February *The Tuned Circuit* newsletter was made by Russ/N8HAR and seconded by Dale/K8RO. The motion was approved.

Secretary position. Marty/K8HVI nominated himself for the position. He was accepted by acclamation as no one else challenged for the open position. This was followed by much fanfare and jubilation.

Treasurer's Report by Gregg, N8GEO:

7800.23	Balance in the club account
517.00	Youth Forum Fund
340.69	Repeater Fund
6942.54	Unallocated club funds

At the time of this meeting, Gregg said that LCARC has no outstanding bills.

When the \$1,150 check is returned from the Knights of Columbus for the 2019 radio raffle support, we will have \$8,092.54 available.

Where's Doug: Doug/N8PYN will be at the TAMARA Toledo, OH swap on March 15. The club will not have a table. Russ/N8HAR plans to be there with swap fliers.

The GM Radio Club Technology Expo will be April 19th. The club will have a table at that event.

Technical Committee report: Doug/N8PYN said all the packet station equipment is now at the repeater site. The 486 computer that we bought in the early 1990's is dead and Doug plans to replace it with a Raspberry Pi computer which will allow for low power usage.

Net Points; reported by John/N8FYL in Clem / W8VO's absence:

Name	Points	Name	Points	Name	Points
Clem / W8VO	3400	Gregg / N8GEO	1700	Ralph / W8ROI	1100
Mike / AC8ER	1000	Russ / N8HAR	300		

QSL Report: by Dale, K8RO. Dale said that 4 QSLs came in this month, 1 was rejected.

Membership and Tuned Circuit Report: by John/N8FYL

The LCARC has 68 members. 4 new members.

The Tuned Circuit February deadline is March 23rd.

Old Business:

Dayton Rooms. Greg/N8GEO

Rooms still available. If you want them call directly to hotel (Holiday Inn Express reserved under Bak).

They just need your credit card to reserve and you can cancel a few days before the event.

(Continued on page 3)

(Continued from page 2)

Radio Raffle. Greg/N8GEO

Raffle Tickets are now printed. Greg did verify that we can sell them out of state.

Discussed a Raffle Table Cover that will fit a 6 foot or 8 foot table. It will have nice lettering. Will say across top: "L'Anse Creuse Amateur Radio Club Radio Raffle", "Need not be present to Win", and "\$10 per Ticket". Estimated price is \$180.. Marty/K8HVI motioned to approve up to \$200 to cover the purchase of the table cover. The motion was seconded by Mike/AC8ER. The motion was approved.

Old Magazine LCARC Stickers

Greg/N8GEO stated he still has free club stickers for anyone to take to put on your ham radio magazines and then leave them at office locations to further the interest of amateur radio.

Swap Update: Russ/N8HAR

Completed our swap registration with the ARRL. They sent us coupons for prizes.

VE Sessions: Greg/N8GEO

A VE session was held on Feb. 10th at 6pm. Two persons tested. 1 passed the Tech and then passed the General. 1 did not pass the Tech. Offered them free club memberships.

Break: We took a refreshment/rag chew break from 7:30pm to 7:46pm. Ken/KD8RJN to handle door prizes. Fritz/KE8BFW to handle Youth Forum 50/50.

New Business

Repeater equipment refresh:

Ken/KD8RJN stated the tower climber gave us a quote of \$1,109 for the original list of items we asked him to perform. Also, he gave us a quote for a site visit to check everything out (take pictures, check hardware, check coax. Check antennas, etc.) for \$179.15. Much discussion about what items we want to get reviewed/refreshed. We agreed we would just do the site visit first and learn all we can about what we have. Then we can take that information to make determinations about final equipment refresh we would like to occur.

More College Equipment: John/N8NXW brought in a bunch of miscellaneous old equipment from the college. This stuff was so old, the college didn't even want to track it anymore. Some items were purchased during the meeting and the remaining items were given to Ken/KD8RJN to put in the "sale at the Dayton Hamvention trailer". It was reported that some of the items might have fallen out of the back of Ken's truck on the way to the meeting after the meeting.

The board meeting will be next Wednesday March 11 at 7pm at Roseann's Kitchen Cafe (15 Mile and Gratiot).

Drawings: 50/50: \$10 John/N8FYL; Door Prizes: took in \$24.

The meeting was adjourned around 7:58pm

Program: The program/entertainment will be a review of the club constitution to clean up meeting quorum requirements and some miscellaneous other outdated items. After much constitution discussion, the board agreed to finalize the recommended changes at the upcoming board meeting. We will then present the changes to the club.

The Program ended at 8:55pm.

APRIL 1ST MEETING CANCELED!!!

The April meeting is canceled due to the COVID-19 pandemic restrictions that are in place.



MEETING is Canceled!!



Membership Report

No changes in membership in the past month. We remain at 68 members. 9 are life members, and 59 are regular members, of which 4 are enjoying the first year free experience.

John / N8FYL — 3/24/2020



DAYTON 2020

Well sorry to say, but this years Dayton Hamvention has been cancelled due to the Covid-19 virus. I'm sure that this was a hard decision for the organizers of the event. But it's better for all that would have been involved that this has happened. I'm sure everyone that was going, feels bad about not being able to attend but lets hope for better times by then. For those of you that had a reservation at the Holiday Inn (that the club had reserved) your reservation has been canceled. Thanks to Ted K8EO, he received an email from the hotel about our reservation. He called them back and canceled the whole block. THANKS to Ted for saving us the effort of making the call to the hotel to cancel. Lets hope the swaps that are scheduled for the summer (after May) can still take place.



73 Gregg / N8GEO

FWIW—No Surprise– ARROW Dayton Bus Trip is Canceled

You may remember the information about the bus trip from the March *Tuned Circuit*. It's official, the trip is canceled. See [ARROW Event Cancellations for March & April 2020](#). Per that page: "We have processed all Hamvention bus trip refunds as of March 16, 2020 if you paid using PayPal. Checks will be in the mail soon."

Board Meeting Minutes

Submitted by Marty, K8HVI

Meeting Call to Order:

The LCARC President (Scott/W8CQD) called the March 11th, 2020 LCARC board meeting to order at 7:14PM.

Present were Scott/W8CQD, Gregg/N8GEO, Ken/KD8RJN, Doug/N8PYN, Marty/K8HVI, Cathy/KC8WNK.

Both Marty and Gregg presented their constitution change mock-ups that were generally agreed to at the general membership meeting. Discussion was had on merging them and coming to a final version that met the general membership's wishes. It was agreed that Marty would do the final merge work that would be sent out to the members.

We received an email that the GM Radio Club will be giving us a table at their upcoming swap. Doug will follow up on this.

Ken agreed to pick a restaurant for the Dinner Night Out on Tues. 3/24.

Gregg brought up a need to add an amateur radio testing info page to our club website. Gregg stated he would get the details and send it to Marty get it turned into a web page.

Gregg stated we are all set for Dayton Hamvention hotel rooms.

Gregg stated he now has our LCARC Radio Raffle tickets.

Doug agreed to work on a new antenna wish list for the repeater. He noted we might have a possible donation from one club member.

Meeting adjourned sometime around 7:45pm.

N8LC Repeater Tower Work Report

Submitted by Ken / KD8RJN

On Saturday March 14 2020 we had Thomson Engineering out to inspect our antennas and coax at our repeater. They came well equipped and knew what they were doing.

They performed all the work we requested at both 180 foot level and 100 foot level:

1. All coaxes (3 @ the 180 foot and 2 @ the 100 foot level) need to be inspected and tested.
2. We would like pictures of all brackets and connections
3. Your suggestion on bracket types and connectors that need to be replaced
4. Your suggestions on antennas

They made some suggestions on what antennas to use. We are now ready to move forward with making our plans for antenna replacements and installation of new equipment.

I will ask every member to send to me or anyone on the repeater team a wish list of what they would like to see the repeater site have. Now is the time to move forward as we have a good tower team and the cost is coming well within budget. We may never have this chance again.

The cell tower that is home to the N8LC antennas



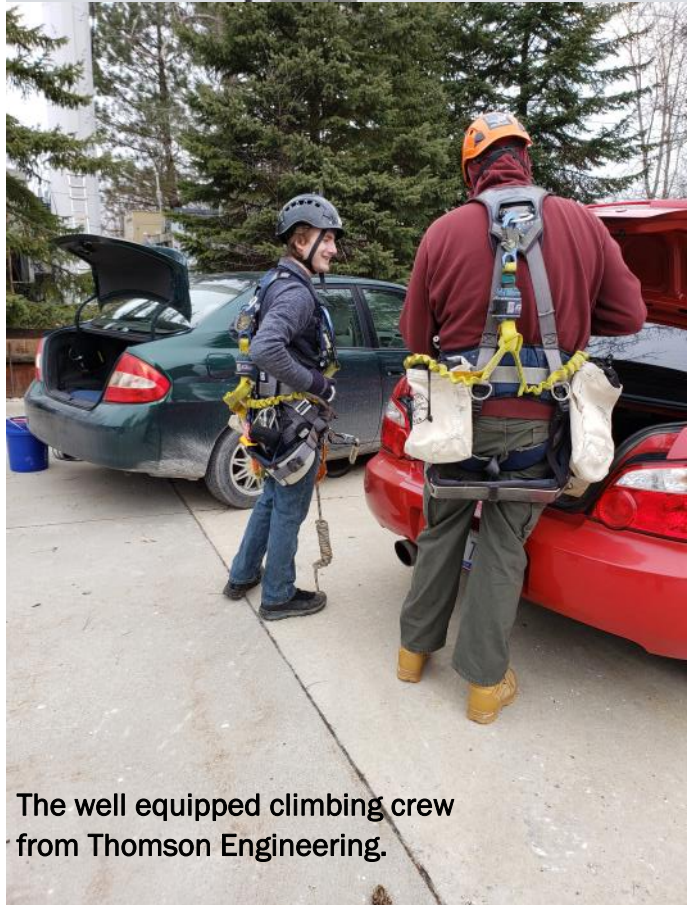
The 2M antenna at the top.



The 70cm (440) antenna at the lower level.



Photos taken by Dave / N8HUL



The well equipped climbing crew from Thomson Engineering.

How the National Bureau of Standards helped make “radio”

This was originally published as [“NIST’s Role in the Early Decades of Radio \(1911-1933\)”](#) on the National Institute of Science and Technology’s blog, [Taking Measure](#).....Dan / KB6NU

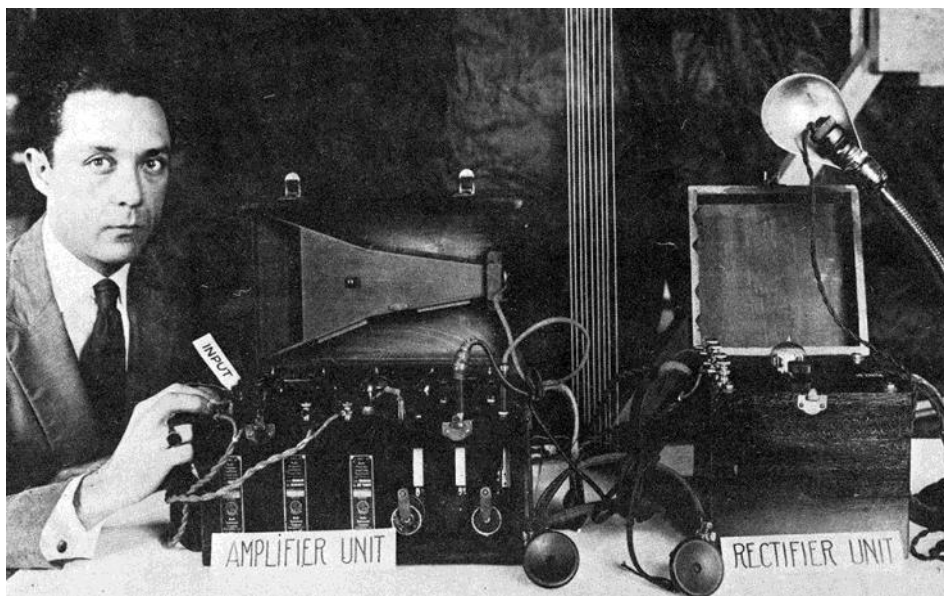
Even if you weren’t able to watch the recent Super Bowl on TV, you could still listen to the play-by-play commentary on the radio. But radio does more than just broadcasting sporting events or playing music. It plays a major role in emergency response, navigation and science.

The word “radio,” however, didn’t become part of our regular vocabulary until 1911, and it happened thanks in part to J. Howard Dellinger, a radio scientist at the National Bureau of Standards (NBS), the agency that became the National Institute of Standards and Technology (NIST). This came about when the second International Radiotelegraph Conference was being planned in London, and a professor sent Dellinger a paper that he was going to present to the conference for review.

At the time, “wireless” was used as the term for radio communication, especially by the British. However, NIST was charged with revising standards in preparation for the conference, and Dellinger suggested that the professor use “radio,” which was already becoming a popular word in the U.S., instead of “wireless.” The professor agreed, and the word “radio” went on to become the universally accepted term. Dellinger not only played a role in popularizing the word “radio,” but he also played a role in the first radio work done at NIST. A commercial company asked NIST to calibrate a wavemeter, a device developed by one of its engineers that measures electromagnetic waves like those of radio. Dellinger was known as the wireless expert and took on the project of calibrating the first radio instrument at NIST.

A New Type of Radio Receiver

But for radio to become mainstream, it first had to be commercialized, which began with its introduction into households. However, the challenge was building a radio set that used the electrical current, called alternating current (AC), which powered lights, fans and kitchen appliances when plugged into wall sockets. The predecessor to this technology was developed and patented by two researchers, Percival D. Lowell and Francis W. Dunmore, at NBS in 1922. They called their invention the “mousetrap.”



Percival Lowell with his patented radio set powered by alternating current. Credit: NIST

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The “mousetrap” was a receiver for a radio amplifier that could run on AC. This was considered a breakthrough because at that time radios were only able to be powered by direct current (DC) provided by batteries. These batteries were bulky and heavy, had to be charged from time to time and were considered dangerous because of the acid used in them. The researchers’ prototype meant the radio could be used in homes without causing damage and with the same performance quality.

Lowell and Dunmore filed two more patents together for other innovations, and for the “mousetrap” they sold the rights to the Dubilier Condenser Corporation. Little did they know that, because there was no uniform policy on patents issued to government employees, their actions would result in more than a decade of litigation over who legally had the rights to the patent.

While they were tied up in court, the Radio Corporation of America (RCA) developed its own model of the AC radio in 1926. Its model later became the first AC-powered radio sold to consumers.

Flying by Radio

During the early years of flight navigation, NIST was doing research to assist pilots while they were flying and landing. Pilots needed three things to get their bearings when flying “blind,” meaning it’s foggy, too dark or too cloudy to see. They needed to know the longitudinal position, altitude and speed of the aircraft, which were all achieved by various beacons installed in the plane. The remaining issue was that there were two frequencies the pilot constantly had to switch between the frequency that the Department of Commerce used to send weather information to planes and ships, which sometimes caused interference for pilots, and the frequency the radio beacon operated on, which gave altitude and other information.

Dunmore created a prototype, but Harry Diamond, a radio engineer who joined NIST in 1927, completed the device, called the radio guidance system. Diamond solved the problem by developing a separate device that allowed for voice communication to the pilot without receiving any outside interference from ships’ radios.

A Curtiss Fledgling, a trainer aircraft developed for the U.S. Navy, was equipped with the device, and flight tests were performed between NIST’s experimental air station at College Park, Maryland, and Newark Airport in New Jersey in foggy weather. After a series of successful tests were performed, the device was turned over to be used by the Department of Commerce in 1933.

Praise From a Famous Inventor

While mostly intended for serious users, some of NIST’s journals and publications were popular with the public. One such book, titled *The Principles Underlying Radio Communication*, covered topics such as elementary electricity, radio circuits and electromagnetic waves and was also published as a textbook for soldiers in the U.S. Army. The famous inventor Thomas Edison received a copy from NIST and wrote a letter thanking the first director, Samuel W. Stratton, for publishing it, saying it was “the greatest book on this subject that I have ever read.”

As these and other examples show, NIST had a significant influence on radio research between 1911 and 1933. However, NIST’s radio work didn’t end with the first blind landing. NIST would continue to contribute to the field leading up to and during World War II, and research continues to this day in areas such as 5G, public safety communications and spectrum sharing.

ABOUT THE AUTHOR

Alex Boss is a general assignment writer in the NIST Public Affairs Office and covers standard reference materials (SRM). She has a B.S. in biology from Rhodes College and an M.A. in health and medical journalism from the University of Georgia.

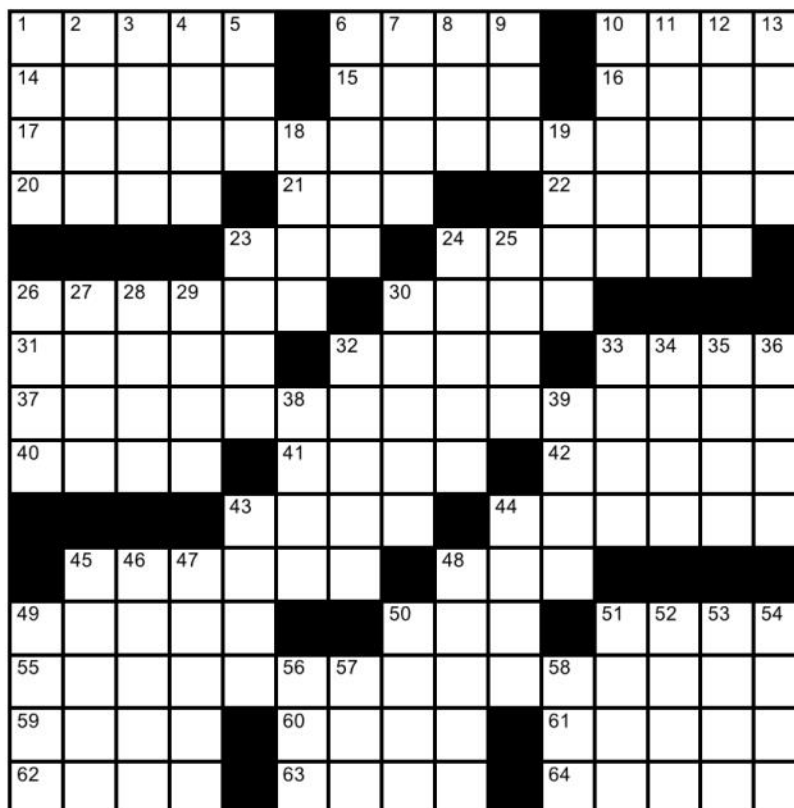


Aerial View

By [Chris Codella, W2PA](#) 2/9/2008

Across

1. 10 kilogauss
6. UA parliament
10. Kludge
14. Kind of socket or tube
15. Ancient OA-lander
16. Competent
17. Improbable dream
VHF/UHF antenna
20. Achy, as after an
antenna project
21. Transceiver knob label
22. Part connections
23. Ckt.between IF and AF
24. Suffix with bio- or
proto-
26. Loud speaker
30. Eye part
31. US hams do it every 10
years, usually
32. "That's great, friend", on
CW
33. Be next to
37. What rural hams fancy
themselves?
40. Feedline badness
41. Baseball stats
42. Symbol in coax specs
43. Go out of your cell area
44. Unidirectional dipole
45. Where all good signals
go, eventually?
48. Late summer contest
49. Tribander parts
50. Kind of FET
51. They have replaced
tuning dials in modern rigs,
often.
55. Improbable dream HF
antenna
59. K, on phone
60. Elser-Mathes Cup target
61. Look of disdain
62. One meaning of V
63. Switch type
64. They deliver power



Down

1. Narrowest tower sections,
often
2. EME signal
3. Sirius, for one
4. Emit coherent light
5. Draft pick
6. One's self, on CW
7. Ampere, for one
8. Lots and lots of Hz in the
old days
9. Word to a doctor
10. Bugs, Roger, Peter, et.
al.
11. Garfield's middle name
12. Copper often does it
13. Enables, as a transmitter
18. Kind of hunter, in radio
19. Word of regret
23. "See you ____ the log"
24. Univ. teachers
25. Kilo follower
26. Not written
27. W7-land city
28. What this puzzle is
about, for short
29. Connectors named for
their shape
30. Italian yagi?
32. One C per V
33. BBs, e.g.
34. E, to a non-ham?
35. Encourage
36. Bygone UA leader
38. It glows amber
39. Part
43. Sometimes causes
antenna failure
44. Window part, where the
feedline might come in
45. Group of trees
46. 5 wpm, 70 mph, etc.
47. Eyeball benders
48. Least good
49. Gait faster than a walk
50. QSLs often go via them
(abbr.)
51. Lead-ins to P
52. Future ham, sometimes
53. Became SK
54. Switching
semiconductors
56. RX spec.
57. Break, during a long
contest, say
58. Sig. src.

TC Editor says "When I printed this page, it was very clear.

Click [answers](#) and scroll down to see the solution.

Are you feeling an empty spot in your ham radio life since the Hamvention has been canceled for 2020? Here's an on-the-air HF radio activity announced just today, March 26, 2020. Now you have a radio activity to fill some of those hours on May 16th that the Hamvention cancellation freed up!

Hamvention QSO Party

From <https://wwrof.org/hamvention-qso-party/>

The Dayton Hamvention for 2020 has been cancelled. WWROF, in cooperation with the Hamvention organizers, wanted to create a fun way for people to celebrate the Hamvention experience over the air – the Hamvention QSO Party.

In memory of Ron, W8ILC, who became a silent key just two days after the Hamvention 2020 cancellation announcement. Ron had attended every Hamvention since the beginning.



This is a 12 hour fun event on Saturday of Hamvention May 16, 2020.

Object: To celebrate the Dayton Hamvention by working as many Amateur stations as possible during the QSO Party period.

Contest period: 8 AM to 8 PM EDST (1200 to 2400 UTC), May 16, 2020

Bands: 160, 80, 40, 20, 15, and 10 meters CW and SSB – You can work the same station once per band mode (12 QSOs possible with same station).

Exchange: Signal report and first year you attended Hamvention. If you have never attended Hamvention send “2020”.

Entry Categories: Only single operator entries – you may use assistance such as the cluster and the reverse beacon network (RBN). No self-spotting.

There are three power levels:

- QRP – no more than 5 watts
- Low Power – No more than 100 watts
- High Power – no more than 1500 watts.

Scoring: Score is number of QSOs + bonus points = final score. There are no multipliers.

Special bonus points:

To Enter: Post your score at 3830scores.com within 5 days of the event (May 21, 2020). No logs are required.

Awards: An online certificate will be available to all stations that post a score before the deadline.

Radio Amateurs Team Up to Help University Design Low-Cost Ventilator

From [ARRL News](#) 03/23/2020

Amateur radio volunteers from around the world have volunteered to assist University of Florida Professor Sam Lampotang and his engineering team in their quest to rapidly develop an open-source, low-cost patient ventilator that can be built anywhere from such commonly available components as PVC pipe and lawn-sprinkler valves. The amateur radio volunteers are developing Arduino-based control software that will set the respiratory rate and other key parameters in treating critically ill coronavirus victims.

Multiple volunteers responding to a call for help from Gordon Gibby, MD, KX4Z, included noted software developer Jack Purdum, W8TEE, and uBITX transceiver maker Ashhar Farhan, VU2ESE. University of Florida physicians are working to address the critical legal aspects as the design moves closer to fruition.

The ventilator's valves would precisely time compressed oxygen flow into patient breathing circuits under Arduino control, allowing exhausted patients with "stiff" lungs impacted by viral pneumonia to survive until their body can clear the infection. The software design team is also adding simple features such as an LCD display, encoders to choose parameters, and watchdog safety features.

Thanks to Gordon Gibby, KX4Z

Click on the picture to link to a short (11 seconds) YouTube video of the prototype in action.



Future Programs & Activities

Scott Hernalsteen, W8CQD — Activities Manager

- | | |
|---------------------|--|
| April 1, 2020 | NO Regular Meeting—COVID-19 closure & gathering restrictions! |
| April 18 & 19, 2020 | Michigan QSO Party — Maybe N8LC will operate at the Tucker Senior Center |
| May 6, 2020 | Regular Meeting |
| May 15-17, 2020 | Canceled for 2020—"Dayton" Hamvention in Xenia, OH |
| June 3, 2020 | Regular Meeting followed by annual Fox Hunt |
| June 27, 2020 | ARRL Field Day |
| August 1, 2020 | 16th Annual Mind Over Matter ALZ Cycling Event |
| September 2, 2020 | Regular Meeting |

L'Anse Creuse ARC Board Members – 2020

President

Scott Hernalsteen, W8CQD
40202 Vincenzia Dr
Clinton Twp, MI 48038-4084
586-201-5713
w8cqd@arrl.net

VP and President-Elect

John Slobodnik, N8NXW
79165 Omo Rd / PO Box 383
Armada, MI 48005
(586) 337-0045
jrslobodnik@hotmail.com

Secretary

Marty Folz, K8HVI
40360 Ryan Rd
Sterling Heights, MI 48310-1756
586-268-0544
k8hvi@arrl.net

Treasurer

Gregg Crump, N8GEO
29729 South River Rd
Harrison Twp, MI 48045-3030
(586) 477-0364
n8geo@arrl.net

ARRL Liaison

Gregg Crump, N8GEO
29729 South River Rd
Harrison Twp, MI 48045-3030
(586) 477-0364
n8geo@arrl.net

Activities Manager

Scott Hernalsteen, W8CQD
40202 Vincenzia Dr
Clinton Twp, MI 48038-4084
586-201-5713
w8cqd@arrl.net

Past President

Ken Janicki, KD8RJN
55775 Nile Way
Macomb, MI 48042-6188
(586) 786-1408
kenjanicki@comcast.net

Technical Officer

Doug Chauvin, N8PYN
29112 Elmwood St.
St Clair Shores, MI 48082
(586) 775-1891
n8pyn@yahoo.com

Analog FM



LC Echo 2 Meter Repeater
Yaesu DR-1X 147.080 MHz
100 HZ PL

Fusion Digital Only



LC Echo 440 Repeater
Yaesu DR-1X 442.925 MHz
100 HZ PL

Board Meeting Time and Location

Board Meetings are held at 7 pm on the Wednesday after the regular membership meeting in September, November, January, March, and May. The location is [Roseann's Kitchen, 21400 15 Mile Road](#), Clinton Charter Township, MI. All club members are welcome to attend and have dinner. Talk-in through the LCARC ECHO 2 Meter repeater (147.080 MHz, +600 KHZ, 100 Hz PL tone). Should a board meeting have a planned cancellation, this cancellation will be announced in the newsletter.

Club Founder - Art Ellis W8PBO

Club Committee Chairmen

ARRL HF Awards Manager	Tom Mathison	WU8C	Little Bay Awards	Dale McGorman	K8RO
ARRL HF Awards Assistant	Vince Cuker	WA8BIJ	Meeting Refreshments	Russ John	N8HAR N8NXW
ARRL VHF/UHF Awards Manager	Allan Koch	KA8JJN	Membership Chairman TC email distribution	John Huber	N8FYL
Call Sign ID Tags	Gregg Crump	N8GEO	Net Points Manager	Tom Mathison	WU8C
Christmas Party	Cathy Chauvin	KC8WNK	Net Points Upgrade Awards	Clem Duval	W8VO
Club Apparel & Patches	Scott Hernalsteen	W8CQD	TC Postal Distribution	John Huber	N8FYL
Club Call Trustee - N8LC	Marty Folz	K8HVI	Outgoing QSL Manager	Dale McGorman	K8RO
Code Proficiency Awards	Vince Cuker	WA8BIJ	QSL Cards	Dale McGorman	K8RO
Dayton Trip	Gregg Crump	N8GEO	Swap Chairman	Russ Price	N8HAR
Door Prizes—Buyer	Doug Chauvin	N8PYN	<i>Tuned Circuit</i> Editor	John Huber	N8FYL
Door Prizes—Tickets	Wayne Hearn	WG8U	Volunteer Exams	Gregg Crump	N8GEO
Echo Repeater Trustee	Marty Folz	K8HVI	Webpage (n8lc.org)	Doug Chauvin	N8PYN
Field Day	Gregg Crump	N8GEO	Webpage Assistant	Marty Folz	K8HVI
Health & Welfare			Youth Forum (50/50) [Alternate]	Ralph Irish John Slobodnik	W8ROI N8NXW
Licensing Classes	TBD				

The Tuned Circuit

This publication of the L'Anse Creuse Amateur Radio Club is issued for the months of September through June of each year. *The Tuned Circuit* has been formatted to be read easily with any reader programs for our visually impaired readers; however, an audio tape or a larger print version of its contents will be made available, upon request to the editor. We welcome any comments, concerns, corrections, congratulations, or complaints. Please submit such communications to the [Editor](#):

John H. Huber N8FYL

Email: n8fyl@arrl.net or editor@n8lc.org

Phone: (248) 740-2693

Submissions will be accepted in any of the standard PC formats. Microsoft Office, Open Office, plain text, rich text, PDFs, and any type of image format. Unfortunately audio files and movies cannot be accepted, as they cannot be reproduced on paper, but links can be reproduced to these types of media if you'd like to provide a link.

VE Testing Locations

Ann Arbor (ARROW): Mark Goodwin, W8FSA, w8fsa@arrl.net, 734-930-6564. Second Saturday of each month.

Hazel Park—Jerry Begel, W9NPI, w9npi@arrl.net 248-543-2284

First Tuesdays of Even Months.

Howell ([Livingston Amateur Radio Klub](#))
Second Tuesday of each month, 7PM, at the Livingston County EMS Facility, 1911 Tooley Road, Howell, MI. ALL AMATEUR EXAMS AT THESE SESSIONS ARE FREE.

LCARC

June 15, 2020 at 6:00 PM,
August 17, 2020 at 6:00 PM
December 6, 2020 at our swap

Motor City 313-676-6284

USECA <http://usecaarc.com/test/>

1st Monday Monthly except during the months of July and August at 7 pm at [Macomb County Emergency Management & Communications, 21930 Dunham Rd, Mt. Clemens MI.](#)

Online Practice Exams:

<https://www.eham.net/exams>

<https://www.qrz.com/hamtest/>

<http://www.ah0a.org/AHOA.html>

Morse Code Resources:

Learn CW Online <https://lcwo.net/>

<http://www.g4fon.net>

<http://www.pdarrrl.org/k6rau/>

<http://www.ac6v.com/morseaids.htm>

<http://morsecodemasters.com/trainer/Examples/hct.html>



Upcoming Swaps

04/11/2020 | **CANCELED Crossroads Hamfest**

Location: Kalamazoo, MI

Type: ARRL Hamfest

Sponsor: Southern Michigan Amateur Radio Society

Website: <https://www.w8df.com>

04/19/2020 | **CANCELED 3rd Annual Technology Expo** (GM Club)

Location: Madison Heights, MI

Type: ARRL Hamfest

Sponsor: GM Amateur Radio Club

Website: <http://www.gmarc.org>

[Learn More](#)

05/02/2020 - **CANCELED Cadillac Hamfest**

Location: Cadillac, MI

Type: ARRL Hamfest

Sponsor: Wexaukee Amateur Radio Club

Website: <http://www.wexaukeearc.org>

[Learn More](#)

05/15/2020 | **CANCELED 2020 Dayton Hamvention**

Location: Xenia, OH

Type: ARRL Hamfest

Sponsor: Dayton Amateur Radio Association

Website: <http://www.hamvention.org>

06/07/2020 | **Chelsea Amateur Radio Swapmeet**

Location: Chelsea Fairgrounds, Chelsea, MI

Type: Hamfest

Sponsor: Chelsea Amateur Radio Club

Website: <http://wd8iel.com>

[Learn More](#)

06/21/2020 - **Monroe Hamfest**

Location: Monroe, MI

Type: ARRL Hamfest

Sponsor: Monroe County Radio Communications Association

Website: <http://mcrcra.org/>

[Learn More](#)

07/18-19/2020 - **Vintage Electronics Expo**

Location: [Burton Manor, 27777 Schoolcraft, Livonia, MI 48150](#)

Type: Vintage electronics

Sponsor: Michigan Antique Radio Club

[Learn More](#)

07/25/2020 - **Gladwin Area ARC Hamfest**

Location: Gladwin, MI

Type: ARRL Hamfest

Sponsor: Gladwin Area Amateur Radio Club

[Learn More](#)

L'Anse Creuse Amateur Radio Club Nets

Day	Local Time	Band	Mode	Frequency	Net Control	Calendar
Monday	2000	15 M	CW	21.165 MHz	Clem, W8VO	Every Monday
Monday	2030	15 M	USB	21.395 MHz	Wayne, WG8U	Every Monday
Monday	2100	6 M	USB	50.160 MHz	Gregg, N8GEO	Every Monday
Tuesday	2000	2 M	Packet	144.93 MHz	TBD—Net is QRT	Every Tuesday (Connect to detqso)
Thursday	1930	10 M	USB	28.435 MHz	Clem, W8VO	Every Thursday
Thursday	2030	2 M	FM	147.08+ MHz	Clem, W8VO	1st Thursday
					Wayne, WG8U	2nd Thursday
					Gregg, N8GEO	3rd Thursday
					Mike, AC8ER	4th Thursday
					Fritz, KE8BFW	5th Thursday

Membership Request

Date: ____/____/____

Request For:

____ \$20.00 LCARC Individual Membership
Are you a New Member? (Y / N)

____ \$30.00 LCARC Family Membership

____ \$10.00 Print and Mail me *The Tuned Circuit* via US Mail

____ \$2.00 LCARC Student Membership (Under 18 years of age)

____ \$10.00 Club Badge created with my Name and Call sign

____ Please update my membership information because it has changed.

Call sign: _____ Old Call Sign: _____ Street: _____

Name: _____ City: _____ State: _____

Spouse: _____ Zip: _____ - _____ 6 Character Grid Square (optional): _____

Phone: (_____) _____ - _____ Email Address: _____

(Please indicate your name above even if it hasn't changed, so we know who's giving us money and can mark that you've paid in our records.)

L'Anse Creuse Amateur Radio Club

Gregg Crump, N8GEO

29729 South River Rd

Harrison Twp MI 48045-3030

Only membership applications to go this address.. Make sure you use the full 9 digit zip code when mailing in your application.

Treasurers Box

Date Paid: _____

Amount: _____

Initials: _____

Note: LCARC dues are from **Nov 1st** to **Oct 31st**

Class License (Circle One)

Novice Technician Tech+

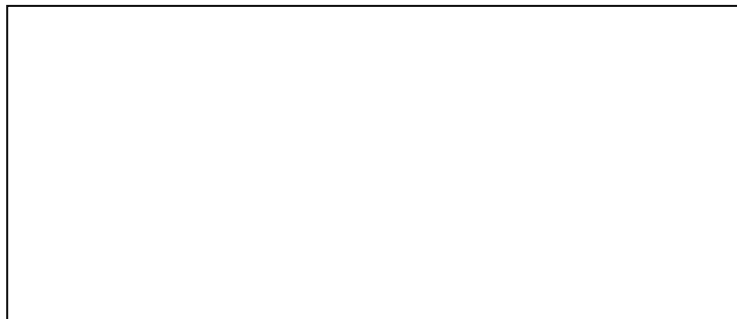
General Advanced Extra

I am an ARRL Member: (Y / N / Life)

The Tuned Circuit

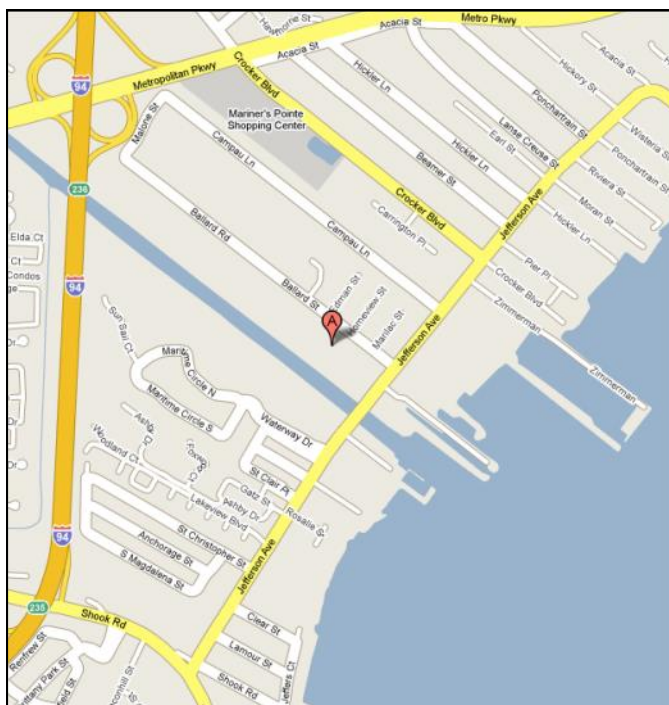
**Monthly Bulletin of the
L'Anse Creuse Amateur Radio Club**
29729 South River Rd
Harrison Twp, MI 48045-3030

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<http://www.n8lc.org>

E-mail: info@n8lc.org



The L'Anse Creuse Amateur Radio Club meets at 7:00 pm the first Wednesday of each month, except during July and August. Meetings are held at Tucker Senior Center located at 26980 Ballard St, Harrison Township, MI 48045 unless indicated otherwise in the most current issue of the Tuned Circuit. Call-in on the Echo Repeater (N8LC) on 147.08 MHz (+ 600 KHz, 100 Hz PL tone) for any meeting information, or to ask a member for the location of the meeting.