THE TUNED CIRCUIT

Volume 41, Number 2, October 2020

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

| INSIDE THIS ISSUE: | THE PREZ SEZ | | | |
|--|---|--|--|--|
| October Meeting Program | I hope everyone has had as good a summer as possible – it has certainly been different than any summer I remember! | | | |
| <u>The Secretary's Report</u> Mamharchit Ratart | The Tech Committee is moving forward with the improvements to the repeater antennas. Fortunately COVID hasn't derailed those plans! | | | |
| <u>Membership Kepori</u> <u>Future Programs</u> <u>Upcoming Swaps</u> Club Nets | We were going to have an in-person meeting in October, as the Tucker Center is open. However, a scheduling SNAFU has meant it is not available for us. As a result, the meeting will be some kind of alternative format – either repeater, or video of some fashion. Watch your emails for more details as the day gets closer! | | | |
| November TC | We had originally delayed the Fox Hunt until after summer. Considering the continuing situation and the days getting shorter, the Fox Hunt will be cancelled for this year. | | | |
| Deadline: Monday October 26th | At the last board meeting we had some discussion regarding the Christmas Party. It is possible that could still be arranged, the question is do you want to try and arrange one? Please let the board members know your thoughts on this – sooner rather than later! | | | |
| | We also received word that the UFCW hall has cancelled all remaining events for this year – which unfortunately includes our swap. There has been some discussion into an alternative, but we will need a volunteer to co-ordinate it. | | | |
| | I am hoping you and your families are all doing well. Please get your flu shots, and stay healthy! | | | |
| Next Meeting - To Be Determined | 73! | | | |
| Meeting Program - The program for | Scott/W8CQD | | | |
| our meeting will be as reported on page 5! | The we were 't he are in reasons | | | |
| | Inere won't be an in-person | | | |
| The NEXT board meeting might be on Wednesday, November 11th, 2020. | October meeting. | | | |

Report of the Secretary

by Marty / K8HVI

There was NO September meeting; thus there are no minutes to report.



Meeting Call to Order:

The LCARC President (Scott/W8CQD) called the September 9th, 2020 LCARC board meeting to order at 7:27 PM. Meeting at W8CQD QTH.

Present were: Scott/W8CQD, Gregg/N8GEO, Doug/N8PYN, Marty/K8HVI, Cathy/KC8WNK, John/N8NXW.

Gregg stated that he ordered the new repeater antennas.

The board agreed to hold an in-person meeting in October where we will have to follow the building's COVID policy (i.e. bring your face masks). We will not do any food or drinks. We will not hold the fox hunt which was delayed earlier from June.

The board agreed to honor Wayne Hearn / WG8U, who recently became a silent key, by sending a donation of \$50 in his name to the Dayton Hamvention Youth Forum (led by Carole Perry WB2MGP)

Since our swap was cancelled, it was brought up that maybe we could have a trunk swap instead. We will bring it up at the general club meeting to see the level of interest.

It was brought up about whether to hold the club Christmas Party in December. We will bring it up at the general club meeting to see the level of interest.

Marty brought up that we should add a new item on the Tuned Circuit's Club Net page for the Sterling Heights Community Emergency Response Team's monthly radio net which is held on our 147.08mhz repeater. It occurs on the 2nd Tuesday of every month at 9pm. The TC editor will be notified of the request.

Gregg stated that he and Mark/N8REZ will be performing some maintenance on the roof of the repeater building on Oct. 10th weekend. They will be putting a sealing coat on the roof.

It was agreed that the club's Night on the Town dinners will not be held at least through January 2021.

Meeting adjourned at 8:02pm



Several members of the K1USN Radio Club, who are also members of the <u>CW Operators' Club (CWops)</u>, have started a new one-hour *slow speed* CW "contest," the SST.

For those who prefer a more leisurely CW pace or are new CW operators or contesters, this just might be what you're looking for!

The Date and Time for the weekly SST: 00:00-01:00 UTC Mondays which is: 20:00-21:00 (8-9pm) US EDT Sundays

KIUSN SST Weekly CW Slow Speed [Con]Test

See <u>http://www.k1usn.com/sst</u> for all the details.

NO IN-PERSON OCTOBER MEETING!!!

09/28/2020 21:57 - There won't be an in-person meeting this month. Scott / W8CQD

NO October in-person meeting

Membership Report

The pre-filled L'Anse Creuse membership renewal form was emailed on September 20th. This year we all have to mail the forms and our dues to the treasurer since an in person meeting looks to be unlikely in the near future.

As of today, 16 renewals have been received, and 14 of those used the form I provided. The other two had already sent in their renewal using the request form printed in *The Tuned Circuit*.

The membership numbers decreased by one due to the passing of <u>Wayne/WG8U</u>. According to records I have, Wayne was a member of L'Anse Creuse since 1995.

We are at 69 members. 9 are life members, and 61 are regular members, of which 4 are enjoying the final months of the first year free experience.

John / N8FYL - 9/29/2020





End Fed Half Wave Antenna Installation and Review

By: Carl Davis, W8WZ

It all started because Field Day was cancelled.

Due to the Corona virus social distancing protocols the Raleigh Amateur Radio Society had to cancel our annual group Field Day effort in 2020. Instead, RARS encouraged each member to operate during Field Day from his or her own home. That led me to think about how I would operate. I decided it would be a good time to test out and use my new generator. Then I decided that instead of just operating from my shack I might like to spend some time operating from the back porch. Then I decided it might be nice to regularly operate from the back porch. That meant that I needed an antenna that I could use from the back porch. The two HF antennas I had at the time were both inverted Vees fed with ladder line. One is cut for 80 meters and fed with open wire 6000hm feeders and is up 100 feet at its apex. The other is a total of 100 feet long and center fed with commercial 4500hm window line. That antenna is up at an apex of about 70 feet. Neither one could be easily accessed from the back porch because getting the feedlines into the station took a good bit of work and I did not want to mess with them now that they were set up. This meant that the solution would be a third antenna.

My city lot is small but it abuts a woods and I have a few 100 feet tall trees (oaks and pines) in the back of my yard that make great antenna hangers. But since I already have two full size HF antennas in the yard, I was limited for third antenna options. I do not have any deed covenant restrictions or restrictive zoning. However, I am particular about the appearance of my yard and did not want an antenna that would particularly draw attention to itself. I first considered a vertical that could fit in an open space behind my shed. I have used verticals in the past and found them to be fine antennas. However, I decided against that option in this case because for Field Day (and other nets I participate in on 80 meters) I wanted my 80-meter ground wave signal to be horizontally polarized as much as possible because verticals don't do a great job of allowing us to work nearby stations on 80 meters and I wanted to do that for Field Day and nets.

That is when I began to look at the end fed antennas that have gained popularity in recent years. I talked with several friends who use them and read several different articles about them. My fellow QCWA Piedmont Chapter 126 weekly 75-meter net participants were very helpful in sharing their experiences. I had never really been that excited about them in the past. In college I end fed a random wire that I threw out the window into some trees and used the dorm room radiator as ground. That resulted in some fun contacts and also in a lot of RF in the "shack". I also questioned the efficiency and power handling abilities of the toroid matching systems I saw being used in these new antennas. But, I thought this might be a good opportunity to try something new. So I decided to go that route.

I looked at several different end fed antenna options. Some require the use of a long coax feedline. I decided against those options thinking that meant that they don't really have a good match at their feed point and are using a section of lossy coax to hide that bad match from the SWR meter at the transmitter or they are prone to excessive common mode current issues and using long coax to try and minimize that problem. I also stayed away from designs that said coax feed line length had to be a certain length based on wavelength. That made me think that they were using the feedline as part of the antenna system's matching process and that it would also radiate. I didn't want that. Some designs said that a tuner will be needed. I do not like using coax at high SWR under any circumstances. Even the best coax has unacceptable loss when SWR is high. For high SWR situations I only use ladder line. So I discarded any antenna that said a tuner would be needed. I also wanted an antenna that could handle legal limit power. Even though I would not be using more than 100 Watts for Field Day, I wanted the option to use my amplifier with the antenna in the future. (Continued from page 4)

Considering these criteria led me to the EFHW-8010 made by Myantennas.com <u>https://</u> <u>myantennas.com/wp/product/efhw-8010/</u> I ordered the antenna from their webpage and within a few days it was in my mailbox and ready for installation. The antenna appeared very well built and it was well packaged.

I considered the different ways this antenna can be mounted and I decided on an inverted L configuration. My thinking for this was based on the fact that I have tall vertical supports nearby and it is easier for me to go up than across on my property and that if I went horizontal at less than ½ of a wavelength my radiation angle would be unhelpfully high. While I want to make good local contacts on 80 meters, I did not want an NVIS system on any band higher than 80 meters. My plan was to go up 66 feet and then go horizontal for the remaining 66 feet. I wanted to run the horizontal section to the South so that my radiation lobes would go East/West. Since I live in North Carolina, an East/West pattern is nice as it covers both the rest of the United States as well as Europe. I thought this system should give me both vertical and horizontal radiation and the horizontal radiator will be adequately high for all bands except 80.

There was a 4"x4" fence post in my back yard in exactly the right spot behind the shed. So I drove an 8-foot ground rod into the ground at its base and mounted the antenna's matching section to that fence post. I then grounded it to the ground rod.

My friends AI (N4EII) and Mark (KM4JRH) came over with two potato guns, a bow and arrow, a sling shot, yards and yards of para cord and lots of fishing line. The installation began. The first shot was over an oak tree limb above the antenna to support the vertical portion of the inverted L. We thought it to be about 60 to 65 feet up. Al made the shot perfectly on the first try with his compressed air powered launcher. Once we got the wire into the tree we realized it was actually 80 feet up. We decided that was fine. Mark then went into the woods and found a tree at the correct height and distance to our South to support the horizontal section of the antenna. Al again made a perfect shot with his launcher. We discovered that it was best to attach 50lb test fishing line to the lightweight fishing line that his launcher used and then reel in the light weight line so that the 50lb test was over the tree. Then we could connect the Dacron para cord to the 50lb line and haul it up. Then we could attach the antenna to the para cord and raise the antenna. We learned that lesson on another antenna project we did that had much more comical results than this one. Once the antenna was in the trees as we desired it, we tied it off leaving plenty of slack in the system for trees to sway in the wind. Because this antenna is tied off in a woods where other people have access, I decided against using a weighted counterweight to support it as that may draw the attention of curious people. Instead I tied it off rather high on a tree where it is not noticeable.

So the finished antenna is an inverted L with an 80-foot vertical section and 50-foot horizontal section. The horizontal section runs from the North to the South at a height of 80 feet. The feed point is about 42 inches above ground and the antenna is grounded according to the manufacturer's instructions to a driven 8-foot ground rod just below the feed point. That ground rod is bonded to my house's ground system via buried #6 solid copper wire.

Next we hooked up the antenna analyzer. The antenna looked very good on the analyzer. Mark has a very nice Rig Expert analyzer that connects to his computer. We measured that antenna at the feed point and it looked very close to the way that the manufacturer's webpage said it should look. SWR is less than 2:1 on all amateur bands 80-10 except on 30 Meters where it is around 3:1 and needs the use of the radio's built in tuner and also on the area around 29 Mc which I do not use often. Then we put 100 feet of coax on the antenna and ran that to the back porch. The antenna looked the same there as it did at the feed point. I finally started to get excited about these end fed antennas.

(Continued on page 6)



| The data below is as it is measured | | | | | |
|-------------------------------------|----------------|----------------|--|--|--|
| at W8WZ: | | | | | |
| Frequency | SWR from | SWR | | | |
| | webpage | Measured | | | |
| 3.57 | 1.63 | 1.2 | | | |
| 7.06 | 1.32 | 1.8 | | | |
| 10.73 | 1.05 | Not a ham band | | | |
| 10.10 | Not on webpage | 3.1 | | | |
| 14.24 | 1.37 | 1:1 | | | |
| 18.10 | 1.71 | 1.7 | | | |
| 21.32 | 1.20 | 1.5 | | | |
| 24.94 | 1.32 | 1.2 | | | |
| 28.20 | 1.44 | 1.5 | | | |
| 29.00 | 1.95 | 3.5 | | | |

I will note that I can go as far into the phone band on 75 meters as 3.855 Mc before the SWR goes above 2:1. The company makes a different antenna that is designed for the 75-

meter phone band. I chose the model that is designed for the 80 meter CW band as I operate there more often. On 40 Meters (the band I use most) the SWR is 1.8:1 on 7Mc. It is 1.7:1 on 7.028Mc (my favorite frequency to rag chew on) and 1.3:1 up in the phone section.

After I knew that I could effectively couple RF into the wire I wanted to know how it actually performed. So the next day I patched together 200 feet of cheap RG58 Coax that I had laying around for use at Field Day or other portable set ups and brought the antenna feedline up into my radio shack. I put it on an A/B coax switch and compared it against the inverted Vee at 70 feet. It compared very favorably. Sometimes the End Fed was better and sometimes the Inverted Vee was better. There was no clear winner. The Inverted Vee often gave me higher signal strengths but a less desirable signal to noise ratio than the End Fed gave. Other times one was clearly better.

I decided to call CQ on 40 CW on both antennas and see what numbers the Reverse Beacon Network system gave me. Here are the results of that initial test. As you can see, they matched my observation that there was no clear winner.

| RBN Station | EFHW | INV VEE | 0 |
|--------------------|------|---------|------------------------------|
| W1NT/6 | 14 | 37 | p |
| WE9V | 24 | 20 | t |
| K9TM-4 | 8 | 0 | $\left {t \atop t} \right $ |
| KQ8M | 19 | 20 | С |
| K2DB | 13 | 0 | s |

Saying that the new antenna is at least equal to the old one was great news because my old antenna is a very solid performer. The new antenna has an advantage beyond its actual performance too, namely; ease of use. The Inverted Vee fed with ladder line requires me to adjust the tuner and sometimes the amplifier load control whenever I change frequencies. While this is not a hardship for most operations, it does slow me down in contests. I estimate that it costs me 1 to 2 QSOs every time I need to change bands based on my average

QSO rate. It was also much easier to install than a dipole (even a dipole hung as an Inverted V. Also the ability to use coax as a feedline allows me to run the feedline in ways I cannot run the ladder line and to use a polyphaser for lightening protection with great ease.

(Continued on page 7)

(Continued from page 6)

So, I decided that I did not want to only be able to use this new antenna from the back porch. Instead I wanted to have access to it both on the porch and in the main shack. That meant finding the best coax feedline for this antenna. I wanted a feedline that was low loss, could handle full power, could be buried and would be UV resistant. I decided on the DX Engineering 400Max coax as the best way to meet those requirements. I also ordered a polyphaser lightening arrestor from DX Engineering at the same time.

My friend Ken (AD4GX) came over with a gas powered edger and dug a trench from the antenna feed point across the back yard to the house. In that trench we buried the ground wire that bonded the antenna ground to the house ground and the direct burial coax.

The coax comes out of the ground at the house where it connects to a polyphaser that is grounded at the house ground. Then another section of coax takes it to an A/B switch mounted (along with the polyphaser) on the side of the house inside of a water proof box that has a hinged door on it. 2-inch copper strap from Georgia copper connects the polyphaser to the ground rod. I can open the box, and switch between A and B. Side A allows me to connect a run of coax and sit on the back porch to operate. Side B connects to more DX Engineering 400 coax that is mounted to the side of the house and goes up into my radio shack.

To get the coax into the radio shack, I used a simple and inexpensive method. I cut a 2x4 the length of the window and set it in the window sill. I then shut the window on top of it and painted it to match the window. I drilled a hole in the 2x4 and put the coax through the hole. I also ran a heavy duty extension cord through the hole and ran it next to the coax to the back porch through next to the coax. That allows me to plug my generator in to that extension cord easily. That way when the power goes out I can simply put the generator on the back porch and plug it in. Then plug my station into the extension cord instead of the wall outlet. This allows me to get on generator back up quickly and avoids the need to run extension cords out of windows during a bad storm. I used this power set up for Field Day and operated as 1 E. I then caulked around the board and the window and filled the hole in with caulking around the coax and the extension cord.

If I was only able to have one of my 3 HF antennas. I would choose to keep this one. It performs very comparably to the Inverted Vs that I have and it is automatically band switching. It is less visible from the street than my inverted Vs and is easier to install. It also works better on 10-meter ground wave for our local nets than any of my other antennas do. I suggest getting the high powered version of the antenna as I did as it is nice to have the ability to use the amplifier with it. While this antenna can work in many different configurations, I believe the Inverted L is a good way to use it because it allows the benefit of feeding it near the ground and still allows you to keep good radiation angles on all the bands.

Many thanks to KM4JRH, N4EII and AD4GX for their many hours of hard work helping me get this antenna operational. Also thanks to N4TL who helped me figure out the best way to ground the station by sharing a great video about grounding and to K4HF who shared information with me about EFHW antennas when I was deciding which one to purchase.

All this started because Field Day was cancelled. Every cloud has a silver lining!

I used this set up with great success for Field Day coming in with a score of 1258 points which is pretty good for me working 1E (all CW). I have also used it in many CWT mini contests on Wednesdays and it works very well. I use it on local nets and to work DX. If I could just have one antenna this would be it.

(Continued from page 7)



Picture 1 – The Antenna's location.

This picture shows where the antenna is mounted. As you can see it is not easily viewed at all. Even though I do not have any HOA or restriction issues. I think this antenna could be used in an environment where such concerns exist with great effect. The antenna is mounted on a fence post behind the tree shown just to the left of the tool shed. That tree provides the vertical support.

Picture 2 – The antenna mounted on the fence post

This fence post is behind the tree in picture one. You can see the ground rod at its base. The coax is buried along with the ground wire bonding that rod to the house. The wire goes up 80 feet supported by the tree before going horizontal.

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Picture 3 – The buried feed line and ground wire

Here you can see the trench that AD4GX dug with the machine in the picture and the coax temporarily suspended above the ground before we put it into the trench. Within a week the grass had grown over the trench and there is no sign of it now. You can also see the 600 ohm feeders from one of my other antennas in the upper right of the picture. That is suspended at an elevation of 10 feet across the back yard.

Picture 5 – KM4JRH working on the waterproof junction box for the polyphaser and the coax switch that allows me to use the antenna on either the porch or in the radio shack.



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Picture 6 – The coax and electric cords mounted on the side of the house going into the radio shack. You can also see the open wire and ladder line feeders coming in.



Wayne / WG8U-Silent Key

Wayne was admitted to Mt.Clemens Mclaren hospital on Friday, August 28th after having digestive issues. He passed away on August 31 around 6:30 PM.

Ralph / W8ROI shared the following on the LcRadioClub on groups.io:

Knowing Wayne was a great experience.

Back when the club had a large monthly distribution of the Tuned Circuit, Wayne and his wife, along with volunteers, would assemble the newsletter, seal it, affix the ink stamp that covered the Bulk Mail permit, and then put everything in Zip Code order to be taken to the post office. I suspect that there may have been a few months when it was just Wayne and Coralie doing the work.

Knowing I was interested in Teletype, Wayne offered me a large machine that had sat in his basement for several years. It came from some Telephone company Test Bench. It was replaced with a newer, faster model. They were going to trash it so Wayne got permission to take it home. He never got around to using it on the air and it became a dust collector. At the time he offered it to me, I had absolutely no room for it or I would have been most happy to have it. I did find someone who was interested in owning it. I think that he and Wayne agreed on \$100 for it. That was a very reasonable price at that time. It had 'low hours' as an occasional place for telephone company technicians to send test results. Like many other things, technology passed it by and it became obsolete for its intended use. After we got the machine disassembled and packed into my friend's car, Wayne insisted that I take some money as a finder's fee. I told him I was just happy that the machine found a user and did not end up out at the curb where he lived. An absolute gentleman and a credit to our hobby. His voice will be missed on the various

An absolute gentleman and a credit to our hobby. His voice will be missed on the various nets that he either was Net Control, or merely participated in. And, Wayne himself will also be missed.

R.I.P. Wayne

Ralph - W8ROI

Future Programs & Activities

- Scott Hernalsteen, W8CQD Activities Manager
- October 7, 2020 Regular meeting night, BUT no in-person meeting.
- November 4, 2020 Regular meeting night
- November 7, 2020 ARRL Sweepstakes contest-CW
- November 21, 2020 ARRL Sweepstakes contest-SSB
- December 2, 2020 Regular meeting night
- January 6, 2021 Regular meeting night

L'Anse Creuse ARC Board Members – 2020

President

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

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Analog FM

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Technical Officer

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

N8LC

Fusion Digital Only



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 <u>Roseann's Kitchen</u>, <u>21400 15 Mile</u> <u>Road</u>, 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 | K8R0 |
|--------------------------------|----------------------|--------|--|-------------------------------|----------------|
| 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 | W8V0 |
| Club Apparel & Patches | Scott Hernalsteen | W8CQD | TC Postal Distribution | John Huber | N8FYL |
| Club Call Trustee - N8LC | Marty Folz | K8HVI | Outgoing QSL Manager | Dale McGorman | K8R0 |
| Code Proficiency Awards | Vince Cuker | WA8BIJ | QSL Cards | Dale McGorman | K8R0 |
| Dayton Trip | Gregg Crump | N8GEO | Swap Chairman | Russ Price | N8HAR |
| Door Prizes-Buyer | Doug Chauvin | N8PYN | Tuned Circuit Editor | John Huber | N8FYL |
| Door Prizes—Tickets | TBD | | Volunteer Exams | Gregg Crump | N8GEO |
| Echo Repeater Trustee | Marty Folz | K8HVI | Webpage (<u>n8lc.org</u>) | 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 <u>Editor</u>:

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, <u>w8fsa@arrl.net</u>, 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

Would have been December 6, 2020 at our swap , but the swap is canceled.

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 <u>Macomb County Emergency Manage-</u> <u>ment & Communications, 21930 Dun-</u> <u>ham Rd, Mt. Clemens MI</u>.

Online Practice Exams:

https://www.eham.net/exams

https://www.grz.com/hamtest/

http://www.ah0a.org/AH0A.html

Morse Code Resources:

Learn CW Online <u>https://lcwo.net/</u> http://www.g4fon.net

http://www.pdarrl.org/k6rau/

http://www.ac6v.com/morseaids.htm http://morsecodemasters.com/train

er/Examples/hct.html



Upcoming Swaps

10/18/2020 - CANCELED 38th Annual Kalamazoo

<u>Hamfest</u>

Location: Kalamazoo, MI Type: ARRL Hamfest Sponsor: Kalamazoo Amateur Radio Club & Southwest MI Amateur Radio Team

Website: http://KalamazooHamFest.com

Learn More

10/25/2020 - CANCELED U.S.E.C.A Hamfest

Location: Madison Heights, MI Type: ARRL Hamfest Sponsor: Utica Shelby Emergency Communication Association Website: <u>http://www.usecaarc.com</u> Learn More

11/14/2020 - 11/15/2020

CANCELED - Fort Wayne Hamfest & Computer Expo,

ARRL Central Division Convention

 Location: Fort Wayne, IN

 Type: ARRL Convention

 Sponsor: Allen County Amateur Radio Technical Society

 Website: http://www.fortwaynehamfest.com

12/06/2020 - CANCELED - LCARC Amateur Radio

<u>SwapHamfest</u>

Location: Madison Heights, MI Type: ARRL Hamfest Sponsor: L'Anse Creuse Amateur Radio Club Website: <u>http://www.n8lc.org</u>

Learn More

| L'Anse Creuse Amateur Radio Club Nets | | | | | | |
|---------------------------------------|-------|----------------|--------|-----------------------|---------------|---------------------|
| Day | Local | Band | Mode | Frequency | Net Control | Calendar |
| | Time | | | | | |
| Monday | 2000 | 15 M | CW | 21.165 MHz | Clem, W8VO | Every Monday |
| Monday | 2030 | 15 M | USB | 21.395 MHz | Clem, W8VO | Every Monday |
| Monday | 2100 | 6 M | USB | 50.160 MHz | Gregg, N8GEO | Every Monday |
| Tuesday | 2000 | 2 M | Packet | 144.93 MHz | RF Net is QRT | Every Tuesday |
| | | Internet | telnet | ve2har.dyndns.org | Ralph, W8ROI | (Connect to detqso) |
| Thursday | 1930 | 10 M | USB | 28.435 MHz | Clem, W8V0 | Every Thursday |
| | | | | | Clem, W8VO | 1st Thursday |
| | | | | | Mike, AC8ER | 2nd Thursday |
| Thursday | 2030 | 2 M | FM | 147.08+ MHz | Gregg, N8GEO | 3rd Thursday |
| | | | | | Mike, AC8ER | 4th Thursday |
| | | | | | Fritz, KE8BFW | 5th Thursday |

Membership Request

| Date: / / | L'Anse Creuse Amateur Radio Club | | Treasurers Box | |
|--|---|---|----------------------------------|--|
| Date:// | Gregg Crump, N8GEO | | Date Paid: | |
| Request For: | 29729 South River Rd | | Amount: | |
| 1 | Harrison Twp MI 48045-3030 | | Initials: | |
| \$20.00 LCARC Individual Membership Are you a New Member? (Y / N) | Only membership applications to go this addres use the full 9 digit zip code when mailing in you | s Make sure you ar application. | | |
| \$30.00 LCARC Family Membership | | | | |
| \$10.00 Print and Mail me The Tuned Circu. | Note: LCARC dues are from Nov 1st to Oct 31st Class License (Circle One) | | | |
| \$2.00 LCARC Student Membership (Under | r 18 years of age) | Novice Technician Tech+ General Advanced Extra | | |
| \$10.00 Club Badge created with my Name a | and Call sign | | | |
| Please update my membership information b | because it has changed. | I am an ARRL Member: (Y / N / Life) | | |
| Call sign: Old Call Sign: | Street: | | | |
| Name: | City: | | State: | |
| Spouse: | Zip: | _6 Character Grid | Square (optional): | |
| Phone: () H | Email Address: | | | |
| (Please indicate your name above even if it hasn | 't changed, so we know who's giving us more | ney and can mark t | hat you've paid in our records.) | |

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

First Class Postage + Extra Ounce





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 <u>26980 Ballard St. Harrison Township</u>. <u>MI 48045</u> 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.