

F.C.A.R.C. Inc.
P.O. Box 773
Greenfield, MA 01302



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THE COMMUNICATOR
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FCARC January 2021 Newsletter

Calendar

January 12th, Virtual Denny's Breakfast-see below for connection info

January 11th, Club Meeting via zoom, see below for connection info.

Brad W1BCC will be talking about qrz.com

January 28th, Submissions are due for the January issue of the Communicator.

February 8th, February Meeting.

From Aaron KF1G FCARC president

We will be having closed board meetings for the near future. But the board is eager for your feedback on items the board is dealing with.

The agenda for the next meeting is on my personal site <https://www.kf1g.net/agenda/> and will be updated as needed should new items come before the board. If you have feedback for the board on an agenda item please send it to me directly at rangerfriday@gmail.com by 6pm the Saturday before the board meeting, in January that will be the 9th. Please indicate the item your feedback is about, please note any feedback may become public information. If you need to make an anonymous submission please indicate that in the email to me and I will remove your email header from what I pass on to the rest of the board.

If you have any items you want the board to consider please email them to me at the above email address.

Thank you.

The Jan 11th Meeting invite is:

Topic: General Jan Meeting Time: Jan 11, 2021 07:00 PM Eastern Time

<https://umass-amherst.zoom.us/j/92477605308?pwd=OXFVVXB2QS9SVEZVZlc4bTd2amk3dz09>

Meeting ID: 924 7760 5308 Passcode: 729833

Franklin County Amateur Radio Club (FRARC) – Minutes

December 14, 2020

Board Members Present-

Aaron Addison KF1G - President

Howard Field N1LUP – Treasurer

Erika LaForme KC1IJJ – Secretary/Clerk

Jeanne Dodge KC1DCQ – Director
Board Members Absent –
Dick Merriott KC1JQJ – Vice President
Belle Dyer KB1NOG - Director

Board Meeting Notes :

Request for reimbursement to Erika for filing club's annual report with the state - \$18.50.
Aaron, motion to approve; Jeanne 2 nd ; vote unanimous.

Request to make club business more transparent. Proposal, to make club e-mails for each board position, instead of each board member, that way the archived e-mails stay with the club even when board members change. Aaron motion to accept proposal; Jeanne 2 nd ; vote unanimous.

Discussion about making the club website more user-friendly, both for management and member use. This has been discussed at several other meetings without any resolutions. Proposal, Aaron will move the website into WordPress, a popular, more user-friendly format. Al Woodhull, the current website manager, has 1. requested to cut back his duties and 2. stated he isn't familiar with WordPress, therefore, once the website is set up other club members will be asked to take over management (there are several with WordPress experience). Aaron, motion to accept proposal; Erika 2 nd ; vote unanimous.

Discussion regarding monthly newsletter. Jeanne, the former editor, who gave it up temporarily due to health issues, states she thinks she is able to resume her newsletter duties. Also discussed whether hand mailing copies of the newsletter is necessary at this time. Proposal, Jeanne will resume editing the monthly newsletter; the option to have newsletters mailed to home addresses will be removed from the website membership form; those receiving physical copies will be contacted to see if this is still necessary; the decision to mail physical copies of the newsletter will be done on a case-by-case basis.

Aaron, motion to accept proposal; Erika 2 nd ; vote unanimous.

Discussion regarding equipment donated to the club and outstanding club equipment. Proposal, club equipment will not be sold or disposed of without the knowledge and consent of the board. All proceeds from the sale of club equipment should be directed to the treasurer for deposit into the club's bank account. Aaron, motion to accept proposal; Jeanne 2 nd ; vote unanimous.

General Meeting Notes :

Present : Al N1AW, Alan , Anne N1YL, Aaron KF1G, Brad W1BCC, Chris KB1NEK, Ellen, Erika KC1IJJ, Jeff NT1K, Lad WA3EEC, Mark NX1K, Phillip K9HI, Richard KB1NOX, Scott N1LYW, Ted K3FEC

Aaron moderated a trivia contest for all – members and non-members, all levels. The questions were taken from the AARL exams and everyone competed based on their license level. Fun and learning were had by all.

The grand prize winners were:

Extra : Lad Nagurney WA3EEC and Mark Swartwout NX1K (Tied, despite a fierce run-off)

General : Ted Schiff K3FEC

Technician : Richard Stewart KB1NOX and Alan KC1OCT

Congratulations to all who played along.

Virtual Denny's Breakfast

Brad Councilman's Zoom Meeting

Time: Jan 9, 2021 08:30 AM Eastern Time (US and Canada)

Join Zoom Meeting

<https://zoom.us/j/95559773712?pwd=RnlpWmxubWNWbUlyWVZXU1FjYytMQT09>

Meeting ID: 955 5977 3712

Passcode: i34LkQ

Brad Councilman is inviting you to a scheduled Zoom meeting.

Topic: Brad Councilman's Zoom Meeting

Time: Jan 9, 2021 09:00 AM Eastern Time (US and Canada)

Join Zoom Meeting

<https://zoom.us/j/91505483409?pwd=U090cGNoNTZ0WmFBSWxVaFdwUy9mUT09>

Meeting ID: 915 0548 3409

Passcode: kF93D1

The North American QSO Party (CW/SSB) is in January

This contest is in 2 parts over 2 separate weekends—one for CW and one for SSB. Actually, there is a 3rd weekend in February for RTTY, but the rules are pretty much the same for all of them. This would be a good one to do a bit of DX collecting—because the world will be trying to contact US!! And it repeats in the summer, so you can get some summer contesting in too!

Some differences from other contests:

- This is a barefoot contest—no amplifiers!! You are either QRP (<5w) or low power (100w). Anything above will be a check log.
- The multipliers are only North America. Now this is much more than US and Canada—don't forget most of the Caribbean... <https://www.ng3k.com/Dxcc/dxccna.html>. These are the multipliers. The rest of the world will still count as a contact!!
- It's a 12 hour format—you can contest and still have a life!! You can only operate 10 of the 12 hours (single operator), breaks must be 30 minutes minimum.
- No spotting software use allowed (for single operators—multi operators have different rules).

- There will be band hopping—so folks with multi band antennas (e.g. G5RV type) will be able to move about quickly to get contacts.

This is a perfect contest for new hams and experienced hams alike. There will be pileups, but it should be manageable. You won't be fighting that guy with a 75' tower and 1500w to break in. And EU and SA will be trying to contact YOU to get the multiplier.

The official web page for the contest is <https://ncjweb.com/naqp/>. Make sure you read the rules and setup your logging program for the contest (I use N3JFP, most use N1MM).

Make sure you know your response, and are ready to record the response of your contact, and get on the air. It should be a fun time for each mode, and a good possibility to collect a DX during these trying band conditions.

73,

Originally published in Zero Beat, from HCRA and FCARC member N1JIE

Editors note:

North American QSO Party, CW

1800Z, Jan 9 to 0559Z, Jan 10

North American QSO Party, SSB

1800Z, Jan 16 to 0559Z, Jan 17

Winter Field Day

Winter Field Day is a 24 hour contest organized by the Winter Field Day Association that will begin on Saturday January 30 th at 2 p.m. EST until Sunday January 31 st at 2 p.m. Its goals of emergency preparedness, field operation, and fun are similar to the ARRL's summer Field Day. The rules are also fairly similar to Field Day. The exchange consists of "class", "category", and "ARRL/rac section (or DX)". Class is how many transmitters are in simultaneous operation. Besides operating an HF rig, this would allow one to use an additional VHF/UHF radio as you can't operate both simultaneously by yourself. Please monitor VHF/UHF for simplex activity in the valley, probably on 146.520 the National Calling Frequency.

Categories are H (home), I (indoors at some other location), and O (outside). Most will probably be operating alone from home so their exchange would be "Call sign" 1H WMA or phonetically: "Call sign.... 1 Hotel....Whiskey Mike Alpha".

Logs are due by 0000 UTC March 1 st . Due to covid preventing clubs from operating as groups, the WFDA rules are again very similar to this past ARRL Field Day rules. Enter the exact same club name in the log as results will be published both ways showing club's aggregated score of its members and ones individual score. For example 2000 FD results listed HCRA as "Hampden Co. Radio Assn" and the FCARC as "Franklin Co. (MA) ARC".

Please check out the rules at: <https://www.winterfieldday.com/> , participate, and have fun.

Winter Field Day runs for 24 hours during the last full weekend in January each year from 1900 UTC (2pm EST) Saturday to 1900 UTC (2pm EST) Sunday. For 2021 the dates are January 30th and 31st. Station set-up may commence no earlier than 1900 UTC (2pm EST) on the Friday before.

FROM A ZERO BEAT ARTICLE YEARS AGO:

Winter Field Day is just around the Corner (Zero Beat: January 2017)

We all have heard about the ARRL's Field Day event the last weekend in June, how about Winter Field the last weekend in January?

Winter Field day is sponsored by the Winter Field Day Association. We believe as do those entities of ARRL Organizations like ARES & RACES that maintaining your operational skills should not be limited to fair weather scenarios. The addition of a Winter Field Day will enhance those already important skills of those that who generously volunteer their time and equipment to these organizations. Disasters are unpredictable by nature and can strike when you least expect them. WFDA's goal is to help enhance your skills and ready you for all environmental conditions found in the US and Canada during the spring, summer, fall, and winter.

If you are serious about emergency communications as we are; we welcome you to join us for our yearly event. We are sure that you will find this event a pleasant change and challenge to that of a normal summer time field day

Additional notes regarding the Wing Company – Scott Conti - N1LYW

In the last newsletter, Lad Nagurney (WA3EEC) noted the Greenfield based hams from the “Wing” family. In addition to his historical account of the Chauncey Wing Company and the Wing Mailer, I have a few more pieces of information linking them to Ham Radio and electronics.

Henry C and Howard E Wing were the sons of Chauncey Wing and were deeply involved with the business running in Greenfield on Pierce Street. Henry C, also had a son named Henry C Wing Jr – so that may have been the 3rd ham from the family. Much of that factory is still intact to this day ! I toured the main building and the small “foundry” building last year and many of the original machines are still in-place ready to run and produce Wing mailer parts.

The Wing company also produced a 5meter mobile radio that was advertised in the September 1934 issue of QST. Coils were available to tune it to 2 ½ meters. The Wing radio in the accompanying photograph can be seen locally at the Museum of Our Industrial Heritage on Mill Street in Greenfield (industrialhistory.org).

The housing is an aluminum casting with a black wrinkle finish. The aluminum casting work was done in the small foundry building. During WWII production at Wing was halted and they became involved in manufacturing components for top-secret radar research and produced a radar unit used in Navy fighters. Henry C Wing has been credited with managing Wings' electronics business.



Field Day Results 2020

<https://contests.arrl.org/ContestResults/2020/Field-Day-2020-FinalQSTResults.pdf>

is the link to the 2020 Field Day article and results.

A rule change allowed for individual club operators to have their scores aggregated to a score for the club.

FCARC had 5 participants for a total club score of 3278. Participants were Anne and, Keith operating under N1YL call sign, Jeanne KC1DCQ, Bob Dickerman WA1QKT, Silas KC1BTV, and Al N1AW

Fitting a 260' Antenna Into a 12'x12' Space

Bob Solosko W1SRB

The FCARC slow speed CW Snail Net regularly meets twice a week on 80M. Short range communications on 80M depends on NVIS (Near Vertical Incidence Skywave) in which the radio waves travel near-vertically upwards into the ionosphere, where they are refracted back down. If the frequency is too high (that is, above the critical frequency of the ionospheric F layer), refraction fails to occur. During most of the year, the critical frequency is well above the 3.532 MHz usually used for the Snail Net. However, during these dark winter nights, the critical frequency usually is below the 80M band, making 80M unusable and forcing the Snail Net to move to 160M.

In last month's Communicator, I described a 20M-40M-80M antenna using 6 mobile whips on top of a 15' push up fiberglass mast that is within the 12'x12' footprint of my patio; a restriction imposed by the Lathrop senior community where I'm now living. So, the question then was what could I do for an 160M antenna that would be within my patio's footprint, which as a dipole would be about 260' long. Al Woodhull pointed me to an article in the November 2019 QST "160-Meter Window Line Loop". Such a transmitting loop antenna seemed like it might do the trick.

Small transmitting loop antennas are usually $1/8$ to $1/4$ wavelengths in circumference, and tuned with a remotely adjustable capacitor. Because the impedance of the loop is very low, as is typical for antennas that are very short with respect to wavelength, it is important to reduce any resistance to a minimum to reduce what would be significant resistive loss. Thus, these antennas are usually made using copper tubing, $1/2$ " in diameter or larger with minimum joints to keep resistances low. And since the voltage at the tuning capacitor can be in the range of several thousand volts, high voltage variable butterfly capacitors are usually used for tuning. Since these antennas are basically a tuned LC circuit, the bandwidth is very narrow thus requiring the use of a variable capacitor to be able to use the antenna over the entire band for which it's designed.

The antenna described in the QST article uses ladder line instead of copper tubing so it wouldn't be particularly efficient. It also uses a length of ladder line as a capacitive tuning stub in place of the variable capacitor for tuning, and thus it would be tuned for a fixed single frequency (although different lengths of ladder line could be used to tune the antenna for different frequencies). But for the purposes of participating in the Snail Net on 160M, it seemed it would be adequate. Furthermore, it was perfect for me as I had a lot of ladder line left over from previous antennas before I moved to Lathrop, and I had many lengths of bamboo that I could use for the supporting structure. Thus, I didn't have to go into stores to buy anything, which I'm not doing during the pandemic times.

The antenna loop uses 50' of ladder line with one lead crossed over to connect to the other lead to form a 2-turn loop, as shown in the diagram copied from the QST article. The supporting structure is composed of 2 bamboo spreaders (made from multiple lengths of bamboo held together with cable ties and pipe clamps) that slide into a short piece of PVC pipe in the hub,

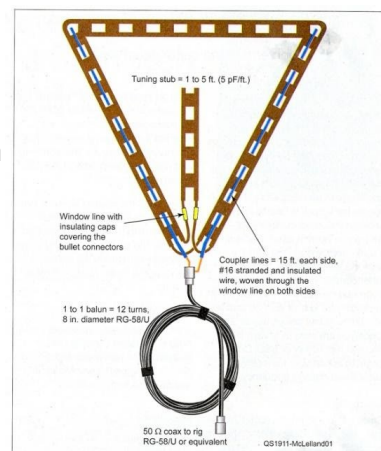


Figure 1—This schematic of the 160-meter band loop antenna shows a tuning stub in the center. The loop is fed through a coaxial choke.

making the antenna easy to take apart when not being used. The hub has a 5' vertical section of bamboo to support the top of the loop, and the whole thing fits into the top of my 15' push up fiberglass mast. At the top and at the ends of the spreaders, I glued small blocks of wood about 1" from the end of the bamboo. The end of the bamboo then goes through the opening in the ladder line and is secured using rubber bands.



While the QST article says that the tuning stub would be 1' to 5' long, to tune my antenna to 1.815MHz, the frequency used for the Snail Net, my tuning stub ended up being about 15' long. I tuned it by starting with a longer piece of ladder line and then cutting off about 6" sections until it tuned to where I wanted it. At 1.815MHz, the SWR is about 4:1, a little bit high but well within the tuning capacity of my Elecraft K2 antenna tuner. At this frequency, even with a 4:1 SWR, the transmission line loss is minimal. With this tuning stub, the usable frequency range is about 1.812MHz to 1.820MHz.

And the antenna does work and gives me a reasonably strong signal that lets me participate in the Snail Net on 160M. I haven't yet tried to make other contacts on 160M with it.

*While the antenna fits within the 12'x12' footprint of my patio at ground level, at 15' in the air, it actually extends a little over my neighbor's patio – she's OK with that although she says it scares her cat.



HCRA is starting a Newbies Net for those newly licensed hams and hams that have earned their license in the past 5 years or so too. The net starts Jan 14th, Thursday at 7:00 pm on the 146.715 W1BR repeater which is located on the soldiers home in Holyoke. Gary, KC1JZR will be the net control. All new hams are invited.

All are invited to the next HCRA meeting which is on Friday, January 8th at 7:30 pm. The guest Speaker is Harold, N1FTP who will tell us all about awards that are available to anyone. If you like paper awards, for operating events, this is your meeting! Chat and Breakout Rooms open at 7:00 pm. Here is the Zoom info:

Join Zoom Meeting

<https://us02web.zoom.us/j/81915421109?pwd=UENnNjVMY2RhMVNlVk9lZnJBU3R1dz09>

Meeting ID: 819 1542 1109

Passcode: 015777

(Editor: If you need the dial in phone numbers to join the meeting by phone please email rangerfriday@gmail.com)

FREE Online Ham Radio Class



The Hampden County Radio Association will be holding a five week course where you can learn everything you need to earn your Technician (entry level) FCC **Amateur Radio License**.

The Technician license is your gateway to the world-wide excitement of Amateur Radio. Morse Code is no longer required!

**Classes held every Wednesday, 7-9 PM
February 3 - March 3, 2021
Online via Zoom**

Pre-registration is required at www.hcra.org/licensing-classes

For more information, contact:
Mike DeChristopher, N1TA
mfdechristopher@gmail.com



Western Massachusetts

Amateur Radio Emergency Service®



The Western Massachusetts ARES (Amateur Radio Emergency Service) group needs volunteers. Everyone is urged to apply.

The Amateur Radio Emergency Service® (ARES) consists of licensed amateurs who have voluntarily registered their qualifications and equipment, with their local ARES leadership, for communications duty in the public service for local events and when disaster strikes.

Every licensed amateur, regardless of membership in ARRL or any other local or national organization is eligible to apply for membership in ARES.

People are needed:

In your neighborhood

- To aid in getting critical information to and from local emergency officials.
- To get information on the response to a disaster from officials to your neighbors, friends and family.

In your town

- Assisting in a town Emergency Operations agency, hospital or shelter to provide a vital communications link.

At the county or regional level where applicable

- Assisting Emergency Operations Centers, hospitals or shelters in providing communications with towns and groups outside the emergency.

Join now!

Your Western MA, ARRL and ARES Section can provide:

- Training in procedures, regulations and technologies to help increase your communications proficiency
- Technical Support to achieve your desired goals

For more Information or to join visit:

<https://wma.arrl.org/join-ares/>

THE COMMUNICATOR is an informational publication for members of the Franklin County Amateur Radio Club. Officers: President: Aaron Addison (kf1g@arrl.net), Vice President: Richard Merriott, KC1JQJ, Treasurer: Howard Field, N1LUP, Secretary: Erika LaForme, KC1IJJ, Director: Belle Dyer, KB1NOG, Director: Vacant

This is your newsletter! Amateur radio information of general interest, club member project descriptions and doings, radio applications to other activities, corrections, or suggestions are all welcome. Individual submissions make for variety! We need more writers! Send submissions to: Aaron KF1G (rangerfriday@gmail.com).

Back issues of the Communicator are online at <http://www.fcarc.org/commun.htm>