

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



FIRST CLASS MAIL



THE COMMUNICATOR THE COMMUNICATOR

September 2020

Upcoming Events

- Sep 14 Mon 6:00 pm **E-Board**
- Sep 14 Mon 7:15 pm **General Meeting**

This month's meetings will be conducted via Zoom – see inside for connection information.

**THIS ISSUE IS DEDICATED TO CARTER MACDONALD WA1TVS
see page 3**

September 2020

Calendar

Meeting – Monday September 14 E-board at 6:00 p.m. General Meeting at 7:15 pm.

Zoom meeting details:

Silas Cutler is inviting you to a scheduled Zoom meeting.

Topic: FCARC Meeting

Time: Sep 14, 2020 06:00 PM Eastern Time (US and Canada)

Join Zoom Meeting

<https://us04web.zoom.us/j/71240194596?pwd=cHR5WFIPSExzXh2SWRxdDdyOVozUT09>

Meeting ID: 712 4019 4596

Passcode: 913752

One tap mobile

+13017158592,,71240194596#,,,,,0#,,913752# US (Germantown)

+13126266799,,71240194596#,,,,,0#,,913752# US (Chicago)

Dial by your location

+1 301 715 8592 US (Germantown)

+1 312 626 6799 US (Chicago)

+1 646 558 8656 US (New York)

+1 253 215 8782 US (Tacoma)

+1 346 248 7799 US (Houston)

+1 720 707 2699 US (Denver)

Meeting ID: 712 4019 4596

Passcode: 913752

Find your local number: <https://us04web.zoom.us/u/fdEIAzxtAu>

Additional notes on Zoom from Silas

Time can be changed and I'll plan on starting the zoom session about 15 minutes prior. I'd considered also suggesting in the future we switch to something like Google Hangouts - but I suspect some folks are averse to using a Google product. That said, giving we've already started using Zoom - changing to another platform may be more of a headache.

My Zoom license allows me up to 100 participants - so, it's absolutely fine to have non-members. If we run into an issue where we may exceed that, I can get my license upgraded.

Hello From New FCARC President

I'm Silas (KC1BTV) the incoming FCARC President. I've been a licensed operator since 2014, when I received my Technician, and earlier this year moved up to General. A lot of my radio time is spent fixing my scrappy antennas and doing digital mode work on HF.

For the past 8 or so years, I've worked (both professionally and as a hobbyist) as a Security Researcher with a focus on malware analysis / Intelligence. As the title is a bit broad - I'm basically a virologist for

computer viruses (worm / trojan / spyware / etc). Computer viruses are unbelievably interesting things. Much like human viruses, they often have family lineages and their own histories - who created it, for what purpose and where was it used. My job is to find all of that out. The computer viruses I closely follow are those developed for both government and economic espionage. So, whenever you hear about “<Some Country> hacking into <something>” - there’s a good chance I’m investigating it.

Throughout the time I’ve been doing this, I’ve been able to work remotely from my home in Greenfield, where I’ve lived for the past 6 years. Before settling here, my wife and I moved around from Rochester, NY to Myrtle Beach, SC.

Because I work from home, I have both my Yaesu FT-2900 and ICOM 706 on my desk. While the 706 whirls along on either FT8 or WSPR, I have the FT-2900 set to the Leyden 2 meter repeater. I have a terrible habit of turning the volume down because of meetings and forgetting to turn it back up - so if you are trying to ping me through the repeater and I don’t respond - shoot me a quick email.

Outside of radio and work, I’m a novice offroad driver. I have a Jeep Wrangler that exists in the fun space between doubling as a pool (because when it rains, I end up with ankle deep water throughout) and getting stuck in ditches.

As President, I have two main responsibilities. The first is to champion the interests and goals of the club’s members. If members want to learn more about activities like SOTA or POTA or participate in training or DIY activities, let me know and we’ll make it happen. The second is with the e-board to keep the club operating effectively and efficiently. In order to do that, I want everyone to know they can always reach out if there are any problems, concerns or for really any reason, I’m always happy to help.

As a closing thought, last week I read an outstanding post from Matt Kaskavitch (K0LWC) entitled “Ham radio is dying! No it’s not, it’s evolving”[1]. In Matt’s post, he calls out how since 2007, there has been a steady rise in the number of licensed operators and that while “kids aren’t impressed with the ability to talk around with the world”, other areas of ham radio including AMSAT, remote HF stations and POTA/SOTA are becoming increasingly popular.

Especially in this time of new and changing normal, ham radio and the community behind it has the amazing ability to adapt. We’ve moved our meetings online, I’ve seen countless new stations come up and I can’t wait to see where things go.

73,
Silas

THE SEPTEMBER ISSUE OF THE COMMUNICATOR IS DEDICATED TO CARTER MACDONALD WA1TVS

Carter MacDonald, licensed many years ago as WA1TVS, has exemplified the nature of what is best about amateur radio for years. He is a friend and was an Elmer to everyone in the Franklin County Amateur Radio Club. He has served many offices in the club over the years but this was not as important to him as the friendships he has made through this great lifelong hobby.

Many of the newer hams only know of Carter’s contributions from the stories and his regular participation in nets. He had a distinctive fist using his straight key twice every week during the FCARC 80 meter “Snail Net”. He tried to encourage participation in both Emergency Service and Information Nets proposing lottery

tickets or candy bars as bribes. Even after moving into Buckley Nursing Home a year ago Carter continued to participate in club nets from the screen porch or his room. Room placement and limited visitors to assist with radio modification or antennas has left the nets missing Carter's participation since March.

Carter supported young amateurs as they began their hobby and became licensed while teaching at Eaglebrook many years ago. One of his famous students TV reporter Tony Russell KC0IKK was able to come all the way from Tulsa, OK to talk to the club about how his experiences in amateur radio led to his career in TV news reporting. As far as FCARC Carter participated in all our club activities with a smile and a helping hand. Carter and his wife Linda were known to provide the ham for our holiday potluck. He is much remembered for his role in Field Day every year as he provided breakfast on June Field Day Sunday mornings for all who had stayed over at Poets Seat while participating in this 24 hour event. In the early years the tailgate of his truck was the kitchen counter but in later years he drove his retirement camper up the steep curvy roads to Poet Seat offering rest, an operating station, breakfast, and a restroom to participants.



Over the years Carter participated in 2M radio operation for numerous service events with other FCARC members. These events included the Greenfield Triathlon, Sleigh Bell Race, Bridge of Flowers, and the Franklin Land Trust's Deerfield Dirt Road Randonnee. Carter always took a shift at net control if not in the field. This year these events did not occur due to the Covid Pandemic.

One of my favorite memories of Carter was from a breakfast we were having at Goulds. He had arranged for a CNA to bring an elder club member, who was living at local nursing home, to breakfast in a wheelchair and the two of them carried on like it was a grand escape.

Carter MacDonald is still at Buckley Healthcare Center in Greenfield. Because of the Covid19 visiting has been restricted. Please consider sending him hand written or typed letters or cards esp with photos.

As Carter would say: "Well there you have it".

Anne Kring N1YL



News, Activities & Articles

Editor's Note: Since most everyone has been isolated in a private bubble during this time of social distancing, I asked club members to share whatever they have been doing recently that might interest others...

Report from Roy, K1LKY, Bernardston

The Kenwood TS-440 that as been in use here has recently failed to power up. So work has begun on a hamfest find of last Summer: a Kenwood TS-930. A modification by an earlier owner disconnected the failure-prone internal 24 volt final amplifier supply and allowed for use of an external supply. Unfortunately I did not get that supply with the radio, but I now have two modern 12 volt switching supplies here that need to be connected in series. Suitable wiring and precautions against short circuits are the next steps in getting the station back on the air.

A home-brewed balanced antenna tuner, a very lucky earlier hamfest find, will feed the less than ideally located center fed dipole through ladder line. So soon I hope to have a good strong signal on the Snail Nets, and start improving my CW on the regular ham bands.

Any one with an available 24-28 volt supply good for 10 amps or so should let me know at k1lky68@gmail.com and thanks much.

Anne, N1YL, Greenfield, has a new Morserino:

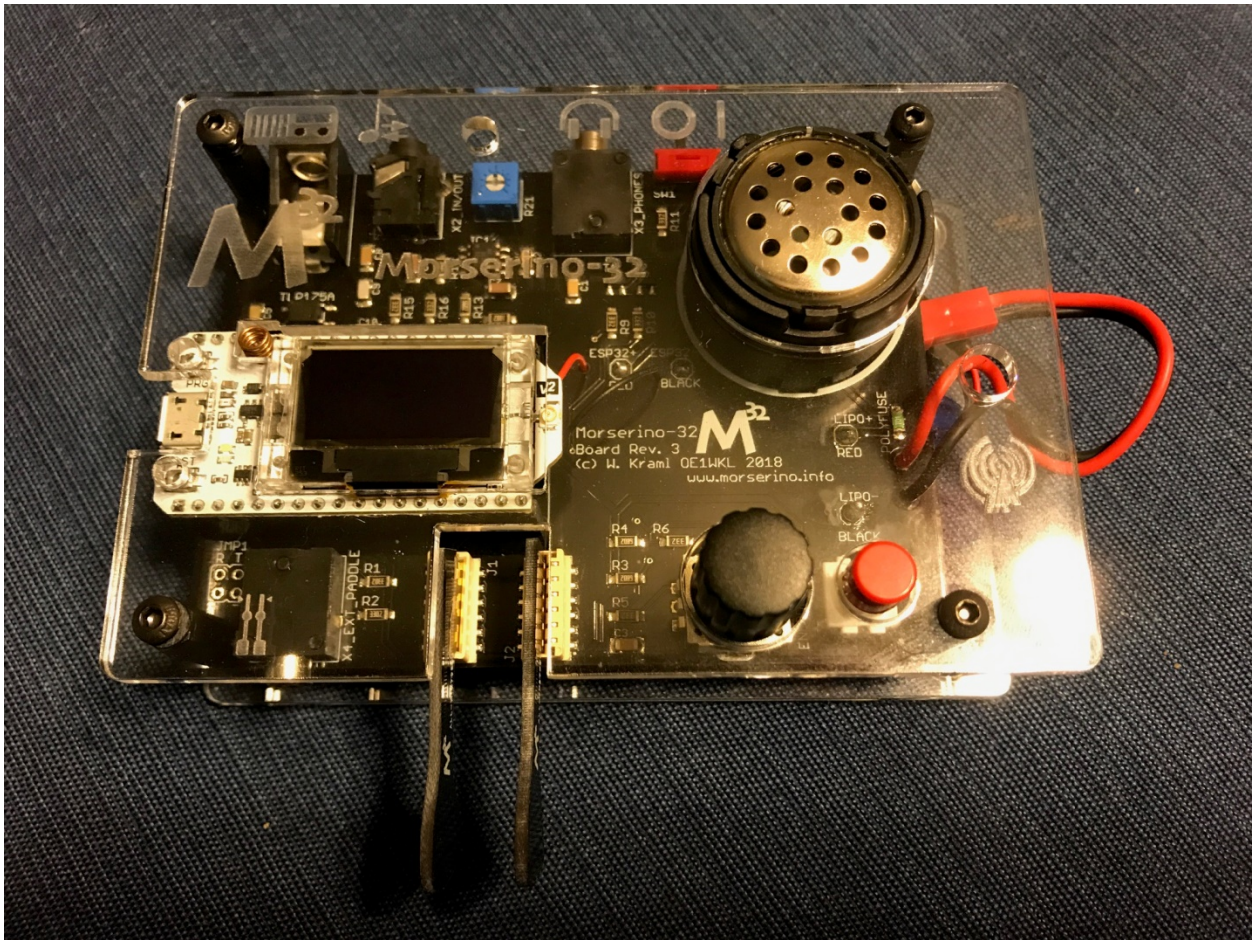
After 3 weeks my Morserino-32 kit arrived from Austria. I became familiar with the Morserino as it has become quite popular with the students of the Long Island CW Club that I belong to. Note, the LICW club is an excellent club to learn CW offering 48 Zoom classes per week at various levels <https://longislandcwclub.org/>. The Morserino-32 was developed and is sold by Willi Krami, OE1WKL. It is a multifunction device using an ESP32 microprocessor, an OLED display, removable paddles, and external speaker. Here is the web site for ordering and more information including a video review by Josh of Ham Radio Crash Course: <http://www.morserino.info/morserino-32.html>

The Morserino is a multifunction device that can be used as an external keyer, cw training generator with several modes including Koch training, training via random word/abbreviations/call signs/, cw decoder via audio input, and my favorite the echo trainer in which a word/phrase/sentence etc. is played with no display and I have 4 attempts to send the correct answer via the paddles. It is an interactive training device to learn and send cw correctly with proper spacing. Characters are displayed on the screen. It has Wi-Fi so one can upload a text file for practice or connect to the internet Morserino server which hams are using for practice qso's with their Morserinos.

Building the kit is easy as it consists of just adding the larger components to an already completed surface mount pcb. There are 4 jacks, on/off switch, a pot, an encoder, a push button switch, speaker, two 18 pin headers for the ESP32, and 2 battery wires or about 70 solder points and 1 hour or less. A 3.7 volt single cell lipo with a mox connector should be purchased to independently power the Morserino so it is not tied to a micro usb cable. I chose a larger 1200 mAh battery for \$5.95 that ended up having the wrong type/size of mox connector so I had to convert it to JST connectors I had handy. There is an onboard charger at 100mA so charging will take a long time the larger the battery one gets (i.e. 40 hrs for 4000mAh). I will probably use my external lipo/life charger. I chose not to add the LORA antenna jack because we only have one Morserino in the house.

Kit building, nets, contests, and classes like CWA or LICW offer are just a few ways to be involved with Amateur Radio while the Pandemic is keeping us home.

Here is a picture of my Morserino-32 with battery cable to lipo battery on bottom shelf:



Aaron, W1AMD, Leyden, had fun making an LED Facemask. This is an electronics project, not a ham radio project. Still, the hams out there will certainly have the tools and most of the background for this diverting, quick little project. And, you'll be the most popular person at the Big Y! That is, if you're wearing one of these...



*Not talking
(Why so serious?)*



*Talking
(Mouth size varies with volume.)*



*Smiling!
(Triggered by 'pop' noise.)*

Yes, a facemask with LEDs for a mouth! It opens and closes as you talk, and if you make a quick 'pop' noise, it displays a smile for a couple seconds.

It's a very easy, fast build—it took me only 30 minutes, not including the mask/fabric. Full credit goes to Tyler Glaiel, the fellow who came up with the idea. His extremely detailed instructions can be found here: <https://bit.ly/led-covid-mask>

At its core, it's very simple—just an Arduino Nano, a semi-flexible 8x8 LED matrix, and an electret microphone breakout board. It's powered by a 9V battery. The Arduino regulates this down to 5V for its own use, and to power the electret. But the Arduino doesn't supply power to the LED matrix because that component draws too much current. There's a separate 9V to 5V converter for powering the LEDs directly off the battery. The Arduino uses a digital output pin to control the LEDs (with a 330 Ω resistor in-line) based on what it receives from the electret on an analog input pin.

It's super fun to wear in public! Though, I do have some qualms with it. The LEDs draw way too much current. I measured a draw of 380 mA at "resting face." You can easily drain a fresh battery in under an hour. I may tinker with the code to turn down the illumination levels. It could also use a power switch. Lastly, when the battery voltage gets too low, the electret no longer seems to measure volume reliably, and this can result in a permanent "big mouth" face until you change the battery. Obviously it would be awkward for that to happen halfway through your shopping trip! I've written out more detailed thoughts and potential solutions on the GitHub code page.

Chris, KB1NEK, Shelburne Falls - Digital Modes for Emergency operations

Chris has been working with Bob, K1YO, Emergency Coordinator for the Western Massachusetts ARRL Section. Bob has been experimenting with VARA, a software for use with WinLink, a system that interfaces e-mail via radio with the global e-mail system. Another digital mode? Well, yes, but this one is especially suitable for emergency communications, where error-free text messages may be intended for non-hams who will want to read the messages on whatever system they use for e-mail, not over the shoulder of a ham.

Another aspect of this system is that it integrates well with voice communications. Most of the usual digital modes do not allow quick transfer from a voice mode conversation to an error-free text mode. Of course this is not legal on many ham bands anyway, but this is legal on 160 meters, 30 meters, and 6 meters. Chris and Bob have been experimenting with this on the Mt Greylock 6 meter repeater which has very wide coverage.

News of our neighbor club, Hampden County Radio Association

The HCRA normally meets at the Holyoke Hospital on the first Friday of each month. Like FCARC, they haven't been able to meet in person since March, their meeting space has not been available.

HCRA's April meeting was to have been a Show-and-Tell for DIY projects. This has been rescheduled for September. It will be a Zoom meeting, similar to what FCARC has been doing since last Spring. Because the first Friday came before Labor Day this year, the meeting will take place on Friday September 11th. HCRA invites anyone, whether or not a club member, to their meetings. Their Zoom license allows for up to 100 people to join a session. Access to Zoom meetings will be sent by e-mail. Non-members are welcome to sign up for the HCRA e-mail reflector – go to the website at <http://www.hcra.org/>

Announcing the weekly K1USN Radio Club SST

Anne, N1YL, has recommended we forego our Sunday evening Snail Net session to participate in this event. At the very least, this event conflicts with the Sunday Snail Net, so we need either to join or to change our frequency or time.



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- Weekly: Starting Monday, Sept 14, 2020 @ **00:00-01:00 UTC** (Please note = Sunday, Sept 13 @ **8:00-9:00 PM EDT, USA**)
 - Exchange: Name + (state/province/country)
 - Suggested operating frequencies:
 - 80 meters: 3.532 - 3.539
 - 40 meters: 7.032 - 7.039
 - 20 meters: 14.032 - 14.039
 - Full details on the k1usn.com/sst.html website

FCC Proposes to Institute Amateur Radio Application Fees

from **ARRL Letter, September 3, 2020**

Amateur radio licensees would pay a \$50 fee for each amateur radio license application if the FCC adopts rules it proposed last week. Included in the FCC's fee proposal are applications for new licenses, renewal and upgrades to existing licenses, and vanity call sign requests. Excluded are applications for administrative updates, such as changes of address, and annual regulatory fees.

The FCC proposal is contained in a *Notice of Proposed Rulemaking* ([NPRM](#)) in MD Docket 20-270, which was adopted to implement portions of the "Repack Airwaves Yielding Better Access for Users of Modern Services Act" of 2018 -- the so-called "[Ray Baum's Act](#)."

The Act requires that the FCC switch from a Congressionally-mandated fee structure to a cost-based system of assessment. In its *NPRM*, the FCC proposed application fees for a broad range of services that use the FCC's Universal Licensing System (ULS), including the Amateur Radio Service that had been excluded by an earlier statute. The new statute excludes the Amateur Service from annual regulatory fees, but not from application fees.

"[A]pplications for personal licenses are mostly automated and do not have individualized staff costs for data input or review," the FCC said in its *NPRM*. "For these automated processes -- new/major modifications, renewal, and minor modifications -- we propose a nominal application fee of \$50 due to automating the processes, routine ULS maintenance, and limited instances where staff input is required."

The same \$50 fee would apply to all Amateur Service applications, including those for vanity call signs. "Although there is currently no fee for vanity call signs in the Amateur Radio Service, we find that such applications impose similar costs in aggregate on Commission resources as new applications and therefore propose a \$50 fee," the FCC said.

The FCC is not proposing to charge for administrative updates such as mailing address changes, and amateur radio will remain exempt from annual regulatory fees. "For administrative updates [and] modifications, which also are highly automated, we find that it is in the public interest to encourage licensees to update their [own] information without a charge," the FCC said.

The FCC also proposes to assess a \$50 fee for individuals who want a printed copy of their license. "The Commission has proposed to eliminate these services -- but to the extent the Commission does not do so, we propose a fee of \$50 to cover the costs of these services," the FCC said.

The FCC dropped assessment of fees for vanity call signs several years ago, but the Ray Baum's Act does not exempt filing fees in the Amateur Radio Service.

ARRL is reviewing the matter and intends to file comments in opposition.

Deadlines for comments and reply comments will be determined once the *NPRM* appears in the *Federal Register*. File comments by using the FCC's Electronic Comment Filing System ([ECFS](#)), posting to MD Docket No. 20-270. This docket is already open for accepting comments, even though deadlines have not yet been set.

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FCARC Newsletter Mailing Policies

The monthly FCARC Communicator is distributed to a fairly long e-mailing list. In addition to dues-paying members of the Franklin County Amateur Radio Club we also e-mail copies to active amateurs in other clubs and to a large list of people who have had contact with us through license classes and exam sessions.

We will also send the newsletter by US Mail to club members who are currently up-to-date with club dues and who request delivery by postal mail.

The current newsletter and many years of back issues are also available online via the club website, www.farc.org. If you are really eager to see the latest newsletter, it may be available on the website a day or more before it is e-mailed, and the e-mailed version is typically mailed a day or more before the US Mail version is sent out.

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THE COMMUNICATOR is an informational publication for members of the Franklin County Amateur Radio Club. Officers: President: Silas Cutler, KC1BTV (silascutler@gmail.com), Vice President: Richard Merriott, KC1JQJ (rcmpilot@comcast.net), Treasurer: Howard Field, N1LUP (howfield@comcast.net), Secretary: Erika LaForme, KC1IJJ (etlaforme@yahoo.com), Director: Belle Dyer, KB1NOG (bdyer582@juno.com), Director: Jeanne Dodge, KC1DCQ (j.anndodge@gmail.com), Clerk: Erika LaForme, KC1IJJ (etlaforme@yahoo.com).

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: Jeanne A. Dodge, KC1DCQ (j.anndodge@gmail.com).

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