

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



FIRST CLASS MAIL



THE COMMUNICATOR THE COMMUNICATOR

January 2019

Upcoming Events

- Jan 1 Tue New Years Day; Sawmill River 10K Radio Ops report at 9:00 am.
- Jan 12 Sat 8:00 am Breakfast, Denny's
- Jan 14 Mon 6:00 pm E-Board; 7:15 pm General Meeting, GCC East Building Room 110
- Feb 2 Sat Sleigh Bell Race Radio Ops report at 9:00 am (* See notes below)
- Feb 9 Sat 8:00 am Breakfast, Denny's
- Feb 11 Mon 6:00 pm E-Board; 7:15 General Meeting, GCC East Building Room 110
- Feb 25 Mon 7:00 pm VE exams GCC East Building Room 110

Calendar Notes

* We now have GCC East Building Room 110 available for all meetings as well as VE sessions

* As of Communicator publication date participation in Winter Carnival Sleighbell Race is not definite

Secretary's Report

Chris Myers, KB1NEK, FCARC club secretary

FCARC e-board minutes, meeting on 17 December 2018. Elected e-board members present were Al, Erika, Joe, and Chris as note taker. Also present: Anne and Keith.

For the first time we met in room 110 of the East Building at GCC.

We had an extended discussion about the next license training class. The GCC catalog already has a notice for a general class course to begin Monday 25 March, then on Wednesday, and the following two weeks also on Monday and Wednesday.

Among the six of us present, we all agreed the best strategy is to pick several important topics to teach, and not try to cover all the questions on the test or show all the slides in the ARRL presentation. Ideally we want all students to buy a license manual from the League, or equivalent from another publisher, if there is one. We want all students to start studying the manual before the classes begin, if this is possible. Since the course is part of the GCC Continuing Education program, we realize there may be students showing up at the very first session unprepared.

There was no consensus about whether it is best for one of us to order some books, and get a discount, or let the GCC bookstore order them, keeping a slight mark up for itself.

So far Al, Aaron, and Jeanne have expressed an interest in teaching the course. Jeanne's health may prevent her from being able to do so, but we have to keep her in the loop. When asked, Chris said he would be willing to teach a class.

Al said it is his understanding that he was to take on the job of editing the next Communicator. He asked any of us with articles to submit them by Friday the 28th, except for one on the Saw Mill River Race, which takes place on New Year's Day. Joe will try to write up an article on the race as soon as he can, and send it to Al. Chris is to send a message to Erik Sherman who has offered to write up an article.

We discussed the pros and cons of whether we want to participate this year in the Sleigh Bell Race at Greenfield's Winter Carnival. Erika has already received a message asking us about it, from Greenfield's Recreation Director, Christie Moore. The last two years we discovered that Christie had available another radio channel, making our presence redundant. Al agreed to contact Christie, since he has worked with her in the past, and ask her if there is any real use for amateur radio operators at the Sleigh Bell Race. If we decide to participate again this year, we need a club member to volunteer to organize it. The organizer should have her or his own car to bring the necessary club equipment.

Last month Ted asked the club to consider obtaining an internet connection to one of our repeaters on Rocky Mountain in Greenfield. Keith did some research into what is needed, and how much it would cost. If he and

Anne were willing to have equipment in their house to connect to their internet modem, the club would have to acquire a WIRES router, a C4FM capable radio, such as an FT100, and a modest small computer, to control the router. It may be possible to use a Raspberry Pi computer, but if not, then probably any old computer will do if it can run the software needed. Keith was not sure if a Windows 10 operating system is necessary. AI thinks that such systems are often capable of working on Linux. Keith's estimate of the basic costs are about \$600.

Since those of us present were not sure if there will really be much demand for an internet connection into the System Fusion, we thought about the possibility of borrowing some equipment. One of us, not sure who, could ask Eric Masur, at NOBARC, if he has a spare WIRES modem we could borrow.

For future general meetings we could construct a tape measure 2m beam antenna, or a J-pole using ladder line. At our January meeting we should try to get some fresh volunteers for organizing public service events, so those of us who have done it before can get a break.

News, Activities & Articles

FCARC Shirts, Hats, etc

Anne, N1YL

FCARC Apparel can be ordered any time from our on-demand on-line store. Silver Screen Design will send things out to individuals with shipping only fee as items are ordered. A standard 7-10 day turnaround time can be expected. The link is: <https://stores.inksoft.com/fcarc/shop/home>

In the spring we may do another bulk order where people can avoid shipping fee but for now people can order whatever they want but must pay shipping.

June Field Day Results in QST

AI, N1AW

Even though the ARRL has accelerated the schedule for contest results on the input side - logs and other data are due from contestants sooner after an event than used to be the case - the wait for results to appear in QST remains the same. Results for June Field Day come out in December QST. For 2018 the report begins on page 71.

The ARRL does not do cross-checking of logs for Field Day, so it is no surprise to see almost no difference from the scores we reported in July - there is a difference of 9 points, very likely a typo on AI's part. But what is new in December is that we can see our results in context. Our score this year was the best yet in the thirteen year compilation of FCARC Field Day scores that can be seen here. But what is exciting is to see where in the list of entries we came in. In class 2A (two simultaneous transmitters using emergency power) we are 36th in a list of about 250 entrants. In 2017 we were 73rd of about 300.

| Call | Score | Class | QSOs | Mult | GOTA | Sec | # | Club |
|------|-------|-------|------|------|--------|-----|----|-----------------|
| AC1L | 4720 | 2A | 1050 | 2 | KB1MSU | WMA | 27 | Franklin Co ARC |

QSOs: HF cw: 805, phone: 245 (HF: 150, GOTA: 95)

QSO points: 3710, bonus points: 1010, total: 4720

New Hams from October Class and VE Sessions

Info from Jeff Bail, Pioneer Valley VE Team

Please say hello and invite them to club events if you hear these people on the air:

| | |
|-----------|------------------|
| Charles | KC1KKW - General |
| Russell | KC1KKX - Tech |
| Asa | KC1KKY - Tech |
| James | KC1KKZ - General |
| Richard | KC1KGJ - General |
| Aidan | KC1KLP - Tech |
| Alexander | KC1KLQ - Tech |
| Runkai | KC1KLR - Tech |
| Scott | KC1KLS - Tech |

Foxhunt Report, Saturday November 10

Keith, KU1N

After the club breakfast at Denny's, the following people met in parking lot for the annual Foxhunt. Erik KC1JQN, Richard Strycharz AB1RS, Rich KB1NOX, Dick KC1JQJ, Erica KC1IJJ, Anne N1YL, Keith KU1N and Al N1AW. Eventually 2 teams went searching. Team 1 consisted of Rich KB1NOX and Dick KV1JQJ and Team 2 Anne, Erika, and Keith.

Aaron, KC1CXX volunteered to be the fox.

Once again bearings obtained at various locations in town were inconsistent. After an hour the Fox was asked by Team 1 if he were indeed in Greenfield. It was good to get this verified. Getting close to 2 hours the Fox was asked for a clue. The obscure clue given was "There Can Be Only One". Internet via cell phone revealed it was from a movie called Highlander. Upon arriving at Highland Pond the Fox automobile was spotted but no Fox. Using body shielding Keith found the Fox and his family outside their den about 1000 feet up a trail. The Fox was wrapped in a blanket and his family was looking rather cold. The Foxbox had a rock cliff behind it making for an interesting hunt. Traditionally the person who finds the Fox first becomes the Fox the following year. Keith made it very clear that he is a fair weather fox, in hibernation in November, and the hunt would have to be earlier. Other members are proposing multiple shorter fox hunts to improve skills.

Holiday Potluck Party

Anne, N1YL

On December 10, 2018 FCARC had a great holiday party at the Senior Center in Shelburne Falls. The food was delicious as always with Carter and Linda's savory ham, roasted root veggies, shrimp, pasta dishes, pizza, and many other yummy specials. All this was followed by numerous sweet treats including pie, cake, and cookies. As the evening progressed our traditional auction was held with bidding on radio equipment that was up for grabs. The equipment ranged from vintage to modern. The best part of the evening was the chance for radio club members to get together, relax, and chat when neither event or meeting requirements were present.



Photos by Erika, KC1IJJ

FCARC Supports the Sawmill River 10K

Joe, KB1WVO

On January 1st, 2019, the FCARC provided radio support to the Town of Montague's Recreation Department for the annual running of the Sawmill River 10K road race. The race was first run in 1988, and FCARC's support goes back at least three club presidents (no one remembers!)

This year's edition of the race had the nicest weather in recent memory: partly overcast, windy as the race progressed, but temperatures in the 40's. In spite of this, the number of runners was down from the cold and snow of last year's race. There is no good explanation for this, other than runners are, according to race Director Jon Dobosz, "a fickle lot."

Erika LaForme, KC1IJJ, served as net control and was joined by the following club members: Rich Stewart, KB1NOX, in the lead car with the race director; Kip Williams, AB1UU; Karen Bierwert, KC1IJH; Joe Henefield,

KB1WVO; Anne Kring, N1YL; Keith Rowley, KU1N; Justin Norman, KC1HEG; Erik Sherman, KC1JQN; Dick Merriott, KC1JQJ; Chris Myers, KB1NEK; Mark Gregory, KC1JQD; Cathy Mitchell, KB1SNA; and, in the Sag Wagon, Al Woodhull, N1AW. The race and radio operations both went smoothly. Thanks to all of you members for volunteering to support the first race of the New Year.



The pictures above were taken by Anne Kring. No pictures of club members eating baked potatoes or cookies after the race are available.

Invitation: Practice Morse Code on the Snail Net

Al, N1AW

Several years ago several FCARC members started the Snail Net, a slow speed CW (Morse Code) practice net. We now meet on Sunday and Wednesday evenings at 8 p.m. The usual frequency is 3.532 MHz. Listen on the KB1BSS 146.985 MHz repeater a few minutes before net time to confirm the frequency, nobody owns a frequency and sometimes we have to move a few KHz to avoid interference. On the Net Listing page on the FCARC website (www.fcarc.org/netlistings.htm) there are links to additional information on the website. Newcomers are welcome, we will slow down as necessary.

Two Things You Can Thank Benjamin Franklin For

Erik, KC1JQN

Benjamin Franklin is renowned for many things: inventor, ambassador, author, political notable, entrepreneur, and scientist. Two of these helped set off two annoyances, one for virtually everyone in the country and a second that can be especially vexing for those trying to get their ham radio licenses. And in both cases, the result was accidental.

The first annoyance is daylight savings time. The idea was originally a point of satire. Franklin was in Paris at the time, writing for the *Journal de Paris*, edited by a friend. On April 26, 1784, the publication featured a letter from Franklin, who had a long-standing reputation for this industry. He observed that many of Paris's denizens would stay up late and sleep in, rather than the Poor Richard's Almanac suggestion that "early to bed and early to rise makes a man healthy, wealthy, and wise."

"Your readers, who with me have never seen any signs of sunshine before noon, and seldom regard the astronomical part of the almanac, will be as much astonished as I was, when they hear of his [the sun] rising so early; and especially when I assure them, that he gives light as soon as he rises. I am convinced of this. I am certain of my fact. One cannot be more certain of any fact. I saw it with my own eyes. And, having repeated this observation the three following mornings, I found always precisely the same result."

He jokingly said that had someone not accidentally woken him at 6 a.m. one morning, he would instead have arisen at noon and then stayed up six hours later at night, requiring the burning of additional candles. Franklin then estimated the "immense sum" that Parisians wasted annually and suggested that they be forbidden the candles and forcibly woken early.

It was clearly satire and you cannot blame Franklin because someone either copied the concept or independently found it and took the entire concept seriously.

The second irritation is the existence of conventional flow notation in electronics theory. Current is a result of electrons' movement through wires. In schematics, however, current moves from positive to negative. The result can be utter confusion when trying to translate between the world of schematics and that of actual physics.

The conventional approach began with Franklin's experiments with electricity, including the creation of static charges by rubbing wax with wool. He theorized that electrical charge was an invisible fluid and that the wool brushed some of that fluid from the wax and then retained it. In other words, there were objects and substances that had an excess of the fluid—a positive amount—and others that had a negative amount.

By the time that scientists realized current was a movement of particles identified as negative, it was too late. And so, schematics use conventional notation that shows the opposite of reality. However, knowing the difference can make reading them easier. For example, an NPN bipolar junction transistor has a p-layer, which

has a surplus of holes in the semiconductor lattice, sandwiched between two n-layers that have a surplus of electrons.

In the schematic representation, the NPN transistor has the arrow pointing outward from the center. That is because, in convention notation, current would flow from positive to negative. The schematic of a PNP transistor has the arrow pointing inward because that is the path from positive to negative.

Remembering that the convention, thanks to Franklin, moves from positive to negative will help you identify the components.

As for daylight savings time, I'm afraid there is nothing positive to offer.

THE COMMUNICATOR is an informational publication for members of the Franklin County Amateur Radio Club. Officers: President: Aaron Addison, KC1CXX (kc1cxx@arrl.net), Vice President: Joe Henefield, KB1WVO (joehenefield@comcast.net), Treasurer: Howard Field, N1LUP (howfield@comcast.net), Secretary: Chris Myers, KB1NEK (camyers1@verizon.net), Director: Belle Dyer, KB1NOG (bdyer582@juno.com), Director: Ron Niswander, K8HSF (reniswander@gmail.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).

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