

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

FIRST CLASS MAIL



THE COMMUNICATOR

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September 2016

Upcoming Events

- Club Breakfast: Saturday Sept 17, 8 a.m.: Denny's, Greenfield, 10:00 am Franklin County Amateur Radio Emergency Communications group at GCC Hammond Studio
- E-Board meeting: Monday Sept 19, 6:00 p.m.: at GCC
Program Meeting: 7:15 pm General Meeting at GCC Hammond Studio, Topic: FCARC Repeater Update (Al and Keith)
- Food Bank Bike4Food: Sunday Sept 25 – all day Public Service event
- Club Breakfast: Saturday Oct 15, 8 a.m.: Denny's, 10:00 am Franklin County Amateur Radio Emergency Communications group at GCC Hammond Studio
- Crop Hunger Walk: Sunday Oct 16, 12:00 pm Public Service: Crop Walk, S. Deerfield (Church World Service benefit)
E-Board meeting, meeting & Program: Monday Oct 17, General Meeting, Topic: TBA

DUES are DUE now!

Dues support the repeaters, the club activities and the Communicator.

General Adult - \$15/year

Family Group membership - \$18 /year

Repeater Patron donation - \$10.00 or more Suggested

You may pay for multiple years of membership.

Mail dues to:

Franklin County Amateur Radio Club

PO Box 773

Greenfield, MA 01302

or to

Howard Field

7 Laurel St.

Shelburne Falls, MA 01370-1512

Make checks payable to **FCARC**.

Please include SASE if you wish to have a receipt mailed to you.

Calendar

Public Service Event: WILLBIKE4FOOD:

We will be providing communication support for the 50 mile and 100 mile bike routes for the Will Bike 4 Food event. These routes have changed from last year. They have not yet determined the water stop locations for these routes. We will need operators for some of the water stops, operators for roamers and for net control in Hatfield. The event will be located at the Lion's Club Pavilion in Hatfield, same as last year.

We will need about 12 people to provide support for the event. Sign up will be available at this month's breakfast and at the regular meeting. In addition, people can notify me or any of the club officers if they want to help with the event. It will be on the last Sunday of the month, September 25.

Ron Niswander, K8HSF

VP, FCARC

Secretary's Report

E-board meeting Monday, July 18, 2016 – AI N1AW

Status of new repeaters

+ neither new machine is satisfactory. The 2 meter is running with a separate transmit antenna.

+ There is still desensing of the 440 with the now-retuned duplexer. Suggested actions:

- + measure the desensing; or at least ask Bruce B about duplexer specs. think about
- + improving duplexer with filters or new duplexer.

- Repeater physical access and control:

- + Keith and AI are planning to purchase different
- + DTMF decoding units to implement a shutdown controller similar to what we have on the
- + Leyden 2m repeater.
- + Get an additional key and register Keith with water department as an authorized person.
- + Suggestion, ask Betty Boutwell about who to approach in water department

- More equipment (amplifiers, filters, duplexer, digital HTs):

- + Club has about \$1500 in treasury

- Public service events August and September

- + Jeanne coordinating Triathlon, Chris BoF, AI and Bob S D2R2

- + Ron to coordinate B4F

- + Phill to coordinate Crop Walk (to be verified)

- Programs and activities for Fall:

- + suggestion by Jeanne: Marathon communications history: Jeanne to ask Jim Palmer

- + suggestion by Ron and Bob: get someone to talk about antenna modelling

- + Repeaters (Keith and AI???)

- + APRS (Phill?)

- + Fox hunt

- + Holiday party @ Shelburne Senior Center (Howard)

- + another building project

E-board meeting Monday, August 15, 2016 – Chris Myers KB1NEK

We had an extended discussion of ways to do outreach to potential new hams, especially from students at Greenfield Community College. Jeanne proposed we should plan to conduct a class to teach for the technician's license, and hold the class at GCC. She suggested that we should plan for a publicity campaign on campus well in advance of the class.

As AI pointed out, teaching a license course on campus, with reasonable publicity, would offer a fringe benefit of letting the GCC administration know that we are not just using the available space for limited private purposes, but would like to do what we can to serve the community.

After much discussion about timing the course and generating publicity for it, we decided to aim for October 2016, about a month or so after the start of the fall semester.

Keith reported that he has wired a tone decoder board that can be used for remotely disconnecting the repeaters on Rocky Mountain in Greenfield, to make our operation compliant with FCC regulations. AI has an old scanner that he will give to Keith to test with the decoder. It is not clear what else can be done in addition to disconnecting the power to the two repeaters at the site.

Al and Keith both have radios capable of C4FM transmission used by the new Yaesu repeaters. Al said he plans to buy another, which will have the added advantage of APRS connection

News, Activities & Articles

Upcoming Tech class to get licensed

The Club is going to run a class for folks who want to get a Tech license. We are looking at four evenings over two weeks and a Saturday morning followed by an exam in the afternoon. The cost will be the book (about \$25). If you know anyone who would like to have some support to get their license please have them contact Jeanne Dodge KC1DCQ, dodge@gcc.mass.edu. The class will be at GCC and Jeanne is the contact person there. A list will be started for those who are interested.

Annual Fox Hunt

We will have our annual fox hunt on Saturday, November 12th, after the club breakfast. All are invited to come; if you know anyone who would like to join us they are most welcome. If you have never done a fox hunt, there will be folks with experience to pair up with.

TRIATHLON AUGUST 7th, Jeanne Dodge KC1DCQ

This year was a fairly uneventful day, and that is a good thing. Except for needing to have a new map next year, it was a fairly smooth start to our busy August of Community Events. We had 12 club members, one interested in becoming a Ham volunteer and a new Ham friend providing communications for the Triathlon. The members who helped were: Belle KB1NOG, Al N1AW, Bob WA1QKT, Ron KBH3F, Anne KC1CRS, Keith KC1B2B, Keith KU1N, Chris KB1NEK, Cathy KB1SNA, Gary KB1AKU, Chet N1XPT ; Erika (doesn't have her license yet), helped with net control and Bob KB1WWR (Head Referee for the Triathlon) came by and gave us his call sign and used his radio to help keep us informed what was happening.

Bridge of Flowers Race, August 13th, Chris Myers KB1NEK

Once again thirteen club members and one friend from outside the club provided communication around the course of the Bridge of Flowers race. In spite of the unusually high temperature and humidity, and the threat of a possible thunderstorm, the race went without serious incident.

For the first time this year, we assigned one operator, Anne, KC1CRS, to stay by the side of the race coordinator, Carmela Lanza-Weil, in order to facilitate decision making communications. This proved to be a significant improvement over the process used in past races. It allowed the race coordinator to concentrate on her job, and leave the communications to one of us.

The other new step we took was to plan to have one of us, Chris, KB1NEK, operate a radio capable of operating on ham radio as well as public service frequencies. Whether this feature actually helped or not is not clear, but throughout the race ambulance and police radio traffic went smoothly and was continuously monitored by our net control team

Deerfield Dirt Road Randonee (D2R2), August 20th, AI N1AW

This was our fourth year supporting the Franklin Land Trust's Deerfield Dirt Road Randonee, known as the D2R2. Each year this event has grown. A few years ago the event was limited to 1000 riders, this year there were 1400. The riders follow routes ranging from a 16 mile family ride to a 180 Km loop. This year the event added a "Mystery Ride" of over 100 miles with route details kept secret until the last minute. Routes go through many rural areas in Franklin County and southern Vermont where cell phone coverage is marginal or absent. Water stops and lunch sites need to be able to communicate with event headquarters in Deerfield. And that is where amateur radio comes in. Five years ago the Land Trust spent a lot of money on a renting a satellite communications system that did not work very well. Then the Land Trust's Development Officer met an FCARC member at a fund raising event and asked if we could help. We have been a part of this event since that time.

This year we provided communications between four lunch sites and Deerfield. Two sites were on opposite sides of the Green River at the Guilford VT covered bridge - normally there would be just one lunch site here, but the bridge is closed for major repairs this year. More than 1000 riders were served lunch here. Roy K1LKY and Chris KB1NEK were stationed on the east side; Bob WA1QKT and Ron K1HSF were stationed on the west side. In Whitingham VT several hundred riders following the longest routes got lunch at a site where Amy AB1WH, who lives not too far away, kept event volunteers in touch with Deerfield. A smaller group of family riders received their midday meal near the 10 Mile Bridge that connects East Colrain and West Leyden; Cathy KB1SNA and Keith KU1N took shifts there. Net Control in Deerfield was handled by Jeanne KC1DCQ and Bob W1SRB. AI N1AW helped with setup and takedown of the shelter at Deerfield; he had been scheduled to help at a remote site, but a volunteer who had not signed up in advance appeared to take that shift. AI was freed up to tour around and see how things were going at remote locations.

Logs from net control show almost 60 communications exchanges between remote sites and the headquarters. Many of these were just routine check-ins to be sure all was well at each location, but some genuine problems were dealt with. For example, after a rider reported losing car keys on one of the routes word was relayed to event volunteers at all sites, and when the keys were found and turned in the rider could be reassured that his keys would be at the event HQ tent in Deerfield when he completed his ride. On another occasion a rider's bike suffered unrepairable damage and our communications helped arrange a ride back to the start. And at one point the most remote lunch stop ran out of water; our communications facilitated locating the closest site with extra carboys of water that could be delivered to where it was needed. AI, N1AW

Photos from our busy summer



Ham Radio mystery musing – Bob Bessette W1DKY

Like many other things, Ham Radio has its share of mysteries: During WW2 I served in our Navy, assigned to the Navy Research Laboratory down across the river from Washington. One of the projects in which I participated, as a helper changing antennas, per directions, while the main director project was carried out on the island of Trinidad, just north of Venezuela and in the Caribbean Sea.

The project was classified as top secret, and , unfortunately it turned out to be a failure, while, for me, it provided prime opportunity for me to question a direction finder expert about something that happened to me while operating my simple ham radio station.

Back in the middle and late thirties, the hams in our informal group in Springfield, Mass. aspired to work one or more Australians on 40 meters. If you were lucky you immediately became a distinguished member. The Australian prefix was and still is VK. To do this, we would get up at 3 or 4 in the morning and fire up our one tube transmitter and our two tube receiver and then try to contact one or more VK's. Once in a while we won but most of the time we lost – but it was worth the effort.

In those days we knew the sun figured in the picture but our knowledge didn't extend beyond knowing it produced both heat and light, but affecting radio waves? Nyet.

Now for the mystery that suggested the theme for this article: -

Having fired up my transmitter, I started to call CQ but as I keyed the transmitter I heard my keying duplicated. To better understand: when I made a dot, as I released the key I heard a second dot, but at greatly reduced amplitude. This immediately generated the question: Could it be that I was hearing my signal after it had circled the globe? (the earth's circumference is roughly 25,000 nautical miles). If you divide 25,000 into 186,300 (?) you get (to keep it simple) a little more than 7 times, which suggests that the interval between sent and received dots was about a seventh of a second, which seemed to answer my question.

Doesn't it seem plausible that I was listening to my own signal?

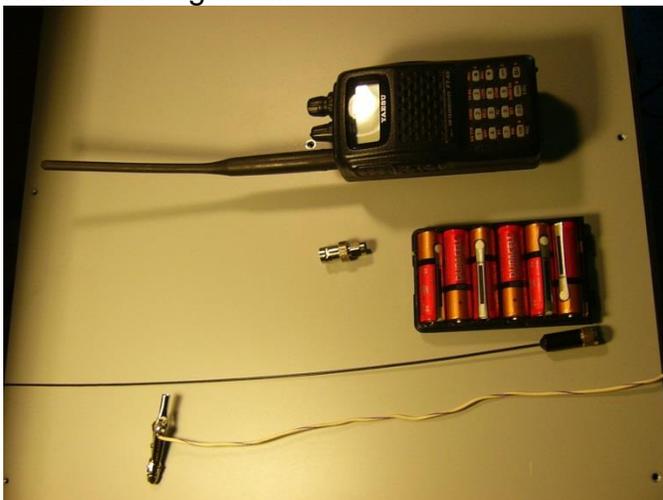
I posted this question to our civilian DF engineer and he answered as follows: "While I don't deny the possibility that you heard your own signal, the fact that you were not able to time the difference suggests to me that what you heard was a reflection off a mountain range probably in north west Africa – common problem popping up in a direction finding. (Just between us guys, though I still think I heard my own signal.)"

HT Accessories

Al Woodhull, N1AW

A club member contemplating buying a new FT-60 HT asked me about antenna alternatives and other accessories. Different people may have other ideas, but here are some of my recommendations.

In the photo below are four very useful accessories for the FT60 - an SMA to BNC antenna connector adapter, an alkaline cell battery pack, a 1/4 wave whip antenna, and a homemade tiger tail.



The 1/4 wave antenna is a more efficient radiator of r.f. energy than the factory-supplied rubber duck. The tiger tail is another 1/4 wave wire that can clip onto the ground side of the antenna and dangle down beside the handheld to make an efficient bottom half of a vertical dipole antenna. Older handheld radios universally used rubber ducks with easily connected

and disconnected BNC connectors, and the SMA to BNC adapter lets you use one of these. Also, a short length of small coax (RG-174) with BNC connectors at both ends can be used with other adapters to connect to coax with UHF or N connector adapters for connection to large mobile or fixed antennas. The AA alkaline cell adapter can keep you on the air when your rechargeable batteries run down, and it can sometimes be easier to find another set of alkaline batteries than to find a place to plug in a charger.

In the second photo you can see that the springy wire of the 1/4 wave whip can be coiled to fit in a pocket. It straightens completely when uncoiled. The tiger tail is just hookup wire with a modified alligator clip. The wire can be straightened or coiled for storage as desired.



I have a little pouch that was originally a carrying case for a small camera. I have repurposed it as my HT Go-Kit. In addition to the items described before there is also room for a spare set of 6 AA alkaline batteries and some pages copied from the FT-60 manual and reduced to about 1/4 of the original size for printing. The pages I have often felt the need for are pages 6 and 7, Controls and Connectors; pages 22 and 23, CTCSS Operation, pages 28 and 29 Memory Mode; and pages 66 and 67 Set (Menu) Mode. Yes, these pages are hard to read, but they are valuable and worth the effort when you are away from home and need to change a setting or add a memory and can't remember how to do it.



Of course you want to have the original rubber duck with you too. Among other reasons, if you are using the HT in a crowded space the 19" wire antenna could poke someone in the eye. The rubber duck almost fits into my HT Go-Kit.

THE COMMUNICATOR is an informational publication for members of the Franklin County Amateur Radio Club. Officers: President: Al Woodhull, N1AW (n1aw@arrl.net), Vice President: Ron Niswander, K8HSF (reniswander@gmail.com), Treasurer: Howard Field, N1LUP (howfield@comcast.net), Secretary: Chris Myers, KB1NEK (camyers1@verizon.net), Director: Belle Dyer, KB1NOG (bdyer58@mtdata.com), Director: Bruce Fuller KB1TLX, (perkinsdowns@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).