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

FIRST CLASS MAIL

THE COMMUNICATOR

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June 2014

Upcoming Events

- Club Breakfast: Saturday June 14, 8 a.m.: Denny's, Greenfield
- E-Board meeting: Monday June 16, 6 p.m.: Greenfield High School cafeteria
- Annual Meeting, Officers Election & Program: Monday June 16, 7:15 p.m.: Greenfield High School: Program - Program: Demo of N1MM Logger by Matt, W1MSW
- Field Day: Saturday & Sunday June 28/29 all day: Poet's Seat Tower, Greenfield
- Club Breakfast: Saturday July 19, 8 a.m.: Denny's, Greenfield
- E-Board meeting: Monday July 21, 6 p.m.: Greenfield High School cafeteria
- Triathlon: Sunday August 3, 7 a.m.: Nash's Mill Rd., Greenfield
- Bridge of Flowers Race: Saturday August 9, 7 a.m.: Shelburne Falls
- Club Breakfast: Saturday August 16, 8 a.m.: Denny's, Greenfield
- E-Board meeting: Monday August 18, 7 p.m.: Plan for next year, location TBA
- Franklin Land Trust Bicycle Tour (D2R2): Saturday Aug 23, All day: Deerfield - Vermont

June 2014

Calendar

E-BOARD AND PROGRAM MEETINGS, MONDAY JUNE 16 AT GREENFIELD HIGH SCHOOL

Monday June 16th at GHS. E-board meets at 6.p.m., coffee and snacks in the cafeteria at 7:00 p.m., regular meeting follows in the small Auditorium (room 59). This is our annual business meeting to elect officers for the club year starting next September. We will also have a program presentation on the N1MM Contest Logger program by Matt Wilhelm, W1MSW.

Elections: officers' term expirations are now posted on the Club Officers page on the website (click here). Up for election this year are the positions of President (currently Chris KB1NEK), Secretary (currently Bob WA1QKT), and one of two directors (currently Belle Dyer). The Nominating Committee is composed of those officers whose terms do not expire this year, Howard N1LUP, Ron K8HSF, and Al N1AW. If you want to nominate someone (possibly yourself) please contact one of them. Nominations can also be made at the election meeting, but the person being nominated must be present and consent to be nominated. A Nominating Committee report will appear in the June Communicator.

FIELD DAY, JUNE 28-29, POETS SEAT, GREENFIELD

Field Day is always the fourth full weekend in June. As usual we will be at Poet's Seat, starting setup about 9 a.m. on Saturday, operating from 2 p.m. Saturday until 2 p.m. Sunday. We operate in Class 2A, one station for SSB and digital operation, one station for CW. We will also have a VHF station, 6 meters and possibly 2 meters and 70 cm, and a GOTA (Get On The Air) station for new hams, not-yet-hams, and anyone else interested in tasting HF operation.

PUBLIC SERVICE ACTIVITIES

In early August we will assist with communications for the Greenfield Triathlon and the Bridge of Flowers 10K Race. The June Communicator will name the coordinators of our efforts in these events. Later in the summer we expect to assist with fund-raising bicycle tour events supporting the Franklin Land Trust and the Western Massachusetts Food Bank, as we did last year.

Non-FCARC happenings to be aware of this summer are several public service opportunities in Vermont and New Hampshire, the World Radiosport Team Competition, and the ARRL Centennial Celebration.

Secretary's Report

E-BOARD MEETING SATURDAY, MAY 31, 2014 – BOB DICKERMAN WA1QKT

1. Field Day (FD) planning
   - HF CW station: We may use club screen tent if weather is nice, for more exposure to public, else, if weather is inclement, we'll use 6-person pop-up tent from Bob W1SRB. Radio will be IC-706. Al will bring 80/40/20 m dipole, Rich KB1NOX offered the use of his 80/40 dipole.
   - HF SSB station: Shelter will be Carter WA1TVS's RV and radio will be Bob WA1QKT's FT-450AT. Considering eliminating 80 m, and raising a shorter 40 m dipole to a greater height; also hang the 20m Moxon from tower; have new desk mic to try.
   - VHF station: Phill N1YPS is considering setting up in the grassy field this year, instead of on top of tower, depending on weather. Phill will bring rain shields for tower.
   - Cindy W1CAD will help with food for Saturday lunch; starting point for menu will be last year's menu, Carter will make breakfast in his RV, and maybe this year we'll have the traditional pizza at noon on Sunday.
   - We will be using newer laptops and logging software this year. Al/Bob/Chris will bring laptops loaded with N1MM logging software.
   - Bob W1SRB will make press announcement to The Recorder, and Chris KB1NEK will enter our FD station announcement on the ARRL website.

2. Matt W1MSW will be presenting a demo of the logging program N1MM at our June 16 meeting. This is the "new" logging program we will use at Field Day this year, so folks who think they might want to try operating or logging at FD might want to come to the June meeting to become familiar with it.

3. Upcoming Public Service Events:
- July 12, Prouty Race, Hanover, NH.
- July 19&20, Vermont 100.
- August 3, Greenfield Triathlon, Rich KB1NOX organizing.
- August 9, Bridge of Flowers, Chris KB1NEK organizing.
- August 23, D2R2 Franklin Land Trust

4. Elections: No nominations mailing was made, no nominations have been received yet; a slate of candidates will be collected by board members before the June 16 meeting. Up for election will be the President, Secretary, and a Director. A new Clerk also should be elected or appointed.

5. Summer E-board meetings will be at various members' homes. We think that space at GHS will continue to be available for regular meetings, starting in the fall.

6. The board accepted Chris KB1NEK's offer to trade his MFJ-259B (HF+2m) + $100.00 for the MFJ-269 (HF+2m+440) donated to the club by Barbara and John Berrigan, with the caveat that the club will be able to borrow the MFJ-269 if needed (for working on the 440 repeater, for example).

7. Bob WA1QKT recently spoke to Betty Congdon, who asked whether club members would come and help take down SK Walt W1ZPB's antenna farm in Northfield. The board agreed to, at least, start the job after our next Denny's breakfast on Saturday, June 14, if Bob can confirm this date with Betty.

FCARC PICNIC, MAY 31, 2014 AT LEYDEN ELEMENTARY SCHOOL– BOB DICKERMAN WA1QKT

After a brief hiatus, the FCARC revived it's tradition of a yearly picnic this year, at the Town Field next to the Pearl Rhodes Elementary School in Leyden. The picnic grounds has an open, mown grassy field, a pavilion with electricity, a kitchen with running hot and cold water, and bathrooms.

The picnic was kicked off before noon with a couple of mini fox hunts, held roughly within the boundaries of the picnic grounds. Before the hunts, Bob WA1QKT turned on the foxbox and placed it next to the pavilion so that hunters could check their radio location equipment. For the first hunt, Bob W1SRB surreptitiously placed the fox in plain sight in an open field, about 100 yards from the pavilion. Within about 10 minutes everyone found the fox. The hunters then tested their radio location equipment for a few minutes using the fox at the known location. For the second hunt, the hunters gathered in the kitchen while Julie KB1WTP hid the foxbox in a much less accessible location near a brook in the woods just beyond the periphery of the field. This location provided a greater challenge to the hunters, in part because it was fairly well hidden in the woods, and also because it was behind a metal chain link fence. Some of the hunters used HTs and body fading, and others used beam antennas with attenuator devices or dedicated direction finding devices. About 9 different people hunted for the fox at various times.

After the foxhunt, the E-board held its monthly meeting under the pavilion.

While the E-board meeting was in progress, food was taken out and prepared, and the picnic lunch started. The potluck items brought by various members were varied and delicious, and Julie KB1WTP grilled the hamburgers and hot dogs, under the supervision of Carter WA1TVS.

A small swapfest, with radio and electronics equipment that was closely examined and discussed, was held, and several exchanges were made.

Fred and Janice Smead, who hosted the club picnic at their home for many years, were able to attend this year. Fred brought one of his present restoration projects, an antique 1936 RCA BC+SW receiver that he has stripped to the chassis and is now rebuilding. He gave onlookers a tour of the project, which included rebuilding and fabricating from scratch many of the radio components themselves, such as transformers, capacitors, and cables. His detailed exposition of the automatic tuning preset mechanism was fascinating.

Attendance at the picnic was good, especially considering the new location. 21 people were accounted for on the sign-up list, but multiple unofficial counts were higher, in the neighborhood of 26 people.

We thank Al N1AW for organizing the picnic. Thanks to all who helped with the event, and to all who attended.

















News, Activities & Articles

AMATEUR RADIO LICENSE EXAMS RESULTS – AL WOODHULL N1AW

The FCARC VE team held an Amateur Radio License exam session on Monday May 26th. Three candidates qualified for new Technician licenses, and on Friday May 30th their new callsigns appeared in the FCC ULS database:

Keith Rowley of Greenfield is KC1BZB
Scott Duffus of Guilford VT is KC1BZC
Leon Small of Warwick is KC1BZD.

In related news, two people who recently participated in our VE sessions have new callsigns:

Rose Ganim became KC1BHY after our February VE session. She subsequently upgraded to General and changed her call to WN1TUA. Frank Smith gained a new General license in our November 2012 session. He upgraded to Extra in June 2013 and changed his call to WS1M.

Our next VE session in Northfield will be August 25, 2014. For more information see the Amateur Radio License Exams page on the FCARC website.

FIELD DAY PLANNING AND OPERATIONS – HELP NEEDED

Planning for equipment and setup is fairly complete as described in the minutes of the e-board meeting above. However, help is still needed for some of the operations:

- Scheduling & operating CW station
- Organize and participate in the effort to make QSOs on 2 m FM early Saturday and periodically, whenever 6 meter station is not operating (we can have one VHF station operating at a time)
- Invite and guide guests for these bonus points:
  - 7.3.11. Site Visitation by an elected governmental official:
  - 7.3.12. Site Visitation by a representative of an agency:
- Be a GOTA coach and get more users for the GOTA station?
- Provide anchors for tents (screen or not) - cinder blocks or similar?
- Recruit & schedule SSB operators

TRY CW ON FIELD DAY! AL WOODHULL N1AW

Field Day provides a very good opportunity for you to get some practice in CW operating. You may have once learned Morse code to pass a license test, but stopped using CW as soon as you reached your goal of five or thirteen words per minute. Or you may have learned CW more recently but fear you are not up to using it in a contest. Give it a try on Field Day! It's easier than you think. Here are eight reasons why:

1. Since the code requirement for a license was dropped, a lot of people have decided they want to learn (or re-learn) and use CW anyway. For some it is the allure of history, the same reason people re-enact medieval tournaments or hunt with primitive firearms. For some it is the realization that CW equipment can be incredibly simple and cheap - you can easily build a CW transmitter yourself. But one result is that there will be many stations on the air during Field Day whose operators are not the super-competitive CW speedsters you hear at the low end of a band during a major international DX contest.

2. "Field Day is not a contest" - well, yes, sort of, but Field Day is the most popular on-the-air event in the US. Yes, you will find some really fast CW in the lowest 25 KHz of the bands during Field Day. But if you tune up 50 or 75 KHz higher than that you may find stations calling CQ at 5 wpm (words-per-minute) or even less; you may find that you get a slow-speed response if you call CQ slowly yourself on a clear frequency high above the lower limit of a band.

3. Contest operation is simple. On Field Day you need to log only the most basic information - a call sign, a station category, and a two or three letter ARRL section designator. Furthermore, if you are responding to "CQ" calls from other stations (S&P, Search and Pounce mode) you can listen while the CQing station sends his

information to several others and know exactly how he will reply to you before you call him. (This, by the way, is a technique voice operators also can use in a contest).

4. We will use a computer logging program for both the SSB and CW stations at FCARC Field Day. The computer at the CW station will be interfaced to the radio, so you will not have to use a key to send CW by hand. For most of what you will send you don't have to type anything, either - several Fn-keys will be programmed to send common messages, like "CQ", our callsign ("AC1L"), our exchange information ("2A WMA"), and common messages like "TU", "AGN?", or "PSE QRS".

5. You will find that with the very simple amount of information exchanged in a contest your effective CW speed may be higher than you think it is. Although I can (barely) copy CW transmissions from W1AW at 20 wpm, I can reliably copy simple contest info at 25 wpm or more. When sending, my fingers make mistakes if I try to send faster than 20 wpm, but I can set the computer to send at 26 or 28 wpm (maybe higher, but it's not a good idea to send faster than you can receive).

6. Yes, as stated above, "Field Day is not a contest." But a station can be worked twice, on both CW and SSB, on each band. And CW or digital contacts during Field Day count for two points each, versus just one point for a SSB contact. So even if you accumulate contacts slowly you can make a big contribution to the FCARC score if you make CW contacts.

7. Help is available. You don't have to do this alone (unless it's the middle of the night and nobody else is awake). Having someone else helping you copy what is being received, or handling the computer end, are always options.

8. You will be a better operator afterward - you'll find your ability to send or receive CW will improve with the practice you'll get in a few hours of contest (oops, "it's not a contest") operation.

PILEUPS, SPLITS, AND W1AW/PORTABLE - AL WOODHULL N1AW

Since January 1, 2014 the ARRL has been celebrating its Centennial in several ways, one of which has been operating under the call of W1AW/portable from every state and many US territories. Almost every week this year, starting at 0000Z Wednesday morning (2000 EDT Tuesday) two more states take over. By the end of 2014 two W1AW/portable operations will have occurred from each of the 50 states.

When I was first licensed a WAS (Worked All States) certificate was the goal of every teenage Novice. However, since I never was able to make my homemade transmitter and low-end receiver work on 15 meters I rarely made a contact with a station west of the Mississippi. In later years I never thought seriously about trying for WAS until this year. I have decided to go for it this year by working a W1AW/portable operation in each of the 50 states.

I didn't really decide to do this until the middle of February, but each state I missed at the start of the year has had or will have another opportunity to host a W1AW/portable operation. I'm a little more than halfway, at 30 states worked now. I haven’t yet had a chance at Alaska and Hawaii which are likely to be the most difficult. But I've been having good luck. I often manage to make myself heard by a distant station after only a few calls.

I have learned some techniques that are well known to serious contest operators. If you are a contesting expert, then stop reading now, you already know what I'm going to say.

What I have learned is two ways of using technology that was not available to me, or even the big guns, when I was a Novice in 1957. One such technology is the Internet. On the Reverse Beacon Network (http://www.reversebeacon.net) you can see a list of sites around the world that are using software to decode the callsigns of CW and other digital mode stations audible at their locations. The relative signal to noise ratio at each listening site is decoded. You can also select a single callsign that you want to know about. So, for instance, as I write this I can see that W1AW/5, a Louisiana station operating under that callsign this week, is currently being heard in many locations throughout the US and Europe on frequency 14033.1 KHz. Furthermore, I can see that one of the reporting sites is K1TTT, not very far away in Peru, MA. K1TTT is reporting a 30 dB signal to noise ratio for W1AW/5. This tells me this is a good time to try. In fact I worked W1AW/5 on 20 meter CW with 25 watts to a vertical antenna just before I sat down to write this.

Of course the RBN works only for modes that can be decoded by a computer. But if SSB is your preference there are other sites that report "spots" of signals of all modes. One example of a spotting site is http://www.dxsummit.fi/. You can't specify a single station and signal strength reports are not automated, but as I write this I can see that W1AW/4 in Alabama, the other W1AW portable site active this week, was heard seven minutes ago in Pennsylvania. The 18139 KHz SSB was given a 59 report.

The other technology that I didn't have as a Novice, now standard on most modern rigs, is the ability to listen and transmit on separate frequencies, switching rapidly between them by using dual VFOs or RIT or XIT (receiver or transmitter incremental tuning). A station that is dealing with a large number of stations wanting to contact it will typically operate "split" - for instance a CW station may call "CQ W1AW/5 UP" which means that W1AW/5 will listen on a frequency approximately 1 KHz higher than its transmitting frequency. This means all but the clueless (there may be one or two) will not mask the CQing station's signal by calling on his transmitting frequency. So everyone trying to respond to the CQer will be able to hear him, and to know whom he has heard. Also, the smart responding stations (one of which I claim to be) can call at frequencies plus or minus a little from the nominal 1 KHz up in the hope of finding a relatively clear spot. In fact, the really smart way is to listen and see which station the CQer answers, and try to call on that station's exact frequency or determine if the CQer has a pattern and seems to look for his next responder above or below the frequency of the last one.

Split operation is very common for "rare" DX stations, as well as for the W1AW/portable operations. A station operating SSB also can work this way - it is common for SSB stations in demand to listen up 3 KHz on SSB.

By the way, if you don't want to bother with the Internet, you can probably find a W1AW/portable operation, or a rare DX station - any station much in demand - just by tuning the bands and listening for a pileup. An SSB pileup sounds like someone occasionally opening the door to a room where a lot of people are shouting callsigns. A CW pileup is similar, a whole lot of CW signals interfering with each other. The intervals when the door is closed are when the rare station is actually transmitting. When you hear a pileup it is very likely that the rare station is operating split - tune down in frequency a little way (or possibly up) and maybe you'll hear the DX station. If you can't hear him he probably won't hear you, so why waste time. But on the other hand, if in the pileup you hear someone who is not too far away from you and that station seems to succeed in making the contact then maybe you just need to look a little harder to find the rare one.

In addition to the W1AW/portable operations, we seem to be still near the peak of the sunspot cycle. This year is a good time to experience HF operation at its best. Take advantage of it!

AN INTERESTING STORY- THE LAST ISSUE OF THE IEEE LIFE MEMBERS NEWSLETTER HAD THIS STORY SUBMITTED BY ALBERT HELFRICK K2BLA (USED BY PERMISSION).

In the summer of 1969, my graduate education was interrupted by "greetings" from Uncle Sam, inviting me to join the war in Vietnam. After basic training, I was assigned to the signal school at Fort Gordon, Georgia, for "advanced individual training." I was to be trained to be a radio carrier operator, which involved setting up and operating radio links for telephones and teleprinters. The equipment "van" was a shelter about the size of a small walk-in freezer with a rack of equipment on one wall and a couple of bench seats on the opposite wall. The van ceiling was barely 7 ft., which would preclude quite a few basketball players from this specialty. Down the center of this van was a single fluorescent tube for illumination. At that time, to handle the large number of new soldiers required for the war effort, training was done in two shifts. I was in the second shift, which started late afternoon and ended shortly before midnight. One night, my partner, a young high school graduate, and I were to establish a radio link with another group a few miles away somewhere in the woods but still inside Fort Gordon. A long-time radio amateur, I was able to make the connection in a few minutes, and then we found ourselves bored with nothing to do. As a young ham radio operator, I knew that if one held a fluorescent tube or a neon bulb near an antenna or the vacuum tube of a radio transmitter, the electric field was enough to light the bulb with no wires connected. This is something radio hams learned early in their radio careers. Looking for some excitement, I told my young partner to take the spare transmitter and one of the extra antennas and to put the antenna on top of the rack of equipment and load up the transmitter. This arrangement placed the antenna a fraction of a meter from the fluorescent light fixture in the center of the van. I opened the door of the van and the light from the 40-W fluorescent tube streamed from the open door and broke the darkness of the Georgia woods. A young lieutenant a few weeks out of officer candidate school came running toward us shouting, "Turn off that light! We are to maintain blackout conditions!" He reached just inside the door and threw the light switch down and the light did not extinguish. "Must be a bad switch," he exclaimed. "Yes sir! Bad switch!" I replied. "Take the bulb out of the socket," he offered as a solution to the problem. I complied and had the bulb, still

illuminated in my hand but completely free of the socket. “Must be a bad socket sir,” I suggested. That poor young lieutenant looked at the bulb, at me, back to the bulb, and slowly and deliberately turned away and walked into the darkness

Al Helfrick, K2BLA, has been continuously active since 1957. He has 10 band DXCC including 2 meters via EME. He is a semi-retired department chair of the EE department at Embry-Riddle Aeronautical University in Daytona Beach. When not “radio-active” he plays tuba in a Dixieland jazz group and a brass quintet.

THE COMMUNICATOR is an informational publication for members of the Franklin County Amateur Radio Club. Officers: President: Chris Myers, KB1NEK (camyers1@verizon.net), Vice President: Al Woodhull, N1AW (n1aw@arrl.net), Treasurer: Howard Field, N1LUP (howfield@comcast.net), Secretary: Bob Dickerman, WA1QKT (rld@dickermanelectronics.com), Director: Belle Dyer, KB1NOG (bdyer58@mtdata.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 Bob Solosko at w1srb@arrl.net.