

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



FIRST CLASS MAIL



# THE COMMUNICATOR THE COMMUNICATOR

**November 2013**

## Upcoming Events

- Club Breakfast: Saturday Nov 16, 8 a.m.: Denny's
- E-Board meeting: Monday Nov 18, 6 p.m.: Greenfield High School
- Meeting & Program: Monday Nov 18, 7:15 p.m.: Greenfield High School: Program TBA
- VE license test: Monday Nov 25, 7:00p.m.: Northfield Unitarian Church
- E-Board meeting: Monday Dec 9, 7 p.m.: location TBA
- Club Breakfast: Saturday Dec 14, 8 a.m.: Denny's, Greenfield
- Holiday Potluck : Monday Nov 16, 6:00 p.m.: Greenfield High School cafeteria
- New Year's net: Tuesday Dec 31, 11:50 p.m., 146.985 MHz

# November 2013

## **REMINDER: DUES ARE DUE NOW!**

### **Calendar**

#### **NOVEMBER CLUB BREAKFAST**

The November club breakfast will take place starting at 8 a.m. Saturday, November 16 at Denny's Pantry, 469 Bernardston Rd in Greenfield

#### **NOVEMBER E-BOARD AND PROGRAM MEETING**

The E-Board meets at 6 p.m. on November 18 at GHS, prior to the regular club meeting. Our Program Meeting will be November 18 at 7:15 p.m. at GHS. The program is TBA.

### **Secretary's Report**

#### **E-BOARD MEETING, MONDAY, OCTOBER 21, 2013 – BOB DICKERMAN WA1QKT**

1. Casey Self Storage work bee Monday Oct 28 at 9:30 AM to build FCARC shelves
2. Equipment selected for placement at Casey:
  - In: Field Day items, canopy, hexbeam
  - Out: Some items will still be stored at members' homes if not enough room
  - Inventory: List will be made
3. Treasurer's report: Account balance \$1758.00
4. Future meeting program topics possibilities
  - WD4ASW Barry Baines, AMSAT President April 28, 2014, on amateur satellites
  - WA1MBA Tom Williams, on UHF/microwave/antennas?
  - KC5ZTH Cady Coleman, on space exploration, ham radio on space station?
  - Yankee Clipper Contest Club YCCC, on contests?
  - DVD on severe weather patterns, floods, or National Weather Service speaker from Rhode Island?
  - KB1NOX Richard on battery care and charging
  - N1XPT Chet on D-STAR, if suitable radio/internet facilities can be arranged?
  - AB1RS Rich on U.S. railroad system?
5. 440 MHz repeater status: on-the-air, with reduced transmit range due to temporary lower-elevation 1/4 wave ground plane antenna. N1AW Al said he's thinking about installing a gain antenna, perhaps higher up on the tower. Possibility that KC5KKS Kevin can climb tower to help, will ask.
6. We would like to acquire more modern, more reliable 2 m / 440 MHz club radio to use for net control at public service events and emergencies; existing radio has had problems, including audio distortion. Agreed that Yaesu FT-8800 50W Dual-band, dual-channel, w/cross-band repeater capability would be good choice at about \$300.00. Several members own this model, and this is the radio at the hospital. Decided to vote at general meeting on whether to purchase this.
7. N1XPT Chet has resurrected his packet controller on 145.050 MHz, and hopes to bring KB1NOG Belle's packet station up again, and is encouraging members to get packet stations on the air to help strengthen the packet network.

#### **SECRETARY'S REPORT FOR OCTOBER 21, 2013 FCARC MEETING – BOB DICKERMAN WA1QKT**

We met in the GHS cafeteria. Bob WA1QKT brought coffee, and Belle KB1NOG brought delicious, homemade blueberry muffins. The meeting was brought to order at 7:15 PM by Chris KB1NEK.

(Note that construction has begun at GHS, so we now have to park on the north end of the school, which is the side closest to Silver Street.)

The first order of business was to discuss and vote on the possible purchase of a Yaesu FT-8800 50W dual-band, dual-channel transceiver with cross-band repeater capability, to use as main club radio at club public service events and for emergency work. Our existing 2 m radio has proven to be inadequate in terms of reliability and performance. Expected cost for FT-8800 is about \$325.00. After discussion, a motion was made and seconded to purchase, a vote was taken, and the measure passed unanimously. Howard N1LUP will order.

Chris announced that a work party would be held on Monday, Oct. 28 at Casey Self Storage to build FCARC shelves for holding club equipment used for Field Day, public service events, and emergencies. The unit is #S69. Five club officers have keys to this unit.

Al N1AW and Bob WA1QKT discussed the 'Say "Hi" to Juno' spacecraft flyby amateur radio experiment that they participated in. Juno is a NASA space probe that is on it's way to planet Jupiter. It has a HF receiver with a wide detection bandwidth of 1.0 MHz onboard for studying Jupiter's radio and plasma waves (see <http://www.jpl.nasa.gov/hijuno/>). It "slingshotted" by the Earth on October 9. NASA set up a web page that guided CW ham operators all over the world on the 10 m band on that day to go "key down" for 30 seconds at a time, with the same or longer "key up" intervals, to send the Morse code phrase "hi juno" at a rate of 1/25 WPM. The hope is that the spacecraft was able to detect the synchronized, super-slow, ham radio transmissions. Al showed some time-lapse photos, later provided by NASA, of the satellite moving across the sky. Both Al and Bob heard other operators participating; Al said that, when he later contacted NASA to inquire about results, he was told that approximately 1400 hams requested QSL cards to commemorate their participation in the experiment. However, NASA's data analysis and reporting of the experiment was affected by the U.S. government shutdown, and no radio results been reported yet.

Chris KB1NEK spoke about emergency communications and related activities. He began by mentioning some of the emergency work that our members have done over the years, at EOCs, hospitals, and Red Cross shelters.

He said that, in March 2012, a conference between governmental organizations and the Red Cross was held to try to plan better for locating and setting up emergency shelters. The Red Cross revealed that in a large disaster, they could only be counted on to set up a single shelter in Franklin County, and if more were needed, they would have to be set up by local municipal leaders; if the Red Cross was to later take over management of such shelters, the shelters would have to meet certain Red Cross standards. These include requirements for a generator, toilets, showers, handicapped-accessible, with enough communications, amongst others. Primary shelter locations that were identified in our area include the Orange Armory, Franklin County Technical School, the Greenfield Middle School, Mohawk Trail High School, amongst several others. These locations were chosen so that they'd be accessible during bad road conditions, and so that they could be reached without crossing rivers in times of flooding.

Chris next discussed Community Organizations Active in Disasters (COAD), an organization of organizations that is trying to coordinate the activities of various groups during emergencies. Representatives from various governmental organizations, the Red Cross, the Food Bank of Western Massachusetts, and others have met a few times; Chris has been invited to the meetings to represent the amateur radio community. The next meeting will be in Greenfield in early November, and will be hosted by Tracy Rogers, FRCOG Regional Preparedness Program Manager (who also happens to be Andrew KB1TKB and Alex's KB1YZA mom). Chris said that one immediate benefit of this

collaboration is that members of the different groups will now know each other before an emergency occurs. For instance, now, in an emergency, local Red Cross leaders will be able to ask for help from contacts in our club directly, instead of going through the Springfield Red Cross office.

Chris said that CERT lists 2-way radio, including ham radio, as an emergency communications method, and recognizes it as a method that can have a range of over 100 miles, if repeaters or HF equipment are employed.

Phil N1LUP mentioned that, recently, Tom N1OTS made a list of members who might be able to deploy with radio equipment, portable generators, and 4WD vehicles, and suggested that Chris should either acquire that list, or make a new one.

Chris said that, on a related topic, Butch Garrity at Shelburne Control would like a list of pre-CORI-checked operators that might be available to take turns running a ham radio station at Shelburne Control that would provide a liaison between the 911 and the amateur community during disasters. Hams living in the Shelburne area would be best because of proximity, but others who might be able to travel there are welcome. Contact Chris to volunteer.

11 people attended the meeting.

## **News, Activities & Articles**

### **CROP WALK, OCTOBER 20TH – PHILL GRANT N1YPS**

The CROP Walk for 2013 took place this year at Trinity Church on October 20th. CROP is an acronym for Christian Rural Overseas Program. Its primary mission was to help Midwest farmers to share their grain with hungry neighbors in post-World War II Europe and Asia. Today, CROP shares nearly \$4 million with food banks, pantries, community gardens and other local efforts across the USA.

Being in “the Falls” area, we used simplex frequency 147.435 for radio work. Net Control was Chet, N1XPT. FCARC members that participated that lovely fall afternoon were: Richard Stewart KB1NOX, Bob Dickerman WA1QKT, Carter MacDonald WA1TVS, John Berrigan KB1NOH, Sue Urquhart KB1EZO, Al Woodhull N1AW, Chris Myers KB1NEK, Howard Field N1LUP, Roy Morgan K1LKY, and myself.

We were setup inside the church with the coax out the window to a 2m J-pole antenna held up by my Honda Civic. We miss Bill N1EWK as our sag wagon guy. He did a fantastic job over the years and made life easy for the rest of us. We are glad he is still active in our club, however.

Thanks to everyone for making it a great day.

### **WORK AT THE STORAGE LOCKER SHARED WITH CERT/MRC/DART – AL WOODHULL N1AW**

On Monday October 28<sup>th</sup>, Chris KB1NEK, Ron K8HSF, Howard N1LUP, Carter WA1TVS, and Al N1AW met at CERT/MRC/DART storage locker at Casey Storage to build a shelf for FCARC equipment today. We achieved our goal, we have a sturdy 6' x 2' 3-shelf unit right inside the door.

Later in the day Chris moved the club's generator and parts of the canopy we use as a net control shelter for public service events and a box of technician's license student manuals into the unit. Still later Al moved the spare 2-meter duplexer from my garage to the unit, with help from Ron getting it out of my truck and into the unit.

On Tuesday Chris made several trips to the storage locker, bringing three power supply units, the rolling tool box, the briefcase with two VHF radios, the PVC stand and banner, the basket of vests, 100 ft. of good coax left by Bert Phillips, and the Kenwood TS-850.



Barbara Francis, N1AW XYL and the new FCARC storage shelves



Ron K8HSF outside. looking in

### **THIS IS CONTEST SEASON – AL WOODHULL N1AW**

Get into a contest. You don't need to have a super-station or the endurance to stay up all night, you may find its fun if you can put a half hour into one of these contests coming up during November and December:

- ARRL Sweepstakes Contest, CW 2100Z, Nov 2 to 0300Z, Nov 4
- ARRL Sweepstakes Contest, SSB 2100Z, Nov 16 to 0300Z, Nov 18
- CQ Worldwide DX Contest, CW 0000Z, Nov 23 to 2400Z, Nov 24
- ARRL 160-Meter Contest 2200Z, Dec 6 to 1600Z, Dec 8
- ARRL 10-Meter Contest 0000Z, Dec 14 to 2400Z, Dec 15
- ARRL Rookie Roundup, CW 1800Z-2359Z, Dec 22



## **CONTESTING: WHY AND HOW FOR THE BEGINNER– AL WOODHULL N1AW**

More than anything else, a radio contest gives you an opportunity to learn what your station can do. In a few hours of operation you can confirm the possibility of communicating with dozens or even hundreds of different stations. You can get an idea of whether your antenna works better in some directions than others. And by listening to the results as other stations call or work the same stations you are calling you can compare the effectiveness of your station with others. How is this different from non-contest days? Contest contacts are brief, you will make many contacts, and other stations will want to contact you, even if your signal is hard to hear or your code speed is slow.

You will also learn some things about the fascinating peculiarities of radio wave propagation. If you start listening on the 10, 15, or 20 meter band you are likely to find that on the highest band where you can hear anybody you may hear very few stations, but many of them will be far away and they may hear you easily, even though you cannot hear other stations they contact who may be much closer to your location. If you hear activity on 10 meters or 15 meters during the afternoon the signals will probably disappear after sunset, but signals on the next lowest band will persist until later. If you operate late at night you may make contacts over surprisingly long distances on the lower bands, 40, 80, even 160 meters. Around sunrise or sunset you may find strong signals coming from the north or south, from stations in the "grey line" zone where the sun is also rising or setting. You may observe these phenomena any day, not just during a contest, but a contest often brings a "dead" band to life -- for instance, "everyone knows" that the 10 meter band is useless when the 11 year sunspot cycle is at its low point, but on a contest weekend serious multi-multi stations (multi-operator, multi-transmitter efforts) will keep on calling CQ even on a "dead" band, and if there is any possibility of the band opening you will hear signals coming through.

The ARRL Sweepstakes contests (CW the first full weekend of November and phone the third full weekend of November) are excellent opportunities to get into contesting. There will be many participants, not all of them hot-shot serious competitors, and many modest stations with simple antennas and relatively low power will be as eager to contact you as you may be to contact them. On CW, especially, you can probably count on working almost every station you can hear if you have an average installation; as a rough rule you can generally consider a 10 watt CW signal to be as effective as a 100 watt voice signal.

For an easy start, write down and rehearse a few times exactly what you will send as your contest exchange. The fastest senders tend to concentrate at the lowest frequencies in the band, and that is where the band is most crowded. So listen for slow speed signals on the highest frequency where you hear activity in the band. Then listen to several contacts by a station calling CQ before you call him. That way you will know ahead of time what he will be sending when he comes back to your call. Timing is important, send your call as soon as you hear the other station end his transmission. Send just your call and don't try to send it fast -- the other station will slow down to your speed. If you don't catch all the information don't hesitate to send "PSE RPT QRS" ("please repeat and send more slowly").

Once you have made a few contacts you will begin to feel more confident, and if you put in a couple of hours you may find your code speed improves significantly. If you take some time off and get on the air again later you will find new stations you haven't heard before, and they will want to add you to their logs as well. Also, you may find yourself quite popular if you have been off for a long period and then return to operate during the last hour of a contest. Even if calling CQ did not produce many replies early in the contest it may work well for you near the end, when many stations are looking for stations they haven't already worked.

During the phone weekend you'll also find your operating ability will improve -- even though Morse code is not an issue on phone, there is skill involved in phone operation, and you will feel more confidence in your timing and the operation of your radio after a stint of contest operation. One of the nice things about the Sweepstakes contest is that operators keep track of their operating time and submit it with their logs. The contest rules allow up to 24 hours of operation during the 30 hour contest period, but since the results posted on the ARRL web page will include the number of hours operated, you can compare how you did with other stations who only operated for a few hours. The ARRL contest results site gives you many ways of selecting and sorting data - you can opt to sort on the hours of operation field and see how your score compares with others who put in the same kind of effort you did.

The announcement of the November 2013 sweepstakes is on page 91 of October QST. Announcements of the 2013 ARRL 160 meter and 10 meter contest are on page 89 of November QST. There is much additional information on the ARRL website; for Sweepstakes start at <http://www.arrl.org/sweepstakes>.

If you are not planning a many-hours operation you can easily do all your logging on paper, you don't need to have a computer logging program. Although major contests encourage using a logging program and submitting your log electronically, paper logs are probably advisable if you don't already have experience using a computer-based logging system. For the 2013 Sweepstakes, both CW and Phone, logging forms are available on the FCARC website in the ~/Files/Contests folder. A dupe sheet form for keeping track of stations already worked is also available there. The dupe sheet is not required unless you will submit a log showing more than 500 contacts, but it is a worthwhile aid to avoid making a duplicate contact with a station you already worked. Paper logs are always accepted (see the rules) or you can convert your log to an electronic Cabrillo-format using the web application at <http://www.b4h.net/cabforms>.

After the contest, consider submitting your log even if you only operated for a short time and made only a few contacts. You may not be competitive with the "big guns" but you can see how you did compared to other stations like your own. In several recent ARRL CW Sweepstakes contests N1AW was the only operator in the Western Massachusetts ARRL section who submitted a log in the QRP class and he received certificates for first place in the section and class. The contest results posted on the ARRL web page show that almost one sixth of the logs submitted were for operations of four hours or less in the 2012 CW SS.

### **AMATEUR RADIO IS AN APPLICATION MASH-UP - CHARLIE RISTORCELLI, NN3V, REPRINTED FROM THE ARES E-LETTER FOR OCTOBER 16, 2013**

During presentations on Amateur Radio contributions to emergency and disaster response, invariably questions arise from non-hams trying to understand how it is that Amateur Radio is such an effective and reliable communication system, available to the public at no cost, but is also an avocation. Hams invariably respond by emphasizing Amateur Radio's use of modern technology, the dedication of individual hams to their public service role, that hams bring their own equipment to the service, the non-pecuniary nature of ham radio, et cetera. Yet the public remains puzzled. Except for the non-pecuniary aspect, those answers also apply to the commercial systems. And the public seldom understands the cost savings anyway. I offer the following as a better approach for explaining Amateur Radio value in emergency and disaster response radio communications services. In today's Internet-savvy culture, Amateur Radio's distinguishing characteristic for emergency service communications is that it is an "Application Mash-up." It is a primary reason that Facebook, eBay, et cetera are so successful. Let's examine three principal characteristics of Amateur Radio under this moniker. Operating time. Individual hams operate frequently. Thousands of hams practice their skills and ensure their equipment is fully operational every day of the week, not just during some pre-scheduled emergency communication test.

Operating Interests. Hams have diverse interests and a variety of talents. Some try to operate independently of the commercial power grid. Others operate at very low power, gaining practice in techniques to overcome adverse conditions. Some only use home-brewed antennas, learning exceptional antenna construction skills. Many operate nets where they control traffic flow, and routinely switch frequencies to overcome poor conditions. These and innumerable other examples develop thousands of special skills that contribute to instant value added to Amateur Radio and hence the public, over other systems.

Self-sufficiency. The skills hams acquire in all of the above allow overcoming the most adverse of conditions. Hams have no expectation that their "IT Department" will come and fix their computer, or that an electrician will restore their power sources, or some other repairman will arrive to fix failed equipment. Hams do it all themselves. The ham operating in an emergency situation is self-sufficient.

The web-centric definition of "Application Mash-up" is: "An application that combines data and/or functionality from more than one source." When an emergency occurs, what do hams do? They bring astonishing diversity of talents and assets to the table, in terms of capabilities, as the commercial infrastructure fails due to a number of factors. This is a human and equipment resource treasure that cannot be duplicated by any amount of money from any government or private resource. It is the essence of how Amateur Radio is the emergency communication service that never fails.

So when someone asks why Amateur Radio When All Else Fails? The answer is simple: "Because Amateur Radio is an Application Mash-up."

#### **LICENSE CLASSES AT HOLYOKE HOSPITAL IN JANUARY**

The Hampden County Radio Association will hold Technician license classes and General and Extra Class license study groups in January at the Holyoke Hospital. This will be intense - two Monday evening sessions, and a 6 hour Saturday session followed immediately by a VE exam session. For details look on page 7 of the HCRA's Zero Beat newsletter for November, available on-line at <http://www.hcra.org/zb/nov13.pdf>.

#### **DX ALERT! SUNSPOTS INCREASING**

This could be a good time to look for DX on 15 or 10 meters, maybe even 6 meters. In the ARRL's weekly Propagation Forecast Bulletin issued today, Tad Cook, K7RA says: Solar activity is increasing, suggesting that perhaps now in Fall 2013 we are in the midst of a second peak in Cycle 24. We hope it sustains.

Sunspot numbers this week ran up all the way to 228, a level not seen in the past decade since October 27 through November 1, 2003 when the daily sunspot numbers were 238, 230, 330, 293, 266 and 277. The complete bulletin is available online at <http://www.arrl.org/news/the-k7ra-solar-update-292>. ARRL members can also receive propagation bulletins by e-mail upon request.

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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](mailto:w1srb@arrl.net).