



The SPARC

Amateur Radio - Communicating Worldwide for A Century
Newsletter of the Boston Amateur Radio Club
Serving Hams in the Greater Boston Area

June 2017 - VOLUME 29, NUMBER 6
www.barc.org - w1bos@arrl.net



Message from the President – Joe Harris, N1QD



It's June, and that means one thing to hams across the US and Canada: Field Day!! Is it a contest? Is it a drill? Is it a social gathering? Is it an excuse to play radio outside? Field Day is a little bit of everything, with something for everyone. You can get a taste of HF, learn about antennas, meet those voices you hear on the Monday night net, maybe even see a QSO via satellite!

Field Day is BARC's biggest event of the year, and I hope to see many of you on June 24 and 25! We return to the Bare Cove Fire Museum for the ninth year, where the plan is to run a 3A setup. That's three simultaneous HF transmitters on the air at the same time, with an additional VHF station available (hopefully six opens!).

We'd like to know if you're coming! In order to get an estimated head count, mainly to figure out how much food we need to buy, please let us know you're coming by signing up at this [Google form](#).

So, what part of Field Day are you excited for? Making your first HF QSO (or maybe your 10000th)? Seeing those friends you only see in person a few times a year? Put it in the comments on the [signup form](#).

(Personally, I want to see how late the rate holds up on 40 meters CW on Saturday night!)

Joe Harris, N1QD

BARC General Meeting Thursday, June 15, 2017 at 7:30 pm

The next BARC General Meeting will be on Thursday, June 15, 2017, at 7:30 p.m. at Brookline Police Headquarters in Brookline. Directions to this location can be found elsewhere in this issue. Club elections will be held, and we will discuss plans for Field Day.

BARC Field Day Saturday, June 24, and Sunday, June 25, 2017

The next BARC Event will be Field Day at the Bare Cove Fire Museum in Hingham the weekend of June 24–25, 2017. More details can be found elsewhere in this issue of *The SPARC*.

BARC's Online Discussion Group – Joe Harris, N1QD



BARC has an online forum at Yahoo groups. The Yahoo group serves as a sounding board for members to post their suggestions and comments, and is intended to foster discussion. The group can also be used to share photographs from club events! Come visit us at: <http://groups.yahoo.com/bostonARC>.

June General Meeting, Thursday, June 15 – Joe Harris, N1QD

The June General Meeting will be held on Thursday, June 15, at 7:30 pm in the Community Room at Brookline Police Headquarters. The club will hold their annual elections and we will continue our Field Day planning. Brookline Police is located at 350 Washington St, Brookline.

Minutes of the June 1, 2017 Business Meeting – Joe Chapman, NV1W

BARC held its quarterly Business Meeting on June 1, 2017, at Brookline Police headquarters in Brookline. Members present: KB1EKN, KB1ISG, KO4W, N1ICN, N1QD, NV1W, W1JF. The meeting was called to order by President Joe Harris, N1QD, at 7:36 p.m.

Officer reports:

- Joe Harris, N1QD (President): We have been offered a free table at Boxboro this year. The consensus was that we would not be able to staff the table adequately.
- Mark Duff, KB1EKN (Vice President): Mark talked with Harry, WA1GXC, last month's General meeting speaker. Harry indicated that he'd enjoy coming back to give another talk.
- Jim Clogher, N1ICN (Treasurer): The checking account has \$2347.89 and the repeater fund \$1850.81. We have paid the annual insurance bill and the IRS form 990 has been filed.
- Joe Chapman, NV1W (Secretary): *The SPARC* tends to be brief during the summer, and articles are welcome.

Repeater committee: there is not much news concerning the VHF and UHF DMR machines. The VHF repeater continues to operate with split PL tones, 88.5 Hz on the input and 100.0 Hz on the output. Mark, KB1EKN, noted that there is a regular checkin to the daily NTS net from south Plymouth, a distance of over 40 miles. The possibility of adding a circulator to the VHF machine was discussed. Mark also reported that according to Bill, NE1B, there are three common problems with a repeater such as ours: feedback through the repeater, a bad connection, or a nearby bad mechanical connection.

Public service: the BAA 10K is coming up on June 25, the Sunday of Field Day, and Brett Smith, AB1RL, is still in need of volunteers.

Member services: no report.

Difficulties with the alternate meeting location in Jamaica Plain were discussed, and it was suggested that instead of using the JP location we move the winter meetings with conflicts in Brookline to Wednesdays. The matter was tabled until the September meeting.

Field Day: Once again this year Bill Collins, W1PL, and a few members of the Harvard Wireless Association will be joining us. Chuck Counselman, W1HIS, has volunteered to do an RF noise site survey at the Fire Museum. Mark, KB1EKN, ran the club generator for an hour as a test. He also mentioned that we will try to put the beam antenna up 20 feet or even more. Antenna alternatives were discussed but we will continue with our current plan.

Website: Joe, N1QD, and Noe, NV1W, have been working on a beta version of a new website for the club and demoed what we have so far.

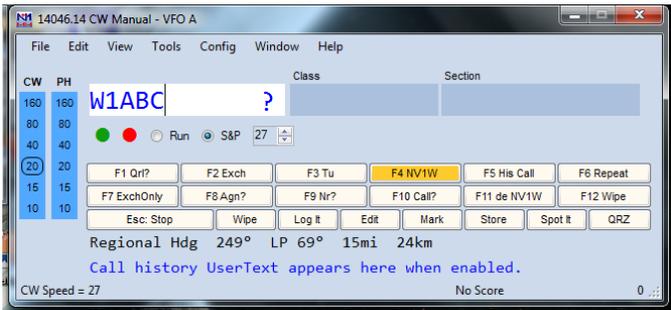
The meeting was adjourned at 8:42 p.m.

Respectfully submitted, Joe Chapman, NV1W, Secretary

N1MM+ Logger Basics – Joe Chapman, NV1W

BARC uses N1MM+, a popular contest logging program, for logging on Field Day. We use it to maintain the logs we send to the ARRL as well as to detect “dupes” (attempts to work a station a second time on a particular band and mode) when operating. While N1MM+ is a complex and full-featured program, and it can look intimidating at first, it doesn’t take too long to learn the basics, and if you’re willing to go just a little further you’ll discover some very useful features.

All the laptops at Field Day will be networked, so the first thing you have to do when you take over as operator of a given transceiver is to hit Control-O and enter your call sign. (Most laptops will have a label that says “CTRL-O!” to remind you to do this.) N1MM+ has a bunch of different special-purpose windows for displaying statistics, recently-logged stations, and the like, but your main focus will be the entry window shown below.

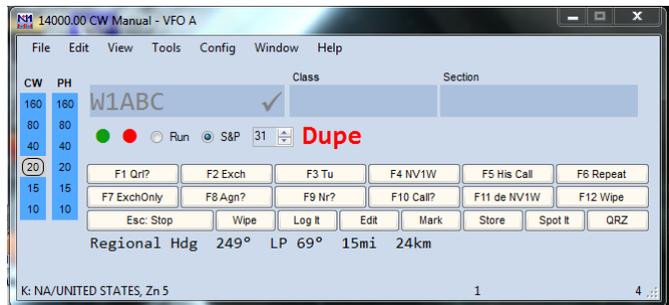


As you make contacts, you’ll enter information into the data entry textboxes at the top of the window. The leftmost one is for the other station’s call sign. The next two are for the other station’s “exchange”, the information that’s exchanged as part of a valid Field Day contact. This consists of the number of transceivers, a single letter representing the class of the station, and the ARRL section abbreviation. The sent exchange for W1BOS will be either “3A EMA” or “4A EMA”, i.e., three or four

transmitters, a club station running on emergency power, and Eastern Massachusetts. The sent exchange will be set up in N1MM+ so you don’t have to worry about it, but you do have to be prepared to speak it over the mic!

If you’re new to all this, you’ll start off doing search and pounce (S&P). This is where you tune around looking for stations calling CQ whom you will answer. This is opposed to “running” in which you call CQ and people come back to you. The small buttons underneath the textboxes don’t really come into play unless you have messages set up, but I still make sure it’s set to S&P. Finally, under that, there are a bunch of command buttons, some set to function keys. The pertinent ones are “Wipe”, which clears the current entry, and “Log It”, which logs the current entry.

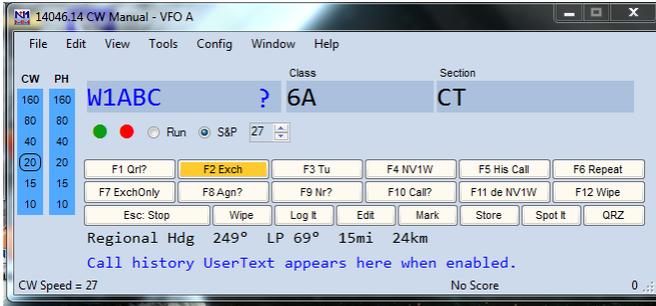
So, you’re spinning the dial and come across W1ABC calling CQ. Type “w1abc” into the callsign box (it will be uppcased for you). If it’s a dupe, N1MM will say “Dupe” and you should keep tuning. Otherwise, answer W1ABC on the radio. They’ll come back, “W1BOS 6A CT” or something like that.



You can either click in the “Class” textbox or hit Space and then type in their class, “6a” (again, it will be converted to uppcase). Then click the “Section” textbox or hit Space and enter their section, “ct”. At this point it’s good to send your part of the exchange: “3A EMA”. Finally, log the contact by clicking the “Log it” or hitting Enter.

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If there's a pileup and you aren't getting through, just turn the tuning dial. This will mark the frequency in the bandmap, one of the other windows, and you can go back to it later. One final good thing to know is Control-Q ("Quick edit"), which lets you edit the last contact you just logged.



That's about all you absolutely have to know to log on Field Day. Almost everything can be done by clicking the mouse, though you'll probably come to use Space (to move to the next textbox) and Enter (to log the contact) once you get used to things. The only keyboard shortcuts you need to know are Control-O (enter your call sign) and Control-Q (quick edit).

Among the more advanced features, the bandmap is worth getting to know better. Since I operate QRP at home I often end up with a lot of stations marked that I haven't been able to work yet. Control-Up/Down Arrow lets you jump up and down frequency to a station in the bandmap that you haven't yet worked. When you tune to one of these frequencies the saved call will appear above the callsign entry textbox, and you can just hit Space to enter it. There are also some rig control features that I find myself using a lot. For example, if you enter a frequency in the call sign entry window and hit Return, the rig will tune to that frequency, often much faster than spinning the dial.

A great introduction to more of the basics of N1MM+ can be found at <http://n1mm.hamdocs.com/tiki-index.php?page=Learning+Your+Way+Around&structure=N1MM+Logger+Documentation>. There are also some videos at <http://n1mm.hamdocs.com/tiki-index.php?page=Instructional+Videos>. For BARC Field Day you won't need to learn how to install N1MM+ or even set up for a new contest (Joe, N1QD, does that).

Field Day – Joe Chapman, NV1W

Field Day will be held at the Bare Cove Fire Museum, 45 Bare Cove Park Dr. in Hingham, on Saturday and Sunday, June 24–25, 2017. Parking is uncomplicated, and the museum is also a short walk away from the West Hingham Commuter Rail Station. If you are planning on attending, fill out the [signup form](#). You can come on either day or both days and stay overnight if you like.

Field Day has been an annual tradition in the U. S. and Canada for decades. The operating objective is to contact as many other Field Day stations as possible during the 24-hour period from 2:00 EDT Saturday to 2:00 EDT Sunday. Most clubs, like BARC, run a multi-operator station running under emergency power with temporary antennas.

Learning how to set up an effective temporary station in the field is part of the fun, so people are encouraged to show up around mid-morning Saturday to help set up and/or help tear things down on Sunday afternoon.

We usually send someone out for sandwiches for lunch on Saturday, and the club provides Saturday dinner and breakfast and lunch on Sunday.



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On HF, we'll be set up for 80, 40, 20, 15, and 10 meters (3.5, 7, 14, 21, and 28 MHz), though 10m is unlikely to be of much use at this point in the sunspot cycle and 15m may be marginal. We'll choose bands based on the time of day and propagation conditions. The usual modes will be either SSB (voice) or CW (Morse code), though we'll also use the digital modes RTTY and PSK31. The "exchange", the information exchanged to make a valid contact, consists of a station class and an ARRL section abbreviation. Our exchange will be 3A EMA (three transmitters, club station operating under emergency power, in eastern Massachusetts). Logging will be done with N1MM+; see the introduction above.

The club is happy to pair hams who are new to operating in a contest environment or who are attending their first Field Day with an experienced operator. Technician licensees can operate on HF if paired up with a General or Amateur Extra control operator, and there will be a six-meter station available.

If you are planning on staying overnight, bring a sleeping bag and whatever other supplies you would normally take for an overnight trip. It is useful to have a pair of headphones, along with whatever adapter(s) you need to fit both 3.5 mm and ¼ inch headphone jacks. You may bring an HT if you like, though non-satellite repeater contacts don't count on Field Day and the location is not at an effective elevation for VHF or UHF simplex.

Elections – Joe Chapman, NV1W

The Nominating Committee, chaired by and consisting of Linda Blair, NA1I, has put forward the following nominees for BARC officers in 2017–2018:

- President: Joe Harris, N1QD
- Vice President: Mark Duff, KB1EKN
- Treasurer: Jim Clogher, N1ICN
- Secretary: Joe Chapman, NV1W

Officers Day will be elected at the June 15 meeting. Nominations will be accepted from the floor.

BARC Meeting Calendar for 2017

Unless otherwise noted, all meetings will take place at the Brookline Police Headquarters.

General Meetings

June 15	2017	Thu	7:30 pm	— Elections
September 21	2017	Thu	7:30 pm	
October 19	2017	Thu	7:30 pm	
November 16	2017	Thu	7:30 pm	

Business Meetings

September 7	2017	Thu	7:30 pm	
December 7	2017	Thu	7:30 pm	

VE Sessions

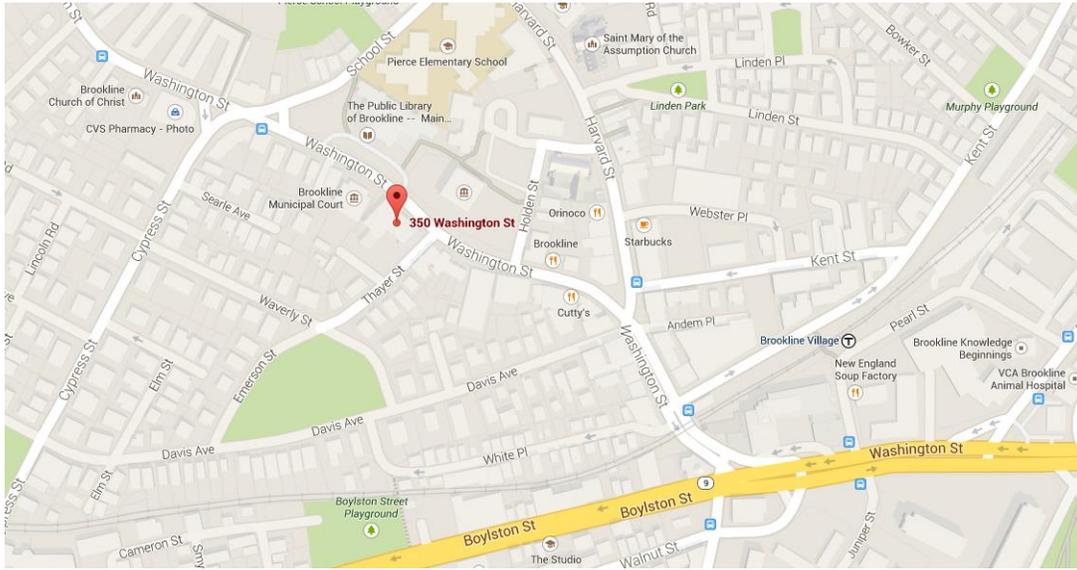
July 10	2017	Mon	7:30 pm	
October 9	2017	Mon	7:30 pm	

145.230 (-) CTCSS 88.5

Simplex: 147.420

449.175 (-) DMR CC1

Area Map for Brookline Police Headquarters, 350 Washington St., Brookline



BARC Net Preamble

The control operator for the BARC Net is Joe, W1JF. He rarely misses a net, but when he does any ham can take up the position and run the net. To assist you in opening and closing the net The BARC Net Preamble is printed below. Do not be afraid to step up and take the challenge.

Is there any further business for the repeater before we begin the Boston Amateur Radio Club Net? This is «YOUR CALL». Calling the Boston Amateur Radio Club Net. This is «YOUR CALL», my name is «YOUR NAME» and I am located in «YOUR TOWN». This net meets each Monday evening at 9 pm Eastern Time on the 145.230 Boston repeater, PL 88.5. This net is an informal round table discussion concerning matters of interest to the members of the Boston Amateur Radio Club and the Boston Amateur Radio community in general. When checking into the net, please say, “this is” and drop your carrier to check on doubling. Then give your call sign, name and location. All amateurs are welcome to join the net. Any check-in’s for the Boston Amateur Radio Club Net please call now.

[Compile the list of the check-in’s and proceed with the net.]

Is there any further business for the net before I close? Hearing nothing, this is «YOUR CALL» closing tonight’s session of the Boston Amateur Radio Club Net. I would like to thank everyone who participated in the net and those who stood by while I ran the net. The Boston Amateur Radio Club Net will return next Monday evening at 9 pm Eastern Time. This is «YOUR CALL» returning the repeater to general amateur use. 73.



I See the Future

10–12 June	ARRL June VHF Contest
15 June	BARC General Meeting, Brookline Police Headquarters, Brookline, 7:30 pm — Elections
145.230 (-) CTCSS 88.5	Simplex: 147.420 449.175 (-) DMR CC1

18 June	ARRL Kids Day
18 June	Flea at MIT, Cambridge
24–25 June	Field Day, Bare Cove Fire Museum, Hingham
25 June	BAA 10K (Rp)
1–7 July	13 Colonies Special Event
8–9 July	IARU HF World Championship
10 July	BARC VE Session, Brookline Police Headquarters, Brookline, 7:30 pm
15–16 July	North American QSO Party, RTTY
16 July	Flea at MIT, Cambridge

▲ Note change from usual date and/or location

(Rp) = BARC Repeater likely to be used

As you might expect, there are many more events (public service, hamfests, flea markets, etc.) taking place—some only peripheral to ham radio. For information on these, covering much of the Northeast, the “Ham - Electronic Flea Market” and the “PSLIST” lists tell the story. Of course, if you know of an event that would be of interest to the readers, please let the Editor know.

See Yourself in Print! (well, PDF) – Joe Chapman, NV1W

We are always looking for articles for the newsletter. I have reserved this space for your articles, reviews, tips, how-tos, hints, kinks, photos, schematics, or other ham related information. Photos of you operating or your shack are especially welcome. Send your submissions to the Editor, Joe, NV1W, at nv1w@arrl.net. Articles for the July issue must be received by July 8.



**The Clay Center Observatory
Welcomes BARC members**

www.claycenter.org

Public Astronomy Nights, Astronomy Day Events,
Amateur Radio Classes, Amateur Radio Youth Club,
Community and Adult Education, Weather Festival,
Science Lecture Series, Educational Outreach

20 Newton St., Brookline, near Larz Anderson Park



Quarterly Business Meetings – Bob Salow, WA1IDA

As the Bylaws require, BARC has Business meetings quarterly. Unless circumstances warrant, BARC Business meetings will be held on the first Thursdays of December, March, June, and September. The next such meeting will be on **7 September 2017** at Brookline Police Headquarters in Brookline. All members are urged to attend and participate in club affairs. This is where club functions are discussed and decided, and your help is needed to guide us.

A short opening period of each General meeting will continue to be used to bring any immediate business matters to everyone’s attention.

To provide continuity of club business between meetings we also have a virtual business meeting via an email list. Any member interested in the affairs of the club can ask to be on this virtual meeting list—just give your name, call and your email address to President Joe Harris, N1QD.

Businesses Can Advertise Here

The SPARC accepts commercial advertisements. BARC encourages monthly promotion of your products and services which would be of interest to hundreds of our members and others interested in the Amateur Radio Service.

The rates for display advertising are:

1 col × 2 in. (business card)	\$15 per issue
1 col × 2 in. (business card)	\$75 per 6 consecutive months
1 col × 2 in. (business card)	\$125 per 12 consecutive months
1 col × 4 in. (½ column)	\$30 per issue
1 col × 9.5 in. (full column)	\$60 per issue

Originals of ads must be presented to the Editor in MS Word or .jpg format to print 1:1. Other composition will be at extra cost. We will be glad to quote other ad sizes and durations. Members are urged to seek prospective advertisers who are appropriate to our readers. For additional information, contact Joe Chapman, NV1W, at 617.267.6349 or nv1w@arrl.net.

BARC Volunteer Exam Sessions

The Boston Amateur Radio Club schedule has been revised to suit the needs and interests of the applicants and examiners. **The next exam session will be on July 10, 2017.** Generally, sessions are held at Brookline Police Headquarters, 350 Washington St. in the Community Room (across from the information desk).

We give all exams (Technician, General, and Extra). *Testing is by reservation only.* Please bring the following with you:

- Your current license and a photocopy for the ARRL, if you are upgrading
- Any CSEs you are claiming, and a photocopy of them
- Valid picture ID or two valid non-picture IDs
- A pen and a calculator (if you want to)
- **\$15.00** (good for all the tests you take at that session, except for retests)

Note: Written tests can be taken sequentially at the same session for the same \$15 fee. The needed FCC forms will be provided.

To reserve a seat or for further information, contact: Jim Clogher, N1ICN, n1icn@arrl.net, or Linda Blair, NA1I, na1i@arrl.net.

Your Personal Ad Could Have Been Here

Are you a depressed BARC member because you have a treasure you must turn to cash? Cheer up, Bunky! The SPARC will run your (non-business) ad for free. Of course, a 10% donation if you sell it will be cheerfully accepted. Just send your ad to Joe Chapman, NV1W, nv1w@arrl.net.



145.230 (-) CTCSS 88.5

Simplex: 147.420

449.175 (-) DMR CC1

BARC Officers and Staff

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Treasurer: Jim Clogher, N1ICN,
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Newsletter Editor: Joe Chapman, NV1W
617.267.6349; nv1w@arrl.net

The Boston Amateur Radio Club is a non-commercial association of persons interested in the Amateur Radio Service. The Club is organized for the promotion of interest in Amateur Radio communication and education, for the establishment of emergency communications in the event of disasters or other emergencies, for the advancement of the radio art and the public welfare, for the representation of the radio amateur in legislative and regulatory matters, and for the maintenance of collegiality and a high standard of conduct.

The Club is open to all persons interested in Amateur Radio without regard to race, color, religion, creed, national origin, gender, disability, or sexual preference. Our General and Business meeting locations are handicap accessible. Other meeting and activity locations may be handicap accessible by arrangement.

The Club is an ARRL-affiliated club, and is a member of the Council of Eastern Massachusetts Amateur Radio Clubs (CEMARC) and the New England Spectrum Management Council (NESMC). The Club is also an associate member of the Courage HandiHams system.

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Greater Boston Net Directory

Daily 7 pm	MARI (Mass/Rhode Island CW Net) (NTS)	3.565
Daily 8 pm	Eastern Mass 2M Traffic Net (NTS)	145.230 (PL 88.5)
Daily 8 pm	Slow Speed CW Net	28.160
First Mon 8:30 pm	EMA Section ARES Net	146.610 and all MMRA links
Mon 8 pm	New England DMR Net	DMR New England Talk Group (TG 3181)
Mon 9 pm	BARC Club Net	145.230 (PL 88.5)
Sun Mon Wed Fri 10 pm	Heavy Hitters Traffic Net (NTS)	MMRA-linked repeaters: 146.610, 146.670, 146.715, 146.820, and all 222 and 440 repeaters
Tue 8 pm	MMRA Club Net	146.610 and all MMRA links
Wed 8 pm	Wellesley Amateur Radio Society Net	147.030; 444.600 (PL 88.5)
Wed 9 pm	Waltham Wranglers Swap Net	146.640 (PL 136.5)
Sat 9 am	Northeast SATERN Net	7.265
Sun 9:30 am	Yankee SSB Net	50.275
Sun 8 pm	Algonquin Amateur Radio Club Net	446.675 (PL 88.5)
Sun 8:30 pm	NSRA Net (with Newsline)	145.470 (PL 136.5)
Sun 9 pm	CAARAnet	145.130 (PL 107.2)

145.230 (-) CTCSS 88.5

Simplex: 147.420

449.175 (-) DMR CC1