



The SPARC

Amateur Radio - Communicating Worldwide for A Century

Newsletter of the Boston Amateur Radio Club

Serving Hams in the Greater Boston Area

October 2016 - VOLUME 28, NUMBER 10

www.barc.org - w1bos@arrl.net



Message from the President – Joe Harris, N1QD



I received word from Bill, NE1B, about a New England DMR net that has started up within the last month or so. Conveniently, it's right before the BARC Net! Tune in Mondays at 8pm on the New England Talk Group.

So, that brings it up to three weekly nets available on the DMR repeater:

1. *Worldwide DMR Net: Saturdays at 12 noon on the Worldwide Talk Group (TG 1). This net is organized by DMR-MARC. It's primarily a check-in net with announcements.*
2. *TAC310 Net: Sundays at 8pm on the TAC-310 Talk Group (TG 310). This net is a mixture of check-ins and technical discussion with a weekly theme.*
3. *New England DMR Net: Mondays at 8pm on the New England Talk group (TG 3181). This net has check-ins by state, with some announcements and round-table discussion as well.*

With a variety of nets available, there's something in there for everyone. I hope to hear you on a DMR net!

Joe Harris, N1QD

In this Issue of *The SPARC*

- October General Meeting
- Review: Emtech ZM-2 ATU
- 2016 meeting and VE session dates



BARC General Meeting

Thursday, October 20, 2016 at 7:30 pm

The next General Meeting will be held on Thursday, October 20, at 7:30 pm in the Community Room at Brookline Police Headquarters. Our speaker will be Barry Baines, WD4ASW, the President of AMSAT. More details can be found later in this issue of *The SPARC*.

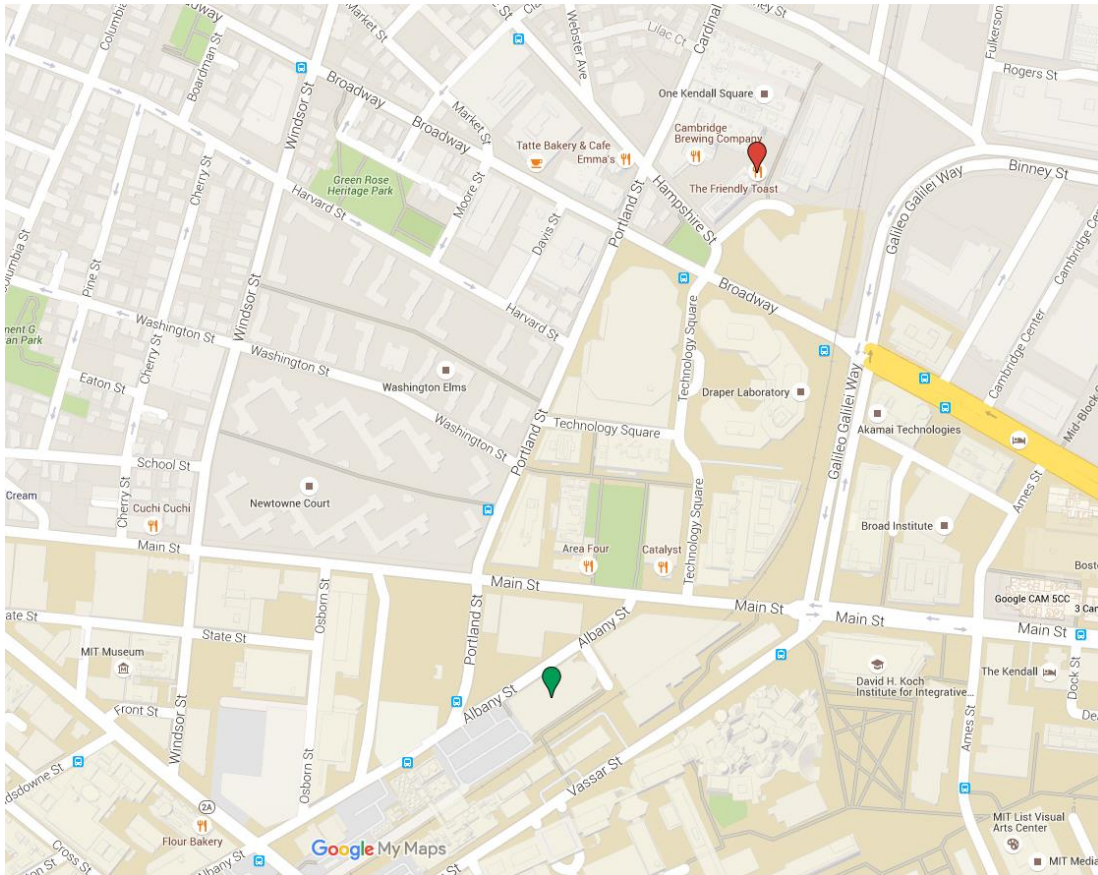
Repeaters: 145.230 (-) CTCSS 88.5

Simplex: 147.420

449.175 (-) DMR CC1

BARC Breakfast – Joe Harris, N1QD

BARC holds its monthly breakfast on the third Sunday of the month, coinciding with the MIT Flea Market. We descend upon The Friendly Toast, located at 1 Kendall Square in Cambridge at 8AM sharp. This month's breakfast will be held on the 16th. 1 Kendall Square is a group of buildings bordered by Hampshire St., Binney St., and Cardinal Medeiros Ave. The restaurant is a short walk from the flea site, and there is plenty of on-street parking. See the area map for details.



Red pin is the Friendly Toast. Green Pin is the Albany Street Garage, home of the MIT Flea Market.

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: <https://groups.yahoo.com/neo/groups/bostonARC/info>.

From the Editor – Joe Chapman, NV1W

This month's issue of *The SPARC* will be somewhat abbreviated thanks to my having had medical issues over the past month (which I hope to be over soon). Please consider writing an article for an upcoming issue—members do want to hear what you've been doing on the air and what new toys you've spent your hard-earned nickels on.

BARC October General Meeting – Joe Harris, N1QD

Our guest speaker at the October General Meeting will be Barry Baines, WD4ASW. Barry is the president of AMSAT, the amateur satellite service. His talk will provide an AMSAT overview, some satellite basics, as well as a discussion of ARISS (Amateur Radio on the International Space Station). Please join us for an excellent program on Thursday October 20 at 7:30pm!

Note: Brookline has recently extended parking meter hours to 8pm in the area, so please plan accordingly.

Emtech ZM-2 ATU – Joe Chapman, NV1W



I recently lent my Emtech ZM-2 ATU to J. P., KB1TIC, for use on a trip he took in August, and was reminded that it's a fine piece of equipment worthy of a quick review.

I have several random QRP rigs lying around, including the Altoids tin-sized Rockmite, various Software Defined Radio (SDR) peripherals, and the Ten-Tec Rebel I reviewed in these pages a few years ago. With the compromise antennas that I, as an urbanite, am generally forced to use, an antenna tuner is a must.

The Z-match is an unusual tuner design; you can read about it more in an article by Charles Lofgren, W6JJZ, in the *ARRL Antenna Compendium*, Vol. 5. Fans of the Z-match point out two great features in particular. It will match just about anything, including strange objects like gutters and swingsets. Also, for a manual tuner it's very quick and easy to operate, with only two knobs to turn. You turn one knob until you get maximum noise on receive, then transmit a carrier and adjust the second knob for minimum SWR.

The Emtech ZM-2 is inexpensive and available in both pre-built and kit forms. There are binding posts for wire antennas and your choice of BNC or UHF connectors for another antenna connection and the connection to your transceiver. There's also a built-in Tayloe SWR indicator, so the second tuning step just involves turning a knob until an LED goes out. The package is light, compact (5 1/16" × 2 5/8" × 1 5/8"), and reasonably rugged so it's great for backpacking. (Not as great as the stick of gum-sized internal ATU on the Elecraft KX1, but great nonetheless.)

The kit is easy to build and it went together in an evening. There are two toroids to wind, but they're easy. If toroids still scare you, you can buy the kit with pre-wound toroids but at that point you're getting close to the cost of the pre-built version.

Maximum power is 15 watts. You can find a design for a 100 watt Z-match by Phil Salas, AD5X, using the Google if (unlike me) you have use for such a beast.

ZM-2 Antenna Tuning Unit. Kit \$62.50 (+ \$15.00 for pre-wound toroids), Pre-built \$87.50. Emtech, PO Box 296, Tracyton, WA 98393, (360) 692-7750. <https://steadynet.com/emtech/>.

Minutes from the September, 2016 General Meeting – Joe Chapman, NV1W

The Boston Amateur Radio Club held a general meeting on Thursday, September 15 at 7:30 pm at Brookline Police Headquarters in Brookline. Voting members present: KB1EKN, KB1ISG, KB1QHX, KB1TIC, KC1AXR, KO4W, N1ICN, N1QD, NA1I, NV1W, W1PL. Guests: Adam, KC1GFG, and David, KC1GEW. A brief business portion of the meeting was called to order by President Joe Harris, N1QD, at 7:50 pm.

Officer reports:

- Joe, N1QD (President) reported that the topic of the October General Meeting will be AMSAT.
- Jim, N1ICN (Treasurer) reported that we have \$1100.59 in the savings account (repeater fund) and \$1695.24 in the checking account.
- Mark, KB1EKN (Vice President/Repeater committee) reported that the radio shop has the duplexer for the VHF repeater but has not done the work on it.

KB1EKN raised the possibility of holding a General Meeting on Saturday morning.

A discussion was held on the date for the holiday party. A motion to hold it in January, as early as possible, was made and passed. We will try for January 8, 2017, with the 15th as a fallback.

Call for Volunteer Examiners – *The BARC VE Team*

BARC could use some more Volunteer Examiners (VEs) for our exam sessions. Recently we had to scramble again to get the required three VEs for an exam session. If any unforeseen situation arises and a VE is not able to make a session we would be forced to cancel the test.

There are some BARC members who are qualified VEs that have not been participating in the testing. We urge these VEs to become active. If you can spare one night every couple of months please come to a session.

We can also surely use additional VEs. The test procedure for qualification is simple. Materials are available from the ARRL and the examination is an open book test. Hams with General and Amateur Extra class licenses are eligible to become VEs, though only Extras can administer tests for General and Amateur Extra licenses. If you would like to become a VE and help with testing please contact Linda, NA1I, or Jim, N1ICN.

BARC Meeting Calendar for 2016

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

General Meetings

October 20	2016	Thu	7:30 pm	<i>(Satellite operation and AMSAT)</i>
November 17	2016	Thu	7:30 pm	

Business Meetings

December 1	2016	Thu	7:30 pm	
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BARC Net Preamble

The control operator for the BARC Net is Joe, W1JJF. 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.

145.230 (-) CTCSS 88.5

Simplex: 147.420

449.175 (-) DMR CC1

[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

16 October	BARC Breakfast, The Friendly Toast, Cambridge, 8:00 am
20 October	BARC General Meeting, Brookline Police Headquarters, Brookline, 7:30 pm
29–30 October	CQ Worldwide DX Contest, SSB
5–7 November	ARRL November Sweepstakes, CW
17 November	BARC General Meeting, Brookline Police Headquarters, Brookline, 7:30 pm
19–21 November	ARRL November Sweepstakes, Phone
25–27 November	Plimoth Plantation Special Event, Plymouth
26–27 November	CQ Worldwide DX Contest, CW

▲ **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 November issue must be received by November 5.

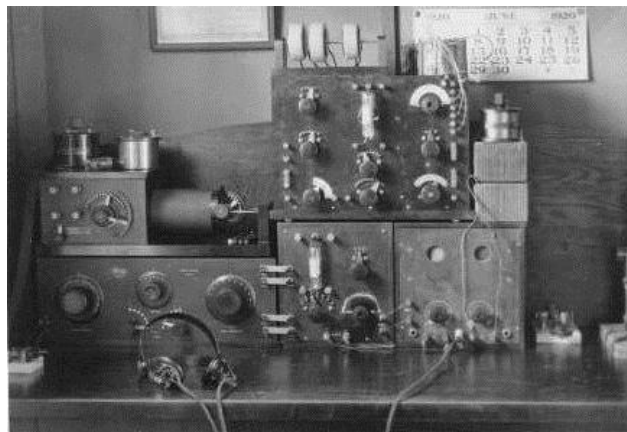


**The Clay Center Observatory
Welcomes BARC members**

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

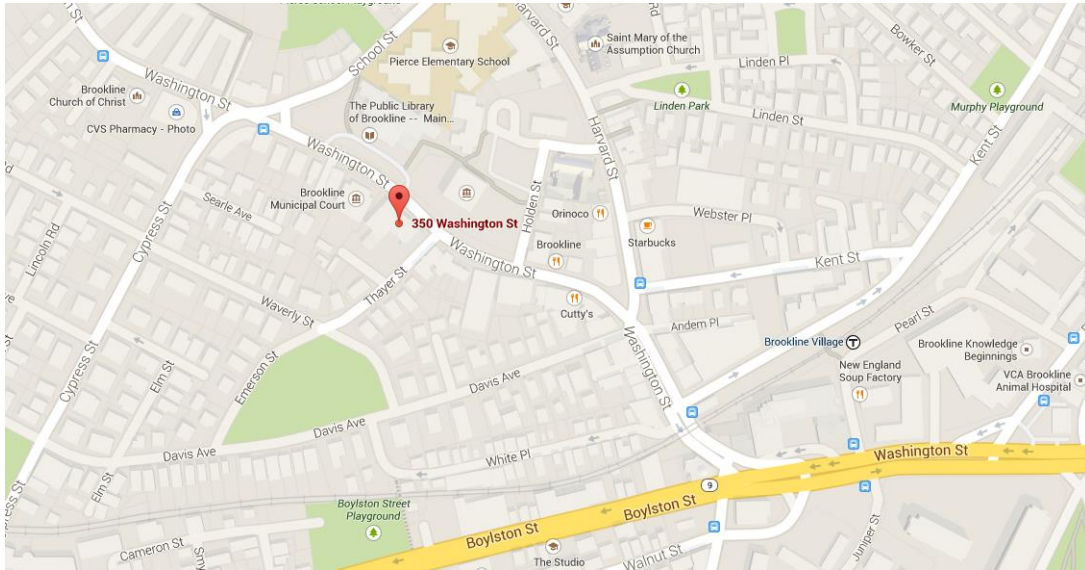


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Area Map for the Brookline Police Headquarters, 350 Washington Street, Brookline MA



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 x 2 in. (business card)	\$15 per issue
1 col x 2 in. (business card)	\$75 per 6 consecutive months
1 col x 2 in. (business card)	\$125 per 12 consecutive months
1 col x 4 in. (½ column)	\$30 per issue
1 col x 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@arri.net.

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 **1 December 2016** at Brookline Police Headquarters. 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.

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 in early 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.



BARC Officers and Staff

President: Joe Harris, N1QD

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Newsletter Editor: Joe Chapman, NV1W

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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 9 pm	BARC Club Net	145.230 (PL 88.5)
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)