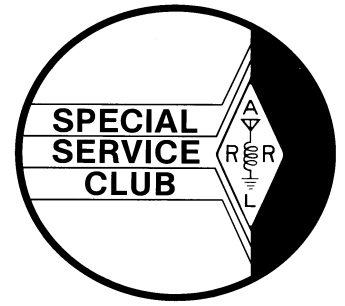




The SPARC

Volume XIV, Number 5; May 2002
Newsletter of the Boston Amateur Radio Club
<http://www.barc.org/barc>
w1bos@arrl.net



From the Office of the President

Several members of BARC, many other hams throughout New England and myself recently attended a one-day seminar hosted by the Salvation Army concerning Disaster Planning. The seminar was very well organized and informative. It stressed the importance of always being prepared. One of the breakout sections covered Canteen Operations, the Incident Command System and Ham Radio. Those in attendance learned much. The breakout section involving ham radio received much higher attendance than expected. A special thanks goes to the entire Salvation Army Organization for such a fine training program and inviting us to participate.

While on the subject of giving praise, a special "Well done" goes to Ed Burg/N1VJSJ and crew for the excellent service provided by hams during the "Run of the Charles". The weather was very hostile and yet no one complained. The event was a fine example of ham support at its best, with weather at its worst.

Work continues on the club display, which we hope to have ready for public viewing, possibly as soon as the next general meeting. If you have any material suitable for display such as photographs or posters, please contact me so it can be included in the display unit.

On June 3rd, the annual M.E.M.A. Area II Hurricane/R.A.C.E.S. Training Exercise will take place beginning at 19:00 hrs. As part of my professional responsibilities, I will be involved. If you are interested in participating, please contact me directly.

The Speaker for the General Meeting will be Mike Ardai/N1IST. He will speak on Field Day. Mike, is this year's Field Day Chairman, and will give an overview of the history of the event and it's importance to ham radio. Following his presentation, a Field Day Planning meeting will take place. More help is needed this year if we are to have a successful field day. Although the event is great fun, it involves a lot of hard work! We need more people to step forward and get involved. The event cannot and will not take place of only three or four people volunteer their services to do the majority of what's required.

The nominating committee will be making its report at the General Meeting. It is important that we all support the new slate of officers who will be elected in June.

By order of the President
Mark J. Duff/KB1EKN

Notice of Special Meeting

Date: June 6th, 2002
Location: Parlin Memorial Library, Everett, MA
Purpose: Consideration of by-law Changes

A special meeting will be held during the monthly business at the Parlin Memorial Library to consider the following two changes to the By-laws. All members in good standing of the organization will be eligible to vote on these changes. No other changes to the by-laws will be considered or discussed at this special meeting.

Change # 1

Change from:

"A General Meeting shall be called monthly at a time and place as directed by the President".

Change to:

"A General Meeting will be called at least 10 months of each calendar year at a time and place as directed by the President".

Comment:

Most organizations including many Amateur Radio Clubs do not hold general meetings during the summer months. Eliminating the July and August meetings would give the officers of the organization as well as the membership a much-needed break. It would also make the process of obtaining guest speakers easier as not as many would be needed during the calendar year. An alternative to the holding the General meetings during the summer months would be hosting a club cookout or other type of family or social event.

Change # 2

Change from:

"Executive Committee Meeting"

Change to:

"Business Meeting"

Comment:

Change # 2 is a wording change to better describe to type of meeting the club has each month. Each month the club holds what is called "A Business Meeting" to conduct the business of the club. This change would bring the by-laws in line with what actually takes place.

By order of the President
Mark J. Duff/KB1EKN

Nominating Committee Formed Club Officers Needed

BARC will elect our club officers, President, Vice President, Secretary and Treasurer, at the June 2001 meeting. This year's nominations committee is Dick Doherty KA1TUZ, Hank Buccigross K1QK, and Paul Katz N1LRT. All nominations for all club officers can be given to him, either at meetings or via email, and members can nominate themselves.

Walk For Multiple Sclerosis - A Good Job

Bob Salow WA1IDA

The date was moved a few weeks to take advantage of better weather than the usual early April date for this event. It didn't work. Standing on the Esplanade in Boston in the fourth week of April, it was c-c-c-cold. However, we hams are resourceful, so on Sunday, 21 April, we dressed properly and met the occasion - as we have for many years.

Hams were posted at all checkpoints, at the hazardous and confusing locations, and with key sponsor staff members. We established a local net on simplex and a course net using the 2m repeater. Fortunately, there were no emergency calls.

As in recent years, this Walk also served to provide experience for some hams to participate in other public service and emergency events. The Multiple Sclerosis Society Walk Director, Maura Ridge, praised our support extensively. Participating were:

Arthur	N1NHZ
Rowe	N1GIE
Hank	K1QK
Rick	NG1L
Eric	K1NUN
Bert	N1MXO
Mike	WB1GVB
Paul	N1LRT
Ethan	KB1GXW
Bill	KA1MOM
Rick	N1HID
Mark	K1MGY
Jeff	KB1HOL
Bob	WA1IDA
Pete	KD1QS
Kris	N1ZXN

You Say You Have Free Time?

Frank Murphy N1DHW

The Salvation Army Emergency Disaster Services (EDS) is looking for new members. They are seeking both drivers for the EDS trucks (canteens), and those who can respond to multiple alarm fires direct from home to assist the canteens at the fire/disaster scene. Hams are the perfect choice for this volunteer work. Not only are you there to refresh those hardworking

firemen, but also in times of disaster, you're available and trained to assist with radio communications.

Contact Bill Foley, kb1glf, EDS Coordinator, 617-338-4155 x513, or Frank Murphy, n1dhw@arrl.net for more info.

Why We Have 600 kHz Repeater Splits

By Eric Falkof, K1NUN

In the beginning of Ham FM radio involvement in the 1950s, the only equipment available was from manufacturers such as Bendix (yes, the brake people), Aerotron (yes, the same people who brought Gonset to Hams), Federal Signal (which made railroad equipment), and others such as Link, Carphone, and RCA. You might also have heard of Motorola and General Electric. The equipment was commercial and required conversion to Ham frequencies. Most radios were only wired for single-frequency operation. You might get a working radio for free, but two crystals were required for each frequency (transmit and receive) and they cost \$5 to \$15 each. By informal agreement, all two-meter rigs (that is, converted high band equipment) operated on 146.94 simplex. There were no repeaters at first. All communications was station to station. Rigs and antennas were optimized for that one frequency.

Eventually, repeaters were invented. Actually, they were put into use on Ham frequencies, just like they were for commercial users. Physics and experimentation showed that repeater receivers at sites where the transmitter and receiver were at the same location suffered less desensitization if the transmit and receive frequencies were far apart. Ham repeaters used various separations, but that meant a tuned antenna or tuned receiver front end had to be adjusted quite differently from the tuned antenna for a transmitter.

What to do to ensure peak performance? Practically, it was discovered that a split of 600 kHz was about as far apart as you could separate a transmitter and receiver in frequency to enable a single antenna tuning network to work well for both functions. Of course, the antenna would be tuned for a midpoint frequency, and that opened a bit more of the band for other repeater frequencies to be within tuning range.

But it wasn't always that way! The concept of 600 kHz splits was not intuitive. It required repeater owners be convinced they should conform to this radical idea. That is, repeater owners and operators had to be convinced they should spend money to buy more crystals and tune antennas just for conformity to a concept that meant nothing to them locally, especially when the repeater was coming in just fine, thank you.

Now, aside from the practicalities of allowing as many repeaters in the available frequency allocation, this was the tightest frequency split that would work. As repeaters' ranges extended, it became necessary for repeater users and owners to adopt a wider set of principles. (There were overlapping super-repeaters everywhere. You could use a walkie-talkie in downtown Boston and talk to Hams in Albany!) The big picture became more important than

local concerns and needs. A national norm was needed, developed, and adopted. That norm was 600 kHz.

A practical, local example of cooperation: In New England, we had three major repeaters, each of which gave fine coverage that overlapped in Boston and its northwestern suburbs. The Concord, NH repeater had an output on 146.94 and an input of 146.31: a 31-94 repeater. Waltham, MA repeater's output was 146.64, input 146.34: it was set on 34-64. (It had less than a 600 kHz split because its receiver and transmitter antennas were separate and far apart.) Mt. Greylock, in North Adams, MA output was 146.91, input 146.04: set for 04-91. As you see, none used 600 kHz splits. Each repeater trustee was reluctant to change because of their expense and the expense of their users to buy new crystals.

But reason prevailed. One fateful day around 1973, the repeaters realigned to 600 kHz splits. Users in each area voluntarily swapped crystals (some met in parking lots to make the exchanges) and few met with any expense. Concord gave its 31 input to Graylock: Graylock was now 31-91. Waltham gave its 34 input to Concord; Concord was now 34-94. Graylock gave its 04 input to Waltham: Waltham was now 04-64. Agreement and consistency!

Today, 600 kHz splits are the norm nationwide and that frequency split is pre-programmed in all our radios. Now you know why.

BARC Email List Moves

QTH.net, the people who provide the mailing list server that barc-list runs on, has upgraded their system to a new mailing list manager called Mailman. To post to barc-list, send a message to **barc-list@mailman.qth.net** from the address that you are subscribed from. Only subscribers can post to the list. This is to reduce spam.

You can subscribe, unsubscribe, or manage your qth.net subscriptions at <http://www.qth.net>. This change applies to all mailing lists previously on qth.net directly.

Orange Caps For Emergency And Public Service Events

BARC has a new supply of the bright orange caps for use at emergency or public service events. They are adjustable to fit all but the very largest heads, and proclaim, "Emergency Communications."

The price is \$5.00, and they are available at club meetings, or contact Dick, KA1TUZ or Bob, WA1IDA.

Hello AT&T Broadband

Are you among those who got changed from **mediaone.net** or **attbroadband.com** to **attbi.com**? Please let the BARC Keeper of the Database know your new email address. Just send an email

with your name and call to **walida@arrrl.net**. As you may have found out, you can no longer receive mail at **mediaone.net**.

You are not off the hook yet, however. As you may know, AT&T is in the process of selling its broadband business to Comcast. Standby for another change.

Insulate yourself. Since the vast majority of BARC members belong to ARRL, this probably pertains to you. We recommend that ARRL members sign up for the alias service. Your email address becomes **<callsign>@arrrl.net**. You tell the service your actual Internet Service Provider (ISP), and your email is forwarded. Your ISP can jump all around, but the address you give to your correspondents stays the same. If there are changes, you just make one notification to the alias server that you have a new ISP. Check it out at the ARRL (members) web site: **www.arrrl.net**.

BARC Monthly Breakfast

Every month, BARC has a social breakfast on the second Sunday of the month, which will be May 12 this month. We'll be meeting at the Old Country Buffet at the Watertown Mall at 8:30am.

They are *very* good, offering an extensive breakfast buffet, costing \$6.35 per person.

We just intend to get together, socialize and eat, without having any formal club events or business. Family and friends of club members are welcome also. If you are not a BARC member, you too are invited to meet with us and see what we're all about.

The Old Country Buffet is in the Watertown Mall, on Arsenal St. in Watertown. From Memorial Drive continue on Greenough Boulevard to the Watertown exit, and then turn right onto Arsenal St. There is plenty of mall parking. The #70 T bus from Central Square Cambridge to Watertown Square stops right at the Watertown Mall. Hope to see all of you there – and bring your appetite!

May General Meeting

This month's BARC General meeting is on Thursday, May 16 at 7p.m. This month's speaker will be Mike Ardai/N1IST, BARC's Field Day Chairman. He will discuss the purpose and history of Field Day, followed by a Field Day planning meeting.

BARC General meetings are held at the Boston Back Bay Salvation Army Building, corner of Berkeley St. and Columbus Ave. near Copley Square, in the second floor auditorium.

Parking is available; the entrance to the parking lot is from Columbus Ave. (across the street from the firehouse). It is also T accessible; the nearest T stations are Back Bay on the Orange and Purple lines (exit the rear of the station by the busway and walk down Columbus) and Copley or Arlington on the Green line (use

the Berkeley Street exit). A map appears on page 7 of the newsletter.

People arriving after 7:15 p.m. need to ring the bell at the door to be admitted, as the door is locked then.

Future General Meeting Dates

(Third Thursdays at 7 p.m.)

20 June 2002
18 July 2002
15 August 2002
19 September 2002
17 October 2002
21 November 2002

Minutes of the Boston Amateur Radio Club Business Meeting

BARC Business Meeting Minutes for May 2, 2002
Recorded by Guy Bzibziak KB1CRY, Secretary

Present were:

Mike Ardai N1IST	Vice-President
Arthur Ashley N1NHZ	Membership Services
Hank Buccigross K1QK	
Guy Bzibziak KB1CRY	Secretary
Robert Cassell N1ENS	
Jim Clogher N1ICN	Treasurer
Dick Doherty KA1TUZ	
Mark Duff KB1EKN	President
Peter Grace KB1CVH	
Paul Katz N1LRT	
Dan Malloy KA1RDZ	
Paul Olivieri N1ZKR	
Joe Scully K1SQT	
Blake KB1BTH(?)	

The meeting started at approximately 1900hrs.

Committee reports were read and accepted.

Letters to those who have not yet renewed their club membership yet are out.

At the next VE Session on 13 May, there will be a meeting for working on the Club display.

Mark, KB1EKN went to the Salvation Army covering counseling, critical incident stress, canteen/food service logistics, among other things.

For Field Day, the club received a letter from the Town of Brookline granting permission to use the Field Day site.

The Nominating Committee's report regarding candidates for the Club Officers will be given at the May General Meeting, with the Election being held at the June General Meeting.

Due to Independence Day falling on the first Thursday in July, The Business Meeting for July will be held on 11 July.

Discussion on changing the club bylaws regarding the frequency of General Meetings ensued, more regarding this later.

Paul, N1ZKR, reported on the SEMARC meeting held in April. The next SEMARC meeting will be held at Boxborough during Boxborough.

The May General Meeting will be concerned with Field Day planning.

On June 3rd, MEMA Area 2 will be conducting a Hurricane drill.

The meeting adjourned at 2045hrs.

The next Boston Amateur Radio Club business meeting will be held Thursday, June 6 (1st Thursday of the month), 7:00pm, at the Parlin Memorial Library [410 Broadway, Everett, MA] (off rt. 99) in Everett, MA. Check the Web page and/or listen to the repeater for directions.

This is where the real business of BARC is conducted. If you have any suggestions, questions or comments, this is where to bring them. All members are welcome (and encouraged) to join us at this meeting.

Future Business Meeting Dates

(First Thursday at 6:30 p.m.)

6 June 2002
11 July 2002 (changed for the holiday)
1 August 2002
5 September 2002
3 October 2002
7 November 2002

BARC VE Session

The Boston Amateur Radio Club holds its monthly VE session on the second Monday of each month. The next session will be at 7pm on Monday, May 13, 2002 at the Pierce School at 50 School Street in Brookline, Room 110 next to the cafeteria.

There is a free parking garage at the circular driveway. If driving, enter School Street from the Washington street side (opposite 394 Washington,) rather than from Harvard Street. Check:

http://www.barc.org/barc/school_map.gif
for more info. This map also appears on page 7 of this newsletter.

For those traveling via public transportation, take the "D" branch of the Green Line to the Brookline Village station. Walk north

along Harvard Street 0.2 miles to School Street then turn left. The Pierce School is on the left. The #66 bus runs on Harvard Street, crossing School Street.

Talk in on 145.23(-), PL 88.5.

We give all exams (Technician thru Extra, CW and written), and you don't need to pre-register. Please bring the following with you:

- Your current license *and a photocopy for the ARRL*, if you are upgrading
- Any CSCE's you are claiming, and a photocopy of them
- Valid ID (picture ID preferred)
- A pen and a calculator (if you want to)
- **\$10.00** (good for all the tests you take at that session, except for retests).
- Note that code tests are no longer free. Those taking the code test only will also have to pay the \$10 fee. Code and written tests can be taken together at the same session for a single \$10 fee.

The needed FCC forms will be provided.

For further information, contact

Mike Ar dai, N1IST

781.321.7939

nlist@arrl.net

or

Dick Doherty, KA1TUZ

617.969.4880

ka1tuz@arrl.net

Future Exam Dates

(Second Mondays at 7:00 pm)

10 June 2002

8 July 2002

12 August 2002

9 September 2002

14 October 2002 (subject to adjustment)

11 November 2002 (subject to adjustment)

BARC Growth

It's a rare month when we fail to add a few new members. Periodically we publish their names so that you can give them a special welcome. There may also be some upgrades and long lost members who rejoin, so greet them, too.

Cliff Bowman

N5TJU

Joel Webber II

Please welcome the new BARC members and congratulate the new upgrades. Make it a point to introduce yourself when you see them at a meeting. In addition, we would like to note here all call

Repeaters: 145.23 (-) PL 88.5 447.175 (-) PL 110.9

sign changes. If you fit any of these categories, please promptly notify the Keeper of the Database, Bob Salow, WA1IDA at: 508.650.9440 or email: **walida@arrl.net** .

I See the Future

11 May	RIFMRS Flea (Forestdale RI)
12 May	BARC Breakfast
13 May	BARC VE Exam Session
16 May	BARC General Meeting
19 May	MIT Flea
8 June	FARA Flea (Falmouth)
6 June	BARC Business Meeting
16 June	MIT Flea
20 June	BARC General Meeting
21 July	MIT Flea
27 July	NE Antique RC (Nashua NH)
11 Aug	NoBARC Flea (Adams)
18 Aug	MIT Flea
24-25 Aug	ARRL NE Div Conv (Boxboro)
1 Sept	International Triathlon (Rp)
14-15 Sept	WGBH Ice Cream FunFest
13 Oct	BAA Half Marathon (Rp)

(Rp) = BARC repeater(s) may 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 New England and some of New York, the "Ham - Electronic Flea Market" and the "PSLIST" lists tell the story. They are posted by e-mail to barc-list and on PBBSs regularly. If needed, contact any club member who has access to these.

BARC Net NCS stations needed

Mike Ar dai N1IST

We are constantly looking for people to help run the BARC Net each Monday night. This is a great way to get your feet wet in running a net and a nice way to help out the club. If you can help, please let me know when I ask for volunteers during the net or drop me an email at **nlist@arrl.net**.

Special thanks to KB1EZL, N1NHZ, N1GIE, and all the other regulars who help out by running the nets.

If it is a few minutes after 9 PM and nobody is running the net, please jump in and pick it up. The preamble is in the SPARC and on the BARC web page. If you don't have it with you, just wing it.

BARC Net Preamble

Any further business for the repeater before we begin the Boston Amateur Radio Club Net? This is <<YOUR CALL>>.

Simplex: 147.42

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 145.23 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 checkins for the Boston Amateur Radio Club net please call now.

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.

Catch us on the Internet!

The Boston Amateur Radio Club has a web page at <http://www.barc.org>. Here you can find some of the latest BARC news, sample exams, maps to our meetings and VE sessions, links to other radio clubs, and a club roster (only names, callsigns, and e-mail addresses are on-line). If you have any suggestions, please let me know at nlist@arrl.net.

New on our web page are the club articles:
<http://www.barc.org/articles.html>
and bylaws:
<http://www.barc.org/bylaws.html>.

We also run an FTP site at <ftp.barc.org> under <pub/hamradio>. We've got a mirror of the ARRL infoserver, BARC documents, ham radio software, and a huge mods archive.

We also run a club e-mail list via [qth.net](http://www.qth.net). You can subscribe, unsubscribe, or manage your [qth.net](http://www.qth.net) subscriptions at <http://www.qth.net>. This change applies to all mailing lists previously on [qth.net](http://www.qth.net) directly.

73, /mike
nlist@arrl.net

Amateur Extra class population tops 100,000

For the first time ever, the population of Amateur Extra class operators topped 100,000 licensees. According to figures available from the FCC Amateur Radio Statistics Web site <http://ah0a.org/FCC/index.html> compiled by Joe Speroni, AH0A, there were 100,153 Extra; 85,690 Advanced; 138,980 General; 319,768 Technician (including Tech Plus); and 38,574 Novice licensees. As of the end of April, there were 683,165 total

Amateur Service licensees in the FCC database. According to Speroni's statistics, 1888 new licensees came aboard during April 2002--1800 of them as Technicians.

The ARRL Letter
Vol. 21, No. 18
May 3, 2002

Several Hundred Boston Area Hams Could Be Reading Your Ad Right Now

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

Rates for display advertising are:

1 col x 2 in. (business card)	\$10 per issue
1 col x 2 in. (business card)	\$50 per 6 consecutive months
1 col x 2 in. (business card)	\$90 per 12 consecutive months
1 col x 4 in. (1/2 col)	\$20 per issue
1 col x 9.5 in. (full col)	\$40 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 Paul Carter at n1tmf@pvcronics.com or 617.232.6982; or Bob Salow at walida@arrl.net or 508.650.9440.

Your Ad Could Have Been Here

Are you a depressed BARC member because you have a treasure you must turn to cash and you couldn't make it to the last flea market? Well, cheer up, Bunky! The SPARC will run your (non-business) ad for free. Of course, a 10% donation if you sell it (and of course you will) will be cheerfully accepted. Just send your ad to Editor Paul Carter, N1TMF.

Money can't buy happiness, but it sure makes misery easier to live with.

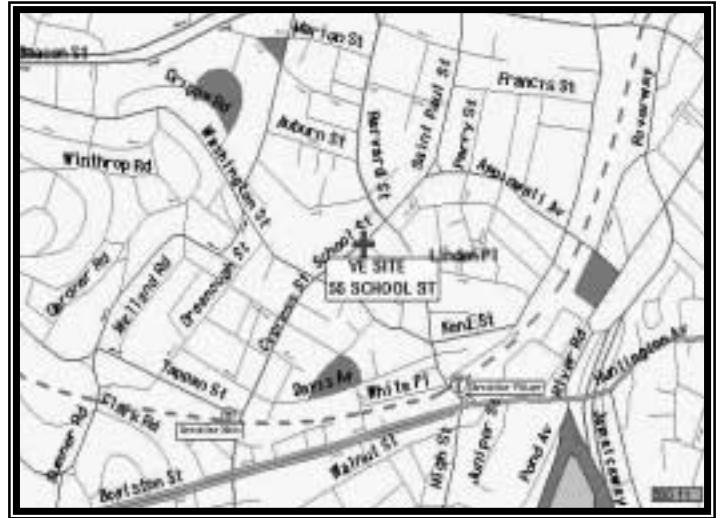
It's frustrating when you know all the answers, but nobody bothers to ask you the questions.

So, what's the speed of dark?

I'd like to help you out – how did you get in?



General Meeting – Boston Salvation Army
 Corner of Berkeley St. and Columbus Ave.



VE Session – Pierce School
 50 School Street, Brookline, Room 110 next to the cafeteria

BARC Officers and Staff

President: Mark Duff, KB1EKN	781.749.7664; emgmt@attbi.net
Vice President: Mike Ardai, N1IST;	781.321.7939, nlist@arrl.net
Secretary: Guy Bzibziak, KB1CRY;	781.321.1104; kb1cry@arrl.net
Treasurer: Jim Clogher, N1ICN,	617.364.4658; nlicn@rcn.com
Vol Exams: Mike Ardai, N1IST;	781.321.7939, nlist@arrl.net
Dick Doherty; KA1TUZ	617.969.4880; ka1tuz@arrl.net
Membership: Arthur Ashley, N1NHZ;	617.661.2988, n1nhz@arrl.net
Public Service: Bob Salow, WA1IDA;	508.650.9440; walida@arrl.net
Newsletter Editor: Paul Carter, N1TMF;	617.232.6982; n1tmf@pvctronics.com

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 Special Service 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 a participant in Partnerships Advancing Technical Hobbies Which Attract Youth to Science (PATHWAYS). The Club is also an associate member of the Courage Handi-Hams system.

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Greater Boston Net Directory

daily 5:30pm	Eastern Mass/Rhode Island Phone Net (NTS)	3.915
daily 7 and 10pm	Eastern Mass/Rhode Island CW Net (NTS)	3.658
daily 8pm	Eastern Mass 2M Traffic Net (NTS)	145.23 (PL 88.5)
daily 8pm	Slow Speed CW Net	28.160
daily 10:30pm	Heavy Hitters' Traffic Net (NTS)	146.64
M 9pm	BARC Club Net	145.23 (PL 88.5)
Tu 8pm	MMRA Club Net	146.61 and all MMRA links
Tu 9pm	EMA Public Safety Net	145.23 (PL 88.5)
Tu 9pm	NETARC Satellite Net WIME (ex K1MON)/NCS	446.575 (PL 88.5)
W 8pm	Wellesley Amateur Radio Society Net	147.03
W 9pm	HHTN Swap Net	146.64
Th 8:30pm	Amsat Net N1OHJ/NCS	146.64
Su 9:30am	Yankee SSB Net (6M)	50.275
Su 3:30pm	Youth Net	3.970
Su 7pm	Algonquin Amateur Radio Club Net	53.470 (PL 100.0/71.9), 223.860 (PL 241.8), 446.675 (PL 88.5)
Su 8:30pm	NSRA Net (with Newslines)	145.47
Su 9:30pm (4 th Sun. of Month)	EMA Section ARES Net	146.61 and all MMRA links

Repeaters: 145.23 (-) PL 88.5 447.175 (-) PL 110.9

Simplex: 147.42