



The SPARC

Amateur Radio - Communicating Worldwide for A Century

Newsletter of the Boston Amateur Radio Club

August 2011 - VOLUME 23, NUMBER 8

www.barc.org - w1bos@arrl.net



Message from the President - Tom Bertolino, KB1P

It is August, the middle of the summer. We just made it through the first real heat wave of the summer with high humidity and temperatures in the high 90s (with at least one day over 100). I hope everyone is enjoying the summer despite the heat. Just remember not too long ago we had snow banks over 6 feet high. Don't you just love living in New England?

Some updates: EchoLink is up and working for the weekly BARC Net. For now the link to W1BOS (the 145.230 repeater) is available only on Monday nights during the BARC net. The net is hosted by Joe, W1JJF, and meets every Monday night at 9:00 pm. You do not need to be a BARC member to join in. So if in the past you could not join the net because you could not hit the repeater, you can now join in through EchoLink. Just go to EchoLink's repeater section connect to KB1P-R. The connection will link you to the .23 machine. The link will be made available from about 15 minutes before the net to about ½ hour after (unless the link is in use). The next step is to permanently link EchoLink to the .23 repeater.

The club's end of summer get together is back. The date is **Saturday, August 27th**. The place is the Bare Cove Fire Museum in Hingham. The fire museum is empty in preparation for its renovation after the Labor Day weekend, so we have the place to ourselves. This year we are combining a cookout with an operating event. The plan is to set up two HF stations and operate from 1200 to 1700 hrs. The cookout will be held from 1400 to 1600 hrs. See the full notice below. I want to remind everyone that BARC's summer break ends with August. September is the month we resume our meetings and VE testing. **September 1st** is our Business Meeting, **September 12th** is the VE session (by reservation), and **September 15th** is the General Meeting. All our meetings are open to the public. I hope to see you at the meetings.

Invitation to BARC's "End of Summer Get Together" --Tom, KB1P, President, BARC

BARC's end of summer get together is back. The place is Bare Cove Fire Museum, in Hingham; the date is **Saturday, August 27th**. The fire museum is empty in preparation for its renovation after the Labor Day weekend, so we have the place to ourselves. The plan is to combine an HF operation event with a cookout. We will setup two HF stations and operate from 1200-1700. The cookout will be held from 1400-1600. The club will supply the food and drinks. A grill will be available if you want to bring your own food. If you want to attend the cookout, and do not want to bring your own food please make a reservation before August 26th so we can plan on how much food to get.



Reservations can be made by contacting me or Mark, KB1EKN. My email address is kb1p@arrl.net. Mark's email address is emgmt@comcast.net.

The Greenbush Commuter Rail line is closed for repair during the weekends. If you plan to attend and know a member who would like to go to the cookout and does not have transportation to BCFM please offer him or her a ride. If you need a ride, just ask.

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ARISSat-1 Test and Launch --AMSAT News Service 07/24/2011

The ARISSat-1 satellite (also known as KEDR) has spent several months aboard the International Space Station waiting for deployment by crew. According to the AMSAT News Service, that day is arriving soon.

AMSAT's Gould Smith, WA4SXM, stated, "As of July 22 we are looking at an August 3, 2011 date for EVA 29 and the ARISSat-1/KEDR deployment, subject to change due to ISS schedules. The preliminary Russian EVA-29 timeline shows the ARISSat/KEDR deployment is the first task of the EVA, so it will occur fairly soon after the EVA begins."

The ARISSat-1/KEDR battery is scheduled to be charged 24 hours beginning 24 July at 09:45 UTC. A test of the satellite inside the ISS is scheduled to run from 1900 UTC on Saturday, July 30 and turned off at 14:30 UTC on July 31.

During the test and upon deployment, ARISSat-1 will be active on the following frequencies and modes:

145.950 MHz FM Downlink: FM transmissions will cycle between a voice ID as RS01S, select telemetry values, 24 international greeting messages in 15 languages, and SSTV images.

435 MHz - 145 MHz Linear Transponder: The linear transponder will operate in Mode U/V (70 cm Up, 2m Down). It is a 16 kHz wide inverting passband and the convention will be to transmit LSB on the 435 MHz uplink and receive USB on the 145 MHz downlink.

145.919 MHz/145.939 MHz CW Beacons: The CW transmissions will be call sign ID RS01S, select telemetry, and call signs of people actively involved with the ARISS program.

145.920 MHz SSB BPSK-1000 Telemetry: The BPSK transmissions will feature a new 1kBPSK protocol developed by Phil Karn, KA9Q. When the CW2 beacon on 145.919 MHz is active this indicates that the BPSK-1000 format is being transmitted. If the CW1 beacon on 145.939 MHz is active the backup of BPSK-400 format is being transmitted.

More information and links to software downloads are available on the [AMSAT website](#).

Worked all States

We have two members, who this summer, completed ARRL's requirement of Worked All States by having a two way Amateur Radio communication with another ham in all 50 States. They are Bill Collins, W1PL, and Joe Harris, N1QD. Congratulations!

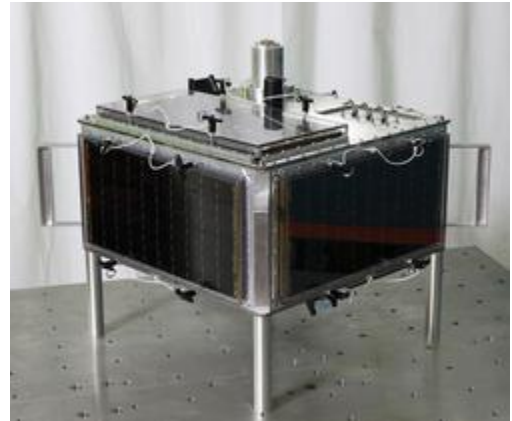
W1BOS Trustee Change Notice

Joe Harris, N1QD, is now the trustee of the club's station and call sign W1BOS. All coordination for the use of the club's 2 meter repeater, 145.230 (-) CTCSS 88.5, and the 70 cm repeater, 443.550 (+) CTCSS 110.9. Requests for event use must now go through Joe. Joe's email address is n1qd@arrl.net.

Got a Story? Why not share It! -- Jim Bradley, KB1JKJ

We are always looking for articles for the newsletter. So I have reserved this space for your articles, tips, how-to's, or other ham related information. Send your submissions to the Editor, Jim, KB1JKJ, at <james.bradley4@comcast.net>.

Articles for the September issue need to be received by 30 August.



ARISSat-1 is set to be launched from the ISS on Wednesday, August 3

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Hurricane Hazards and Preparation -- National Weather Service

Hurricane hazards take many forms across southern New England and include storm surge, high winds and tornadoes, heavy rains, and freshwater flooding. Here are some thoughts to consider when planning for such conditions.

- *Minimize the distance you travel to escape flood waters. The more distance traveled increases the likelihood of encountering traffic congestion or other roadway problems. Also consider the nearest public shelter in your local area. Do not get on the road without a planned route or destination. Ensure your chosen route is still passable. Routes designated by local emergency management authorities are best.*
- *Before leaving fill your car with gasoline and withdraw extra money from your bank or an ATM. Take all medicines and special medical items such as diapers and glasses. You should have enough medicine to last for at least one week.*
- *Expect significantly longer travel times to reach your intended destination.*
- *Avoid driving into water of unknown depth. Moving water could quickly sweep your vehicle off the road. In addition, the water may harbor contaminants such as oil and sewage.*

There are two main source regions for New England hurricanes – the Cape Verde islands west of Africa and the Bahamas. The Cape Verde storms can become huge because they have a week or more to stroll across the Atlantic, and we know they are coming well in advance. Named tropical systems originating in the Bahamas have the potential to quickly become our threat in southern New England because they tend to be somewhat smaller, but can develop rapidly and impact New England very quickly.

Do not concentrate on when the hurricane eye is going to make landfall. This will be too late for your preparations. Storms accelerate up the coast and become very asymmetric. The important effects of the storm are thrust well ahead of the eye.

A rule of thumb for New England hurricanes is: run from the water and hide from the wind. The most significant threat from hurricanes is flooding, either due to coastal inundation or heavy rainfall. Along a coastline, the main threat is the storm surge. The storm surge is simply water from the ocean pushed toward shore by the wind.

Online Certificate Service - ARRL Contest Update, June 8, 2011

If you'd like to print out a spiffy version of your hard-won Amateur Radio license, try this online certificate service at <http://www.ae7q.net/Generate.php>. It's not official, but good enough to show your family or all the other hams you know.

Business 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. (1/2 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 Tom Bertolino, KB1P, at 781.608.6186 or <kb1p@arrl.net>; or Bob Salow at <wa1ida@arrl.net> or 508.650.9440.

What's With ARES® Versus RACES -- ARES E-Letter, June 15, 2011

Q: Tell me about the similarities and differences between the ARES® groups and the RACES groups. I am part of an ARES group, but I really don't know why ARRL has two organizations that seem to be doing the same thing.

A: After World War II, it became evident that the international situation was destined to be tense and the need for some civil-defense measures became apparent. Successive government agencies designated to head up such a program called on amateur representatives to participate.

In the discussions that followed, amateurs were interested in getting two points across: First, that Amateur Radio had a potential for and capability of playing a major role in this program; and second, that our participation should be in our own name, as an Amateur Radio Service, even if and after war should break out. These principles were included into the planning by the formulation of regulations creating a new branch of the amateur service, the Radio Amateur Civil Emergency Service, RACES.

RACES is administered by local, county and state emergency management agencies, and supported by FEMA. It is a part of the Amateur Radio Service that provides radio communications for civil-preparedness purposes only, during periods of local, regional or national civil emergencies. These emergencies are not limited to war-related activities, but can include natural disasters such as fires, floods and earthquakes.

RACES operation is authorized by emergency management officials only, and this operation is strictly limited to official civil-preparedness activity in the event of an emergency communications situation.

Operating Procedure

Amateurs operating in a local RACES organization must be officially enrolled in the local civil-preparedness agency having jurisdiction. RACES operation is conducted by amateurs using their own primary station licenses and by existing RACES stations.

The FCC no longer issues new RACES (WC prefix) station call signs. Operator privileges in RACES are dependent upon, and identical to, those for the class of license held in the Amateur Radio Service. All of the authorized frequencies and emissions allocated to the Amateur Radio Service are also available to RACES on a shared basis.

While RACES was originally based on potential use for wartime, it has evolved over the years, as has the meaning of civil defense (which is also called civil preparedness), to encompass all types of emergencies.

While operating in a RACES capacity, RACES stations and amateurs registered in the local RACES organization may not communicate with amateurs not operating in a RACES capacity. Such restrictions do not apply when such stations are operating in a non-RACES - such as ARES - amateur capacity. Only civil-preparedness communications can be transmitted.

Test and drills are permitted only for a maximum of one hour per week. All test and drill messages must be clearly so identified. With the approval of the chief officer for emergency planning and applicable state, Commonwealth, district or territory, however, such tests and drills may be conducted for a period not to exceed 72 hours no more than twice in any calendar year.

ARES and RACES

Although RACES and ARES are separate entities, the ARRL advocates dual membership and cooperative efforts between both groups whenever possible for an ARES group whose members are all enrolled in and certified by RACES to operate in an emergency with great flexibility. Using the same operators and the same frequencies, an ARES group also enrolled as RACES can "switch hats" from ARES to RACES and RACES to ARES to meet the requirements of the situation as it develops. For example, during a "nondeclared emergency," ARES can operate under ARES, but when an emergency or disaster is officially declared by a state or federal authority, the operation can become RACES with no change in personnel or frequencies.

This situation is still not well understood and accepted throughout the United States; both ARES and RACES still exist, separately, in many areas.

Where there is currently no RACES, it would be a simple matter for an ARES group to enroll in that capacity, after a presentation to the civil-preparedness authorities. In cases where both ARES and RACES exist, it is possible to join both or to be involved in either. As time progresses, the goal would be the merger into one strong organization, with coordination between ARES and RACES officials using the same groups of amateurs. In some sections of the U.S. today, the ARES structure has also been accepted as the RACES structure.

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BAA Half Marathon Is On the Way -- Bob Salow, WA1IDA

When the name Boston Athletic Association (BAA) is attached to an event, the world of runners jumps to attention. Runner registration for the Half Marathon was opened in mid-July. In four hours the limit of 7000 entrants was reached.

BARC is proud to be asked to coordinate ham communications for this event, as we have for the past nine years. Now in its tenth year, this "Boston Tradition" is expected to be better than ever. Ham radio has established its community value at times like these. We are asked to support safety and administrative communications. With a little fine-tuning, including many ideas from hams, the event is expected to be even better than last year.

As in 2010, the race starts and finishes at beautiful Franklin Park. The course on the "Emerald Necklace" is 98% in Boston and 2% in Brookline and is qualified to international standards. We need you again, and the Race Director has asked for even more ham assignments (that's what happens when we are appreciated).

If you are new to ham public service (or don't have much familiarity with it), this is the way to become familiar without much pressure. For hams, this is an easy introduction and an appreciated community service.

Date: **Sunday, 9 October 2011**

Ham start: 0600 or 0700 (because of road closures)

Ham finish: 0930 to 1130 (depending on location)

Yes, I know it is the day before Columbus Day. The upside is it starts early and ends early, leaving plenty of time to enjoy the long weekend. Your help is greatly needed to continue this as a superb event and to uphold our reputation for dependable support. Our assignments consist of monitoring hazardous and critical locations along the course, and the medical/support stations. As we did in the past, we plan to use a 2-meter repeater and possibly a 70-cm repeater. A hand-held with a good battery and an antenna better than a "rubber duck" is the way to go.

If you can help, please contact the BARC Public Service Office as soon as possible. The assignments and more detail will be sent as soon as they are available. Net Control will be at White Stadium. If you wish, you can be transported to your assignment on the course, but for most assignments, you can go directly to your station. Please send your best email address and a phone number (cell, also). Parking should be available very close to each assignment. Feel free to contact Tom Bertolino, KB1P, to volunteer or if you have any questions, at kb1p@arrl.net or 781.608.6186.

BARC Growth

It's a rare month when we fail to add or upgrade a few 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.

Steve Jamison

N1GJS

Please welcome 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 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: wa1ida@arrl.net.

Ground Rod Out -- Bob Salow, WA1IDA

If you thought pounding in a ground rod was tough, try extracting one from Mother Earth. Here's a way to ease its release.

Dig a small depression around the exposed top of the rod. For several days before the project, soak the depression full of water with a small amount of dish detergent. Using a hefty pipe wrench, twist the rod back and forth without lifting it until the earth lets go. Then by lifting and twisting gently you can separate the rod from the earth.

HF Operating Tip

Summertime propagation can be quite different from that in the winter. As the northern hemisphere enters the summer months, the southern hemisphere is entering winter. Don't forget to listen for them in ways you hope they will listen for us in our winter!

Repeaters: 145.230 (-) CTCSS 88.5

Simplex: 147.420

443.550 (-) CTCSS 110.9

I See the Future

21 Aug	MIT Flea (Cambridge)
27 Aug	BARC's End of Summer Get Together
28 Aug	NoBARC Flea (Adams)
1 Sep	BARC Business Meeting
12 Sep	BARC VE Session (by reservation)
15 Sep	BARC General Meeting
17 Sep	RIFMRS Flea (Forestdale RI)
18 Sep	MIT Flea (Cambridge)
9 Oct	BAA Half Marathon (Rp)
10 Oct	BARC VE Session (by reservation)
14,15 Oct	NEAR Fest (Deerfield NH)
16 Oct	MIT Flea (Cambridge)
20 Oct	BARC General Meeting
4 Nov	HCRA Auction (Feeding Hills)
5 Nov	IRS Flea (Londonderry NH)
12 Nov	Falmouth ARA Flea (Bourne)
14 Nov	BARC VE Session (by reservation)
17 Nov	BARC General Meeting
3 Dec	SKYWARN Recognition Day at Blue Hill Observatory

(Rp) = BARC Repeater(s) may be used

Note: In the June issue of this newsletter there were some incorrect references to the date of the BAA Half Marathon. The correct date is Sunday, 9 October.

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. Of course, if you know of an event that would be of interest to the readers, please let the Editor know.

ARRL Launches Online Forums

-- *ARRL Letter, July 28, 2011*

To assist League members in communicating with one another and with ARRL staff on topics of common interest, the ARRL has established three forums -- Contesting, Awards and Technology -- on the ARRL website. Visit www.arrl.org/forums to chat with fellow hams about these topics. Additional forums are planned once we have gained some experience with these three. ARRL members, guest users and others can view the threads, but in order to participate in the conversations or ask questions, you must be logged in as an ARRL member. All users should read the [forum rules](#) before participating.

Looking Ahead At Public Service

- *Bob Salow, WA1IDA*

When hams engage in public service as mandated by the FCC Rules, the benefits go well beyond just following the rules. We can enjoy our hobby - have fun! We protect the health and safety of event participants. We support worthy charities. We learn to work within an organized effort. We experience the technical aspects of operating under adverse conditions. We practice communicating under emergency conditions. We can demonstrate these qualities to the communities we serve and thus promote our service for their acceptance.

Throughout the year BARC coordinates numerous public service events. Most of these are open to hams who are new to helping at such events as well as experienced hams. Feel free to contact Tom Bertolino, KB1P, at 781.608.6186 or [<kb1p@arrl.net>](mailto:kb1p@arrl.net).

- *BAA Half Marathon – 9 October – (Boston)*
- *SKYWARN Recognition Day – 3 December – (Blue Hill Observatory, Milton)*

Other events may jump in on short notice. Among our skills is the ability to apply our technical, organizational and staffing quickly and proficiently. Join our team and join in the fun and learning.

If you are interested in other Public Service Volunteer Opportunities in the New England Division check out the PSLIST at [<www.n1nc.org/PSLIST/>](http://www.n1nc.org/PSLIST/).



Hands-Only™ CPR  **1** **Call 911**  **2** **Push hard and fast in the center of the chest.** **Learn more at handsonlycpr.org**

  **Learn and Live**

The SPARC

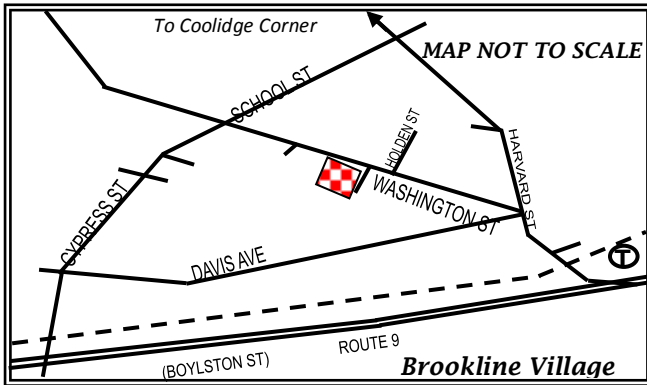
A Continuing Need for Our 70cm Repeater - Bob Salow, WA1IDA


Your help is needed to verify the coverage and signal quality of our 70cm repeater. At several times of the day, please try to make contacts and get signal reports. Make notes of your location, the type of radio, the power used, and the reported signal quality. Send this information to Tom Bertolino, KB1P, at kb1p@arrl.net or call him at 781.608.6186.

The frequency is: 443.550 MHz (+), CTCSS 110.9 Hz. Check it out and please report.

Based on these reports and other measurements, further tuning and other improvements are in progress. Please continue checking and reporting to help make this repeater fully operational.

Directions to the Brookline Police Headquarters, 350 Washington Street, Brookline MA





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

BARC Volunteer Exam Sessions

The Boston Amateur Radio Club holds monthly VE sessions on the second Monday of each month. **The July and August exams are omitted.** Sessions are held at 7:00 pm at Brookline Police Headquarters, 350 Washington St in the Community Room across from information desk. A map is shown below

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 ID (picture ID preferred)
- 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.

For further information, contact:

Jim Clogher, N1ICN, 617.364.4658 n1icn@arrl.net
Tom Bertolino, KB1P, 781.395.5538 kb1p@arrl.net

Got a Story? Why not share It! -- Jim Bradley, KB1JKJ

We are always looking for articles for the newsletter. So I have reserved this space for your articles, tips, how-to's, or other ham related information. Send your submissions to the Editor, Jim, KB1JKJ, at [<james.bradley4@comcast.net>](mailto:james.bradley4@comcast.net).

Articles for the September issue need to be received by 30 August.

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Simplex: 147.420

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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 Tom Bertolino, KB1P, at <kb1p@arrl.net>.

BARC Officers and Staff

President: Tom Bertolino, KB1P;
781.608.6186; kb1p@arrl.net

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617.500.4406; na1i@arrl.net

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978.663.7114; kb1jkj@arrl.net

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Programs & Activities: Phil Temples, K9HI;
617.744.9780; phil@temples.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 also an associate member of the Courage HandiHams system.

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Greater Boston Net Directory

Daily 5:30 pm	Eastern Mass/Rhode Island Phone Net (NTS)	3.915
Daily 7 and 10 pm	Eastern Mass/Rhode Island CW Net (NTS)	3.658
Daily 8 pm	Eastern Mass 2M Traffic Net (NTS)	145.230 (PL 88.5)
Daily 8 pm	Slow Speed CW Net	28.160
Daily 10:00 pm	Heavy Hitters Traffic Net (NTS)	MMRA-linked repeaters: 146.610, 146.670, 146.715, 146.820, and all 222 and 440 repeaters
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)
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	HHTN Swap Net	146.640
Thu 8:30 pm	AMSAT Net	146.640
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 Newslines)	145.470

Repeaters: 145.230 (-) CTCSS 88.5

Simplex: 147.420

443.550 (+) CTCSS 110.9