

The SPARC

Amateur Radio - Communicating Worldwide for A Century

Newsletter of the Boston Amateur Radio Club September 2010 - VOLUME 22, NUMBER 9 www.barc.org - w1bos@arrl.net



Message from the President

- Tom Bertolino, KB1P, President

September is the traditional beginning of a new year for BARC. It marks the start of the club's General and Business meetings after a summer off. All the club's meetings are open that means anyone can attend. BARC normally holds its General Meetings at 7:00 pm on the third Thursday of each month and its Business meetings are normally held quarterly on the first Thursday of the month at 7:00 pm. There are some exceptions to this rule. We do not hold meetings during the months of July and August and the date may change based on availability of presenters or the Community Room at Brookline Police HQs, 350 Washington Street, Brookline MA. One example of an exception is our October General meeting. This meeting is being held on the second Thursday in October (14th) at the Clay Center, 20 Newton Street, Brookline.

The September's General Meeting will have a guest speaker, Mike, N1IST. He will discuss urban antennas and how you can survive with them. The meeting starts at 7:00 pm. September also is the restart of the Club's VE testing. BARC offers Amateur Radio License testing to hams who want to upgrade and people want to become hams. Tests are by appointment and held at 7:00 pm on the second Monday of each month starting in September (except October) and ending in June. The VE testing is held in the Community Room, Brookline Police HQs. You can make an appointment by contacting Jim, N1ICN, 617.364.4658; n1icn@arrl.net or Tom, KB1P, 781.608.6186; kb1p@arrl.net.

There are two events in October that BARC is coordinating. They are; The Blue Hill Observatory Fall Open House on 2 Oct, and the BAA Half Marathon on 10 Oct. At The Blue Hill Observatory Fall Open House, BARC will set up an HF station and operate it from 0900 – 1500. We will need hams to help setup, operate the station, and tear down. This event offers an excellent opportunity for hams who hold a tech license to experience (under supervision) on bands that that are not otherwise authorized to their license class. This should be a fun time so if you can help setup, tear down, or want to operate contact Tom, KB1P.

On October 10th the Boston Athletic Association will hold its 10th annual running of BAA Half Marathon. There are new Start and Finish lines in White Stadium in Franklin Park. The course will have some changes based on the new starting and ending points. This is a high profile event with world class runners. This is an excellent public service event for these who have not done a public service event, but

always wanted to do one. I will be sending out request for volunteers soon.

I am looking forward to seeing you at one of the meeting.

73 KB1P -----

BARC September Meeting
Up, Up, In the Air
But What If You Are In Cramped Quarters?

See Page 8 for more details

Inside This Issue

- 1 Message from the President
- 2 BARC Officers and Staff
- 2 | I See the Future
- 3 Morse Code and Me
- 4 Minutes of the Boston Amateur Radio Club Business Meeting: September 2, 2010
- 5 BARC Volunteer Exam Sessions
- 6 Blue Hill Observatory Fall Open House
- 6 BARC Growth
- 7 Locking Ahead at Public Service
- 8 BARC September Meeting

BREAKING NEWS

Phil Temples, K9HI, has been elected as Section Manager (SM) for the ARRL Eastern Massachusetts Section. His two year term begins on 1 January 2011. Since no competitive nominations were received by the closing date, the ARRL declared Phil to have been elected. The present SM, Mike Neilsen, W1MPN, had decided not to seek reelection.

Phil, a BARC member since the formation of the club and a Past President, has held the office of SM for several terms in the past.

Repeaters: 145.230 (-)CTCSS 88.5 Simplex: 147.420 444.050 (-)CTCSS 110.9 Hz

The SPARC

BARC Officers and Staff

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

Vice President: Linda Blair, NA1I 617.500.4406; na1i@arrl.net

Secretary: Jim Bradley, KB1JKJ; 978.663.7114; kb1jkj@arrl.net

Treasurer: Jim Clogher, N1ICN, 617.364.4658; n1icn@arrl.net

Volunteer Exams:

Jim Clogher, N1ICN,

617.364.4658; n1icn@arrl.net

Tom Bertolino, KB1P;

781.608.6186; kb1p@arrl.net

Membership Services: Linda Blair, NA1I 617.500.4406; na1i@arrl.net

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

Newsletter Editor: Jim Bradley, KB1JKJ 978.663.7114; kb1jkj@arrl.net

Programs & Activities: Phil Temples, K9HI; 617.744.9780; phil@temples.com

I See the Future



Note: Meetings and VE Exams are omitted in July and August

16 Sep BARC General Meeting19 Sep MIT Flea (Cambridge)

2 Oct Blue Hill Observatory Fall Open House

10 Oct BAA Half Marathon (Rp)

14 Oct BARC General Meeting (Note change of date and location)

15-16 Oct NEAR-Fest VIII (Deerfield NH)

17 Oct MIT Flea (Cambridge)

5 Nov HCRA Auction (Feeding Hills)
 6 Nov IRS Flea (Londonderry NH)
 8 Nov BARC VE Session (by reservation)

CAARA Flea (Rockport)

13 Nov FARA Flea (Bourne)
18 Nov BARC General Meeting

4-5 Dec SKYWARN Recognition Day – Station at BHO

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

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.

20 Nov

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 Handi-Hams system.

The SPARC is published monthly by the Boston Amateur Radio Club. The design and content are Copyright 2010, all rights reserved. Permission is hereby granted to reprint or distribute by electronic or other means any material herein, provided this publication and the issue date are credited. Such permission is limited to use for non-commercial purposes for the benefit of the Amateur Radio community. Permission for other purposes must be obtained in writing.

Repeaters: 145.230 (-)CTCSS 88.5 Simplex: 147.420 444.050 (-)CTCSS 110.9 Hz

2

MORSE CODE AND ME

- Tom Bertolino, KB1P

I had been studying for the code test for a while, and I was sure I was ready to take the level 1 test when I heard that Morse code was no longer a requirement for General or Amateur Extra class licenses. So, I stopped studying Morse code and began to prepare for my General, then my Extra class license exams.

That was over three years ago. Now my interest in learning Morse code has been rekindled. I went looking for my ARRL code discs. I dusted them off, uploaded them onto my computer then to my MP3 player and started the learning process all over again. My wife and friends who saw me with phones on my ears asked me what I was listening to. I replied, I am listening to Morse code. They give me a funny look and said OK!

I soon discovered that learning Morse code is like learning a new language, and learning a new language at my age is not easy especially if you're well on your way to being tone deaf. I'm hanging in there though and learning slowly. I am certain; I will eventually get all those dits and dahs in the right order. I know that someday, longer than sooner, that I will wake up and it will all make sense to me. I will be able tell if the letter is an S or an H, or if it is a P or an X and I will be able to transcribe the practice code test on the ARRL code disc the first time. I am confident this will happen, but when, I don't know.

To help speed up my learning progress, I thought listening to Morse code on the 20 Meter Band would help me. I was hoping I could recognize some letters or even be able to transcribe some words or a QSO. Boy did I get a shock. Is there anyone out there sending code below 25 words per minute? I was amazed at the speed Hams are sending and receiving code. How could anyone send code so fast and understand what is being sent to them at those speeds? I soon found out I have a long way to go before my 3 to 5 words per minute copy rate will be allow me to transcribe anything more than an occasional O or and S.

Not to be discouraged I buckled down studied more, and started to look for other ways or methods to learn code and improve my copying speed. I Googled Morse code and CW and found a site run by Simon N Twigger, AA9PW. <aa9pw.com/morsecode/> It offers practice code tests and a way to test your ability to copy at different speeds. You can choose letters, numbers, punctuation and pro-words or a combination of all. You can also get live CW RSS news feeds. You decide what you need to learn or practice, select it from the menu, then hit the "generate Morse code" button, the code will then play on your computer's media player. Once you have transcribed the sent code you can check your copy by clicking on the review text button. If you are studying code or trying to improve your copy speed I recommend at a minimum that you look at this site and maybe try one of the options offered. I found that this site has helped me.

Another thing I needed to do was to listen to and transcribe actual CW QSO's. To do this I needed to find a Morse code decoding program. So

I started to search the internet to find a program. I discovered that there are many decoding programs offered on the net. Some are free; for others you will need to pay a fee after a trail period. These programs allow your computer, through a sound card, to decode Morse code. Some programs will actually send code after you type what you want to send. To use these programs you will have to connect your rig to your computer through a serial port. So you will need the appropriate decoding program and cable to connect your rig to your computer. I downloaded a freeware program called CW Decoder. CW Decoder is not rated as the best decoding program. It has its pluses and minuses. But, I found it easy to set up and use and it met my requirement to transcribe code. Once my computer was connected to my rig, and I brought up the CW Decoder program, I tuned my rig to a frequency sending code. I then aligned the program to the frequency. When everything was aligned the program began to decode the QSOs.

Now through the aid of my computer I could listen to actual QSOs. I could see what conventions where being used during CW QSOs and how different hams were using the pro-words and abbreviations to simplify their transmissions. The more I listened the better I understood how code is sent and received. I was starting to put it all together. I began to identify some rhythms in the way code is sent (even though there is a slight delay between the time the code is sent and the time the program transcribes the code). I now can identify a station sending CQ, but my copy speed has not allowed me to pick out the station's call sign yet.

I know that if I continue to listen to the code discs, test myself on Simon N Twigger's site, and continue to monitor CW on the bands my copy speed will improve and I will master receiving Morse code.

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>.

Repeaters: 145.230 (-)CTCSS 88.5 Simplex: 147.420 444.050 (-)CTCSS 110.9 Hz

The SPARC

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.

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.

John Baksys W1ABN

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.

Minutes of the BARC Business Meeting: September 2, 2010 Submitted by: Jim Bradley, KB1JKJ

Present were:

Tom Bertolino, KB1P, President
Jim Bradley, KB1JKJ, Secretary
Joe Harris, N1QD
Jim Clogher, N1ICN, Treasurer
Arthur Ashley, N1NHZ, Executive Officer
Linda Blair, NA1I, Vice President
Mike Ardai, N1IST
Bob Salow, WA1IDA, Executive Officer
Frank Murphy, N1DHW

18:45 PM Meeting was brought to order at 1845 by the President.

Treasurer's Report: Jim, N1ICN, reported that the bank balance was \$ 3,845.17.

Repeater Report: Tom, KB1P reported that 145.230, is working fine and that Monday Night Net has not noticed any problems.

On the 444.050 side, Tom, KB1P reported that the receiver is much better with the new preamp. However, the new assigned frequency pair appears to interfere with the Waltham repeater. Another frequency pair will be tested for compatibility.

Linda, NA1I suggested that the club revive the Repeater Committee to oversee the operation and maintenance of the club repeaters. Tom assigned the Vice President to chair this committee and appoint the following committee members Mike, Ed Parish, John Garrett.

Access to the repeater site was discussed and Tom, KB1P will add members to the list.

Public Service: Tom, KB1P will be recruiting hams for the BAA Half Marathon on 10 October.

New Business:

Membership Services: Linda discussed the problems with the ARRL New Ham list. Bob, WA1IDA is working with ARRL HQ to resolve this computer problem. Also, the New Ham information kit was discussed.

Events: Tom discussed the clubs two upcoming events:

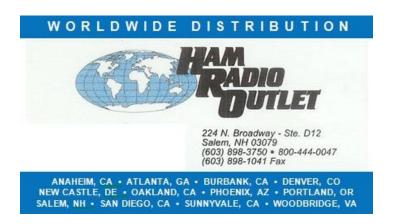
At the Blue Hill Observatory Fall Open House on 2 Oct, BARC will set up an HF station and operate it from 0900 – 1500.

SKYWARN Recognition Day – Station at BHO on December 4 and 5. We will setup 2 HF stations on Friday December 3. Joe will take care of getting paper QSL cards.

Contribution to the Brookline Police Fund Tom will check with Kathy Flannigan the Chief's admin to get information on how to best make a donation for the use of the room.

Develop relationship with Town of Brookline – Police, Fire, Emergency Management, CERT. How should the club support the Town

What can BARC do as a club activity to support and actively participate in the October - Eastern Mass Simulated Emergency Test (SET) Inform members how and where to participate. Start by contacting Rob Macedo.



Determine 2011 Field Day site: Possible locations are Brookline CERT, Larz Anderson Park, and the Bare Cove Fire Museum. Discussion tabled until December Business Meeting.

SPARC publishing during July and Aug No decision was made but we talked about reducing the number of pages. All felt there was value to the members in publishing *The SPARC* during these months.

Starting in January 2011 all new members will receive *The SPARC* by email.

Finding an eating place in the area. The following restaurants were suggested: Smoke House (not handicap accessible), a Chinese Restaurant and Turkish Restaurant and local sub shop.

Form ad hoc committee to review the Bylaws and Articles of Organization and possibly recommend any changes

Tom appointed Linda, NA1I and Jim, KB1JKJ to this committee which will be chaired by Linda. All members present will review on line copies of *The SPARC* to see if past changes were published but not incorporated in the current Bylaws and Articles of Organization.

Old Business:

Purchase a Battery? Where to store it? It was decided that we will purchase 70 amp-hr Gel Battery in March. The battery will be stored with the club's radios at Tom's house.

Buying Coax? Where to store it? Mark, KB1EKN will recommend the needs and Bob, WA1IDA will purchase them. They may be stored at Tom's house or the Fire Museum.

Other Business:

Holiday Party? A decision was made to hold the Holiday Party at the Stockyard Restaurant in Brighton again this year, Joe will take care of making the arrangements.

The Meeting Adjourned at 2051

BARC Volunteer Exam Sessions

The Boston Amateur Radio Club holds monthly VE sessions on the second Monday of each month. **The October exam will be 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 on page 7

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 CSCEs 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, 781.608.6186 kb1p@arrl.net

BAA Half Marathon Needs Hams

-- Bob Salow, WA1IDA

With nine years of successful events, the Boston Athletic Association Half Marathon continues as a "Boston Tradition." Ham radio has established its community value at times like these. We have been asked again 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.

The park where the start and finish had been located is undergoing a major renovation, so the race starts and finishes at beautiful Franklin Park. Obviously the course must be adjusted. It is for this reason that hams can respond with our personal and communications flexibility. For those who have done this event before, you know the road conditions still call for our best support for the athletes. We need you again, and the Race Director has asked for even more ham help (that's what happens when we are appreciated).

As this is being written, the new course is still being laid out and qualified to international standards. Much of the original route on the "Emerald Necklace" should be used.

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, 10 October 2010

Ham start: 0600

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 handheld 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. 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.

Blue Hill Observatory Fall Open House

- Tom Bertolino, KB1P

On Saturday, 2 October 2010, BARC will participate in the Blue Hill Observatory Fall Open House. We will help them celebrate their 125th anniversary by setting up a HF station/booth. The station will operate

from 0900 to 1500 hrs weather permitting. The plan is to send out a CQ announcing the 125th anniversary of the oldest continuous weather recording observatory in the USA. We will log each contact and send them an eQSL card.

We are looking of volunteers to help setup, man the station, and tear down. We will start to setup at 0800 and hopefully send out our first CQ at around 0900. The station will be manned by minimum of three hams one to log, one to operate the station and one to answer any questions about amateur radio. We will start to tear down at 1500 and we should have everything packed up and ready to go by 1600. You do not have to sign up for the whole day. So if you can only make it for a couple of hours while your family visits the booths let us know when. We will schedule for that time.

This should be a low pressure fun event which offers the opportunity for our Technician Class members to operate under supervision on bands that they are not normally authorized. So if you are interested in participating in this event please contact Tom, KB1P at kb1p@arrl.net or phone 781-608-6186.

FEMA Study Courses Available to All -- ARES Letter, 11 August 2010

FEMA Independent Study courses are now requirements for first responders assisting many agencies during a disaster. NIMS compliance is required in states to ensure that emergency response personnel and other partners are working from one protocol by meeting certain guidelines in planning, exercises, and training.

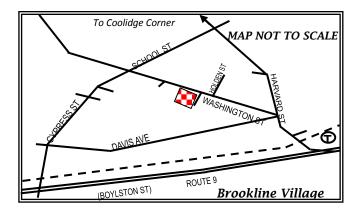
Responders who have previously taken the first ICS courses of IS-100 and IS-700 should also complete on-line courses for IS-701.a, IS-702., IS-703.a, IS-704. This means that anyone who took any ICS course before now should take these four courses. Check these links to see the courses on the FEMA Independent Study page:

http://training.fema.gov/emiweb/is/is701a.asp http://training.fema.gov/EMIWeb/IS/is702.asp http://training.fema.gov/emiweb/is/IS703a.asp http://training.fema.gov/EMIWeb/IS/IS704.asp

Estimates of the time required per course is between two to three hours. However, experience is that most students can review the material and take the on-line exam much quicker than the estimates.

Repeaters: 145.230 (-)CTCSS 88.5 Simplex: 147.420 444.050 (-)CTCSS 110.9 Hz

Direction 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

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 We practice communicating under conditions. 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. For 2010, we have already been tasked with several events, and more are expected. Feel free to contact Tom Bertolino, KB1P, at 781.608.6186 or < kb1p@arrl.net>.

➤ BAA Half Marathon – **10 October** – (Boston)

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/>.

Greater Boston Net Directory

Daily 5:30 pm Eastern Mass/Rhode Island Phone Net (NTS) 3.915 Eastern Mass/Rhode Island CW Net (NTS) Daily 7 and 10 pm 3.658

Eastern Mass 2M Traffic Net (NTS) 145.230 (PL 88.5) Daily 8 pm

Daily 8 pm Slow Speed CW Net 28.160

Heavy Hitters Traffic Net (NTS) MMRA-linked repeaters: Daily 10:00 pm

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

145.230 (PL 88.5) Mon 9 pm **BARC Club Net**

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) 146.640 Wed 9 pm **HHTN Swap Net**

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

Algonquin Amateur Radio Club Net 446.675 (PL 88.5) Sun 8 pm Sun 8:30 pm **NSRA Net (with Newsline)** 145.470

Boston Amateur Radio Club PO Box 15585 Boston MA 02215-0011 Forwarding Information Requested

> First Class Mail Time Sensitive Do Not Delay



BARC September Meeting

Up, Up, In the Air - But What If You Are In Cramped Quarters?

Your antenna is the only way out. Whether you aspire to contacts on HF or your little hand-held with a "rubber duck" (almost) dummy load, you need space for an antenna to do the job. What, you live in a small apartment or have a neighbor who almost breathes down your neck? There are solutions.

These problems have been met by clever hams and you can have the benefits. Attics, window sills, rain gutters, balcony rails, fine wire, trees, radiators and ingenuity – they all play a part in getting you around the world or across the county.

How to get your signal out? Mike Ardai, N1IST, will guide us to some answers on how to make and improve antennas that work in crowded urban locations. Come to the BARC September General meeting on Thursday, 16 September and become a better operator. We meet (usually) on the third Thursday of each month, except July, August and December (that's party time) at the Brookline Police Headquarters, 350 Washington St, Brookline. Meetings begin at 7:00 pm. Talk-in on the Boston repeater, 145.230 MHz (–), CTCSS 88.5 Hz. See the map on page 7.

A quick note: Our October General meeting will be a tour of the Clay Center astronomy, ham radio and other science facilities on (the second) Thursday, 14 October. More detail will be published in the October issue of The SPARC.