



The SPARC

Amateur Radio - Communicating Worldwide for A Century
Newsletter of the Boston Amateur Radio Club
Serving Hams in the Greater Boston Area
February 2013- VOLUME 25, NUMBER 2
www.barc.org - w1bos@arrl.net



Message from the President – Joe Chapman, NV1W

When the British biologist J. B. S. Haldane was asked what he inferred about the Creator from a lifelong study of His works, he is reported to have replied that He has "an inordinate fondness for beetles." Were Haldane to inspect a ham shack he might observe that hams have an inordinate fondness for buttons. Even my own modest desktop station sports so many buttons, knobs, meters, and dials that if I spend my last days in an ICU I shall probably find it strangely familiar.

Of course I want more buttons. One that would be quite helpful would be the "push the appropriate button" button, which would activate whatever filters, noise blankers, clarifiers, and other DSP machinations are required to extract a desired interesting signal from the swamp of unintelligibility.

Some fancy rigs have a zero-beat CW button on them, which I understand automatically tunes in a signal 500 Hz away from the one you're trying to zero-beat. Why stop there? Sometimes tuning in a simple SSB signal will become for me an epic quest; the speaker will go from sounding like Donald Duck to a five-pack-a-day smoker playing the kazoo without any middle range of normalcy. Time for a "zero-beat SSB" button.

Then there's the "lock appropriately" switch. I seem to be incapable of pushing the lock switch on my VHF/UHF boat-anchor, despite the fact that it's right next to the VFO and has a LED next to it so there's zero chance of my leaving it on by accident and then being unable to figure out why nothing seems to work. "Lock appropriately" would know whether it's my hand turning the VFO or a microphone cord being carelessly dragged across it as I reach for something else. An add-on to detect cats and grandchildren would be available.

Spell check on the keyer! Key in "WHAT?" and it sends "SRI OM NO CPY".

It is, of course, entirely possible that one of my rigs already has these features, improbably named, impenetrably documented, and buried deep in a menu item somewhere. But I suspect they're only to be found in those lavishly priced transceivers found on the inside cover of QST.

Best wishes to everyone for good health and good radio in that order, to quote W1JF's signoff on the Monday net. And if you ever find yourself in the hospital and hear someone trying to call CQ on a heart rate monitor, come over and say hello.

Stealth Antennas!

BARC's February General Meeting will feature a talk on stealth antennas by BARC's Walking Wikipedia of All Things Radio, Eric Falkof, K1NUN. Eric has given this talk at other clubs in the area, and it will be a pleasure to welcome him to speak to the home team.

As always, we will try to make decisions to cancel meetings on account of weather one day in advance. In the event of a cancellation, email will be sent to the same address list we use for meeting reminders; inquiries can also be made on the 145.230 Boston repeater or by calling Joe Chapman, NV1W, at 617.267.6349, up to about 6:00 pm on the day of the meeting.

NOTE: The February General meeting date has been changed to Wednesday, 20 February – usual time, usual place.

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BARC Meeting Calendar for 2013 – Linda Blair, NA1I, Vice President

Unless otherwise noted, all meetings will take place at the Brookline Police Headquarters; the map is later in this newsletter. These dates will be published again in the newsletter as needed.

General Meetings

February 20	Wed	7:00 pm	
March 20	Wed	7:00 pm	
April 18	Thu	7:00 pm	<i>at the Clay Center in Brookline</i>
May 16	Thu	7:00 pm	
June 20	Thu	7:00 pm	
September 19	Thu	7:00 pm	
October 17	Thu	7:00 pm	
November 21	Thu	7:00 pm	

VE Sessions

March 16	Sat	10:00 am
May 13	Mon	7:00 pm
July 8	Mon	7:00 pm
September 9	Mon	7:00 pm
November 16	Sat	10:00 am

Business Meetings

March 7	Thu	7:00 pm	<i>at the Cambridgeside Galleria</i>
June 6	Thu	7:00 pm	
September 5	Thu	7:00 pm	
December 5	Thu	7:00 pm	

It's Time for Membership Renewal

The BARC Fiscal year matches the calendar year, so now is the time to renew your membership in the best ham club around. The Executive Committee had decided to make no changes in the dues structure for 2013, so the basic full year membership fee for regular members continues at \$25.00. Junior, senior and family memberships are set accordingly. There is also an adjustment for the latter half of the year.

If you have not yet renewed your membership for 2013, a Membership Information form is included with this issue of the newsletter. Be sure to complete the form when submitting your dues as the data is necessary for statistical purposes and to notify you with important information. To assist the Treasurer with his burden, please return it promptly with your dues.

Please note that completion of the Membership Information form each year assembles not only your identity, but certain statistical data that is important for the orderly operation of our club. The form is the tangible link for the Treasurer and the database to confirm your dues payment.

BARC accepts PayPal. If you want to renew your membership online, just go to <www.barc.org/membership.html>, or click on the membership link on our home page. You can use this to pay your dues or make donations with a credit card (even if you do not have a PayPal account), from your PayPal funds, or from your linked bank account. Our PayPal address is <w1bos@arri.net>. If you appear to have a problem using PayPal, send an email to Mike at <n1list@arri.net>, with a copy to Bob at <w1ida@arri.net>.

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How Do You Choose an Antenna Analyzer? – Dan Romanchik, KB6NU

A reader recently emailed me:

“In the past you told me you started with the Autek RF-1, and later moved to the Palstar ZM-30. I am finally getting around to thinking about purchasing an antenna analyzer, but I am stumped by the choices. In order of increasing purchase price this is what I’ve turned up:

- Autek RF-1 \$139.95
- Autek RF-5 \$229.95
- Rig Expert AA-54 \$340.00
- Palstar ZM-30 \$399.99
- W4RT Electronics MiniVNA \$399.99
- Rig Expert AA-230PRO \$690.00
- Timewave Technology TZ-900S \$899.99

“How does one decide? Where does one go to find out the differences? Other than asking a fellow ham, how does one find out which one is the best antenna analyzer without paying an arm and a leg (unless the feature(s) so purchased are deemed worth the cost)?”

When I replied, I noted that he had actually missed several other good choices:

- Autek VA1 \$199.00
- MFJ 259B \$240.00
- YouKits FG-01 \$250.00
- Comet CAA500 \$450.00

The Autek VA1 is actually the antenna analyzer that I first purchased. The MFJ 259B is arguably the most popular antenna analyzer on the market. MFJ has several other models with different feature sets. The YouKits FG-01 is a very cute, little analyzer with a small graphical display. It is made in China and sold in the U.S. by TenTec.

So, how do you choose just one from this list? Well, I think the first thing that you have to ask yourself is how you’re going to use the analyzer. If all you’re going to do is to check the SWR of your HF dipoles, then buy the Autek RF-1. It’s the least expensive unit, is reasonably accurate, and is small and lightweight, making it easy to use outside where your antennas are located.

If you want to do some more serious frequency analysis, then you should be looking at the W4RT MiniVNA or, if you have more cash, the Timewave TZ-900S. These instruments can help you do a lot more in-depth analysis of your antenna system. The software for the MiniVNA, for example, will easily plot the SWR of a multi-band vertical antenna from 3 to 33 MHz.

Some antenna analyzers do more than just SWR. For example, what sold me first on the Autek VA1 and then on the Palstar was that they also measured reactance. So, you can use the antenna analyzer as an LC meter as well. Palstar also says that you can use the ZM-3 as a low-level signal source. While I have used my Palstar to measure inductance and capacitance, I have yet to use it as a signal source.

Next, you need to consider what bands you’ll be using it on. Many antenna analyzers cover only the HF bands. That’s a bummer if you like operating 6M, or like to experiment with VHF/UHF antennas. A friend of mine bought the Palstar antenna analyzer after talking to the company at Dayton. At the time, they said that they were planning to come out with a model that covered 6M, as well as the HF bands.

Unfortunately, they never did come out with a 6M version, and he was sorely disappointed. He ended up buying a MiniVNA instead. The MiniVNA can be used up to 170 MHz right out of the box, and up to 1.5 GHz with an optional extender.

Asking your fellow hams about the antenna analyzers they have is actually a good way to figure out what’s best for you. If you ask nicely, they might even let you borrow their analyzers or come over and show you how it works on your antennas.

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Reading the reviews on eHam is also a good way to gather information before making a purchase like this. You certainly have to take the reviews there with a grain of salt, but if several reviewers mention a particularly good or particularly bad feature of a product, then it's certainly something worth taking a hard look at.

If you're new to the hobby, starting out small and working your way up might be a good strategy. You could buy one of the less expensive models and get used to how they work, then sell it and make the leap to a more sophisticated unit. The way things are going, you should be able to sell your first antenna analyzer for at least 80% of what you paid for it.

The March 2012 *QST* contains an in-depth review of four analyzers (available online to ARRL members), including the Comet CAA-500, the MFJ-266, the RigExpert AA-54, and the Youkits FG-01. Each analyzer reviewed had various pluses and minuses. Even if the unit you are considering was not reviewed, the article provides a guide to the kinds of questions you should be asking as you go through the selection process.

When he's not analyzing antennas, Dan, KB6NU blogs about Amateur Radio at <kb6nu.com>, writes and publishes the "No-Nonsense" series of Amateur Radio license study guides, and just has fun with Amateur Radio. You can reach him by email at <cwgeek@kb6nu.com>, at @kb6nu on Twitter, or on 40M CW many evenings.

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 can practice for 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 also suitable for hams who are new to helping at such events as well as experienced hams. For 2013, we have already been tasked with several events which will be announced as they are confirmed. Feel free to contact Brett Smith, AB1RL, at 859.466.5915 or <ab1rl@arrl.net>.

- *Multiple Sclerosis Boston Walk – 7 April 2013* – (Boston/Cambridge)
- *BAA 5K and 1 Mile Races – 14 April 2013* – (Boston)
- *Run of the Charles – 28 April 2013* – (Charles River, Needham to Brighton)
- *Multiple Sclerosis Journey of Hope – 18 May 2013* – (Natick)
- *Boston Brain Tumor Bike Rides – 19 May 2013* – (Waltham to Carlisle)
- *BAA 10K Race – 23 June 2013* – (Boston)
- *BAA Half Marathon – 13 October 2013* – (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.

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.

Andy Cowan	ABOYT
Morgan Johnstone	KB1ZFP
Doc Kinne	KE1ML
Pasha Roberts	KB1YDN
Rick Savage	KB1LYJ – upgrade to Extra

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>.

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The banner features a teal background with white text and icons. On the left, it says 'Hands-Only™ CPR' with the Ad Council logo. In the center, there are two circular icons: one with a red smartphone and the number '1', and another with red gloves and the number '2'. To the right of the first icon is the text 'Call 911'. To the right of the second icon is the text 'Push hard and fast in the center of the chest.' Below this is the URL 'Learn more at handsonlycpr.org'. On the far right is the American Heart Association logo with the tagline 'Learn and Live'.

I See the Future

16 Feb	AARC Flea (Marlboro)
20 Feb	BARC General Meeting – Wednesday 7:00 pm ▲
2 Mar	MtTomARA Flea (Feeding Hills)
7 Mar	BARC Business Meeting (Cambridgeside Galleria) ▲
10 Mar	CVRC Flea (Henniker, NH)
16 Mar	BARC VE Session – Saturday 10:00 am ▲
20 Mar	BARC General Meeting ▲
7 Apr	MS Boston Walk (Rp)
7 Apr	FARA Flea (Framingham)
14 Apr	BAA 5K and 1 Mile Races (Rp)
18 Apr	BARC General Meeting – at Clay Center ▲
21 Apr	MIT Flea (Cambridge)
28 Apr	Run of the Charles (Rp)
3-4 May	NEAR Fest (Deerfield, NH)
11 May	SEMARA Flea (Dartmouth)
13 May	BARC VE Session – Monday 7:00 pm
16 May	BARC General Meeting
18 May	MS Journey of Hope Walk
19 May	Boston Brain Tumor Bike Rides (Rp)
19 May	MIT Flea (Cambridge)

▲ **Note change from usual date and/or location**

(Rp) = BARC Repeater likely to be used

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

Got a Story? Why Not Share It? -- Joe Harris, N1QD

We are always looking for articles for the newsletter. I have reserved this space for your articles, tips, how-to's, or other ham related information. Send your submissions to the Editor, Joe, N1QD, at <n1qd@n1qd.org>.

Articles for the October issue must be received by October 6.

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. (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 Joe Harris, N1QD, at 781.844.8684 or <n1qd@n1qd.org>; or Bob Salow at <wa1ida@arrl.net> or 508.650.9440.

Repeater: 145.230 (-) CTCSS 88.5

Simplex: 147.420

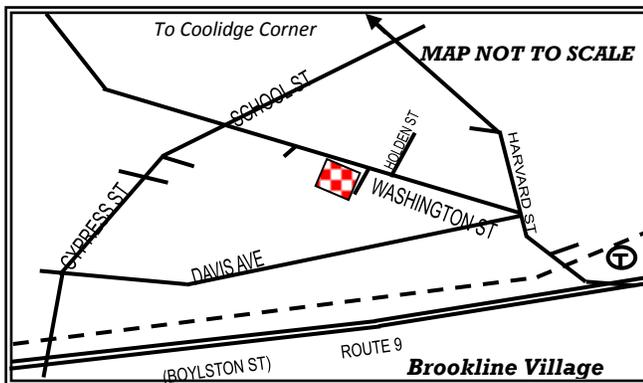
Quarterly Business Meetings -- Bob Salow, WA1IDA

We have Business meetings quarterly. Unless circumstances warrant, BARC Business meetings will be held on the first Thursdays of December, March, June, and September. The next such meeting will be on **7 March 2013** at the Cambridgeside Galleria, in the lower level of the food court. 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 Chapman, NV1W.

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 schedule has been revised to suit the needs and interests of the applicants and examiners. **The 2013 exam session schedule is shown elsewhere in this newsletter issue.** Generally, sessions are held at Brookline Police Headquarters, 350 Washington St in the Community Room (across from the 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 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.

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

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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 the Editor, Joe Harris, at <n1qd@n1qd.org>.

BARC Officers and Staff

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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 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 Newsline)	145.470