



The SPARC

Amateur Radio - Communicating Worldwide for A Century

Newsletter of the Boston Amateur Radio Club
Serving Hams in the Greater Boston Area

April 2022 - VOLUME 34, NUMBER 4

www.barc.org - w1bos@arrl.net



The President's Pronouncements – *Brendan Baldonado, NW1S*



As spring continues to bloom we look forward to the blossoming of activities for this club. We are having a social event, which will likely have taken place before this newsletter comes out and it will be great to connect with everyone who attends. Going forward we hope to see and encourage our members to host their own Radio related events. As a club, we plan to sponsor many Radio outings like the wildly successful QRP BBQ, and our Technician POTA day. If you have an event you'd like to do or see the club participate in, let us know and we can all pitch in to help coordinate and make the event successful. Plan to just go to play radio in a park? Use the Groups.io reflector and invite some BARC-ys along. We hope for a great summer season of good friendship, fun radio and good DX. 73

Message from the Editor – *Doc Kinne, KE1ML / M7RCK*

Usually this little column seems to be filled with my wisdom regarding Amateur Radio in some form. Well, as exciting as that may be for people (Really, Doc? You really think your writing is that good? HA!), let's talk about some ideas regarding my actual job here – the SPARC.

First of all, I want to say that I have been pretty happy at the support the SPARC has received over the last couple of years, including this year. NV1W told me that there were several months when the SPARC deadline would come and he'd be trolling the internet looking for content. To a large extent I've not had to do that. Totally out of the blue we have had a steady column over the last year – SPARC Your Knowledge - that came entirely from its authors. I am very happy to receive it.

Others have filled the SPARC with articles of their own teaching us – and showing us – about both POTA contests and antenna projects. They've even included pictures! I wanted to very much say I appreciate all the support.

I want to try to call upon a bit more support. I'd like to start a column called "Shack Pics." These would involve people sending in pictures of their shacks. Nominally, it would include a small blurb about what is in the picture. They



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can be contemporary or historical. Indeed, historical photos might be quite interesting. How did our shack look when we first got started, and moreover how did *we look*?

One of the good parts of this project is that submissions can be done at any time. Just email them to kinnerc@gmail.com.

Whether we think our shack looks like something out of NASA, or Frankenstein's laboratory, we're all proud of our stations and what they can do. Let's see about showing them off!

BARC General Meeting – Thursday, April 21, 7:30PM

BARC will be holding a General Meeting on Thursday, April 21, at 7:30 p.m. on the Zoom teleconferencing platform. We will be hearing from Barbara Dougan, N1NS, who will present "A Little Bit About Forest Fires."

To join the Zoom meeting above go to:

<https://zoom.us/j/99918732995?pwd=cFhSbmwySUQ2QzQ9eGVUNFNhQ0N4Zz09>

Meeting ID: 999 1873 2995 Password: BARC

In this Issue of The SPARC

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BARC's Online Discussion Group – Joe Harris, N1QD



BARC has an online forum at Groups.io. The group serves as a sounding board for members to post their suggestions and comments, and is intended to foster discussion. The group can also be used to share photographs from club events! Come visit us at: <https://groups.io/g/BostonARC>. You can join, if you're not already there, by sending an email to "BostonARC+subscribe@groups.io."



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SPARC Your Knowledge: The Questions – *Brendan Baldonado, NW1S*

SPARK your knowledge! Each Month we will include three questions from the Technician, General and Extra exams. The correct answers will be in a separate area of the Newsletter and a small explanation as to why. (The ARRL has come up with new questions for the Technician License Class and starting next month we will begin to feature questions from that question pool.)

Technician: What should you do if another operator reports that your station's 2 meter signals were strong just a moment ago, but now they are weak or distorted? [T3A01]

- A) Change the batteries in your radio to a different type
- B) Turn on the CTCSS tone
- C) Ask the other operator to adjust his squelch control
- D) Try moving a few feet or changing the direction of your antenna if possible, as reflections may be causing multi-path distortion

General: In what units is RF feed line loss usually expressed? [G9A06]

- A) Ohms per 1000 feet
- B) Decibels per 1000 feet
- C) Ohms per 100 feet
- D) Decibels per 100 feet

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Extra: What is resonance in an LC or RLC circuit? [E5A02]

- A) The highest frequency that will pass current
- B) The lowest frequency that will pass current
- C) The frequency at which the capacitive reactance equals the inductive reactance
- D) The frequency at which the reactive impedance equals the resistive impedance

The New England QSO Party – Tom Frenaye, K1KI



New England QSO Party

The New England QSO Party on May 7th and 8th is a great time to check out antenna systems and offers a moderately paced opportunity to work new states and countries. You'll find a wide variety of participants, from newcomers to experienced contesters, all interested in making contacts with New England stations.

Our goal is to get every one of the 67 counties in New England on the air so we hope you will encourage your friends to join in the fun! Even if you can join the fun for a couple of hours, we'd appreciate it! Will you be QRV?

Let us know with a message to info@neqp.org

The New England QSO Party is 20 hours long overall, in two sections with a civilized break for sleep on Saturday night. It runs from 4 pm Saturday until 1 am Sunday, then 9 am Sunday until 8 pm Sunday. Operate on CW, SSB and/or digital modes on 80-40-20-15-10 meters. For each QSO you'll give your callsign, a signal report and your county/state. Top scorers can earn a plaque and everyone who sends in a log with 25 or more QSOs will get a certificate. The goal is to work stations anywhere in the world - and their goal is to work New England stations, so you'll be very popular!

Last year we had logs from 947 stations from around the country and world.

The full rules can be seen at <https://neqp.org/rules/>

The full 2021 results were posted last month - <https://neqp.org/2021-new-england-qso-party/>

It's just three weeks until the 2022 NEQP. Please get on and make some QSOs even if you don't want to send in a log!

The BARC Social – Doc Kinne, KE1ML / M7RCK

Sometimes it only takes a message – a message at the right time.

As I write this I'm both watching the Boston Marathon on monitoring W1BOS. My point here is that it is a very *normal* Patriots Day. Temperatures are in the double-digits. The sun is out. There are thousands of people in the streets. You start to get a feeling that we're coming back.

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And that's true of BARC as well. We are moving forward, slowly, with eyeball-QSOs.

Several club member have been active with Parks On The Air activations for the last few months. Earlier this month our President Brendan Baldonado posted a query to see if anyone was interested in an informal get-together dinner somewhere. These are BARC traditions. Years ago we had a monthly brunch meeting at a particular place before the mall around it closed down, so inching back to eyeball-QSOs via meals seemed entirely appropriate.

So on 12 April eight BARC members gathered at Circle Pizza in Brighton. And a good QSO was had by all!

(Picture courtesy of Steve Provost)



SPARC Your Knowledge: The Answers – Joe Chapman, NV1W & Brendan Baldonado, NW1S

Technician:

Multipath distortion is caused by your radio waves bouncing off of different objects such as mountains, and large buildings and then all of the waves arriving at the same location but at slightly different times. Since each wave took different paths and therefore different distances it has taken each wave a different time to get to the receivers radio causing the distortion.

When you have a solid signal at first and then move and suddenly don't have a strong signal you probably just moved to a location where the multipath distortion was greater. Move back to where you were when you had a strong signal or just try moving a few feet, closer to a window, etc. It usually isn't too hard to locate the "sweet spot".

General:

The values for RF feed line losses are usually expressed in dB per 100 ft.

The amount of signal loss through a substance is referred to as its attenuation. The attenuation of various feed lines, such as coaxial cables standardized in units of dB per 100 ft (or metric dB/meter). It is important to note that attenuation is also frequency dependent, and so the dB per 100 feet will often be expressed along with a standard frequency, such as for coax at 750 MHz.

Extra:

Resonance: In an electrical circuit, the condition that exists when the inductive reactance and the capacitive reactance are of equal magnitude, causing electrical energy to oscillate between the magnetic field of the inductor and the electric field of the capacitor.

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Note 1: Resonance occurs because the collapsing magnetic field of the inductor generates an electric current in its windings that charges the capacitor and the discharging capacitor provides an electric current that builds the magnetic field in the inductor, and the process is repeated.

Note 2: At resonance, the series impedance of the two elements is at a minimum and the parallel impedance is a maximum. Resonance is used for tuning and filtering, because resonance occurs at a particular frequency for given values of inductance and capacitance. Resonance can be detrimental to the operation of communications circuits by causing unwanted sustained and transient oscillations that may cause noise, signal distortion, and damage to circuit elements.

Note 3: At resonance the capacitive reactance and the inductive reactance are of equal magnitude.

Club Activity Photos Wanted – Brendan Baldonado, NW1S

I am looking for photos of past and current club activities that people would feel comfortable having posted to social media or having printed in club materials.

Please send any such photos you might have to nw1s.brendan@gmail.com with a small description of the event or activity.

Many thanks!

BARC Meeting Calendar for 2022

We are in the process of looking at and garnering physical meeting space hopefully for the Winter onwards, again, depending on developing conditions. Watch this space, and the BARC Website (<https://barc.org>) for up to the minute details.

Unless otherwise noted, all meetings will take place via Zoom.

General Meetings (* Business/General Meetings)

April 21	2022	Thu	7:30 pm
May 19	2022	Thu	7:30 pm
June 16	2022	Thu	7:30 pm - Elections

VE Sessions

None scheduled at this time.

BARC Net Preamble

The control operator for the BARC Net is Joe, W1JJF. He rarely misses a net, but when he does any ham can take up the position and run the net. To assist you in opening and closing the net The BARC Net Preamble is printed below. Do not be afraid to step up and take the challenge.

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Is there any further business for the repeater before we begin the Boston Amateur Radio Club Net? This is «YOUR CALL». Calling the Boston Amateur Radio Club Net. This is «YOUR CALL», my name is «YOUR NAME» and I am located in «YOUR TOWN». This net meets each Monday evening at 9 pm Eastern Time on the 145.230 Boston repeater, PL 88.5. This net is an informal round table discussion concerning matters of interest to the members of the Boston Amateur Radio Club and the Boston Amateur Radio community in general. When checking into the net, please say, “this is” and drop your carrier to check on doubling. Then give your call sign, name and location. All amateurs are welcome to join the net. Any check-in’s for the Boston Amateur Radio Club Net please call now.

[Compile the list of the check-ins and proceed with the net.]

Is there any further business for the net before I close? Hearing nothing, this is «YOUR CALL» closing tonight’s session of the Boston Amateur Radio Club Net. I would like to thank everyone who participated in the net and those who stood by while I ran the net. The Boston Amateur Radio Club Net will return next Monday evening at 9 pm Eastern Time. This is «YOUR CALL» returning the repeater to general amateur use. 73.

I See the Future

7 May	New England QSO Party
14 May	SPARC Article Deadline
19 May	BARC May Meeting

▲ Note change from usual date and/or location

Before going to any event over the next few months, please confirm that the event will take place and what the hours are.

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.

For an up-to-date calendar of events, including web links, visit <http://www.barc.org/calendar>.

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

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who are appropriate to our readers. For additional information, contact Doc Kinne, KE1ML, at 617.297.2718 or kinnerc@gmail.com.

Two Ways to See Yourself in Print! (well, PDF) – Joe Chapman, NV1W

We are always looking for articles for the newsletter. I have reserved this space for your articles, reviews, tips, how-tos, hints, kinks, photos, schematics, or other ham related information. Photos of you operating or your shack are especially welcome. Send your submissions to the Editor, Doc, KE1ML, at kinnerc@gmail.com. Articles for the September issue must be received by September 6.

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 Doc Kinne, KE1ML, kinnerc@gmail.com

BARC Officers and Staff

President: Brendan Baldonado, NW1S

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Public Information Officer: Geri Duff, KB1ISG

781.749.7664; geriduff52@juno.com

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617.500.4406; na1i@arrl.net

The Boston Amateur Radio Club is a non-commercial association of persons interested in the Amateur Radio Service. The Club is organized for the promotion of interest in Amateur Radio communication and education, for the establishment of emergency communications in the event of disasters or other emergencies, for the advancement of the radio art and the public welfare, for the representation of the radio amateur in legislative and regulatory matters, and for the maintenance of collegiality and a high standard of conduct.

The Club is open to all persons interested in Amateur Radio without regard to race, color, religion, creed, national origin, gender, disability, or sexual preference. Our General and Business meeting locations are handicap accessible. Other meeting and activity locations may be handicap accessible by arrangement.

The Club is an ARRL-affiliated club, and is a member of the New England Spectrum Management Council (NESMC). The Club is also an associate member of the Courage HandiHams system.

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Greater Boston Net Directory

Daily 7 pm	MARI (Mass/Rhode Island CW Net) (NTS)	3.565
Daily 8 pm	Eastern Mass 2M Traffic Net (NTS)	145.230 (PL 88.5 in/100.0 out)
Daily 8 pm	Slow Speed CW Net	28.160
M,T,F,S 8:30PM	Massachusetts Rhode Island Slow Net	3598
First Mon 8:30 pm	EMA Section ARES Net	146.610 and all MMRA links
Mon 8 pm	New England DMR Net	DMR New England Talk Group (TG 3181)
Mon 9 pm	BARC Club Net	145.230 (PL 88.5 in/100.0 out)
Sun Mon Wed Fri 10 pm	Heavy Hitters Traffic Net (NTS)	MMRA-linked repeaters: 146.610, 146.670, 146.715, 146.820, and all 222 and 440 repeaters
Mon-Sat Sat, 5 pm	MA RI Phone Net (NTS)	3.978
Tue 8 pm	Sci-Tech Amateur Radio Society (STARS) Net	446.325 (PL 146.2)
Tue 8 pm	MMRA Club Net	146.610 and all MMRA links
Wed 8 pm	Wellesley Amateur Radio Society Net	147.030; 444.600 (PL 88.5)
Wed 9 pm	Waltham Wranglers Swap Net	146.640 (PL 136.5)
Thu 8 pm	Wellesley Amateur Radio Society Net	28.3MHz
Sat 9 am	Northeast SATERN Net	7.265MHz
Sun 9:30 am	Yankee SSB Net	50.275MHz
Sun 8 pm	Algonquin Amateur Radio Club Net	446.675 (PL 88.5)
Sun 8:30 pm	NSRA Net (with Newslines)	145.470 (PL 136.5)
Sun 9 pm	CAARAnet	145.130 (PL 107.2)

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