

Amateur Radio - Communicating Worldwide for A Century

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

February 2022 - VOLUME 34, NUMBER 2 www.barc.org - w1bos@arrl.net



### The President's Pronouncements - Brendan Baldonado, NW1S



These past few months have provided some challenging weather, a few SKYWARN activations, and even an ARES Standby announcement. These events provide us, the Ham Radio community, a real opportunity to show the local government and the public where Amateur Radio can really shine. Be sure to check your radio equipment and batteries to be ready for the next situation. This is a great segue into introducing our new Public Service Chair, Ethan Hansen, KC1OIP. In February we resume normal monthly meetings and I personally look forward to seeing and speaking with all of you again.

## Message from the Editor - Doc Kinne, KE1ML / M7RCK

This month we have several articles from a variety of sources and people. Most of us have heard the phrase, "It takes a village." Making up this issue of the SPARC, I came up with a new variant (Oh, *no! Anything* but a new variant!!): "A village makes it better!" And it does. You are the village. Thank you!

Just because I can, I also would like to welcome Ethan on board as new Club Public Service Chair. Honestly, during the Johnstone Administration, it wasn't a priority because, well, we didn't have much public - *anything* - going on. That we do now is another nudge back to a world we may all start recognizing again.



Radio-wise, again we proved our worth during the January 2022 Blizzard. Kudos to all of us that helped and participated. If you're lucky - very lucky - you may actually know exactly how your participation helped or even saved a life. The vast majority of the time, we don't know. But my experience tells me that we do have a positive impact - sometimes very positive - even if we never find out.

Keep going, folks!

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## BARC General Meeting – Thursday, February 17, 7:30PM

BARC will be holding a General Meeting on Thursday, Feb 17th, at 7:30 p.m. on the Zoom teleconferencing platform. We will be hearing from Christopher Kelly, W1GBH, the Broadcasting Engineer for WGBH-FM! He'll be discussing his job and responsibilities for several radio stations.

To join the Zoom meeting above go to:

https://zoom.us/j/99918732995?pwd=cFhSbmwySUQ2Qi90eGVUNFNhQ0N4Zz09

**N** Meeting ID: **999 1873 2995** Password: BARC

### In this Issue of The SPARC

- KC1OIP Becomes New Club Public Service Chair
- SPARC Your Knowledge: The Questions
- Experiments with the Lowly Ham Stick
- New England Regional News
- Big News! The <u>Flea@MIT</u> Returns!
- MS Walk Boston 3 April Requests Help
- SPARC Your Knowledge: The Answers

## 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: <a href="https://groups.io/g/BostonARC">https://groups.io/g/BostonARC</a>. You can join, if you're not already there, by sending an email to "BostonARC+subscribe@groups.io.





### KC10IP Becomes New Club Public Service Chair - Brendan Baldonado, NW1S

Ethan is a relatively new ham, having gotten his Technician license in early January 2021. As someone whose antenna setup is limited by apartment living, Ethan has found that public service activities are a great way to make contacts, both on the air and in person. In addition to participating in NTS and SKYWARN he is also interested in POTA and is working on getting a QRP HF rig together to activate some parks, especially on the digital modes.

Professionally, Ethan works in information security and when he has free time during the day tries to make DMR contacts with the radio he has at his desk. In his free time he runs multiple Broadcastify feeds, enjoys medium format film photography and video games. During the warmer months he's easy to spot with his multiple tattoos and an ever present carabiner, though the hat with his callsign on it is a dead give away. He's looking forward to putting voices to faces at public service events and hopefully more POTA meetups!

We are excited to have him join the team as work to better facilitate the connecting Hams that want to volunteer with Public Service Events in the Eastern Massachusetts area.

Welcome Ethan!

### SPARC Your Knowledge: The Questions - Brendan Baldonado, NW1S

SPARC your knowledge! Each month we will include three questions from the Technician, General and Amateur Extra exams. The correct answers will be in a separate area of the Newsletter with a short explanation as to why.

# Technician: Which of the following is a purpose of the Amateur Radio Service as stated in the FCC rules and regulations? [T1A01]

- A) Providing personal radio communications for as many citizens as possible
- B) Providing communications for international non-profit organizations
- C) Advancing skills in the technical and communication phases of the radio art
- D) All of these choices are correct

### General: Which of the following is a reason not to use wire-wound resistors in an RF circuit? [G6A06]

A) The resistor's tolerance value would not be adequate for such a circuit

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- B) The resistor's inductance could make circuit performance unpredictable
- C) The resistor could overheat
- D) The resistor's internal capacitance would detune the circuit

Amateur Extra: What might help to restore contact when DX signals become too weak to copy across an entire HF band a few hours after sunset? [E3A06]

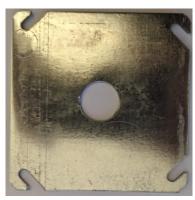
- A) Switch to a higher frequency HF band
- B) Switch to a lower frequency HF band
- C) Wait 90 minutes or so for the signal degradation to pass
- D) Wait 24 hours before attempting another communication on the band

## Experiments with the Lowly Ham Stick- Gregory Kenley, KC1NRJ

Hello from Ham Radio South - Richmond, VA - at least until Boston warms up again.

In my dual quest for both effective antennas and speed of deployment, I decided to experiment with the Ham Stick.

Most of the time when BARC members talk about their Ham Sticks they are using it via a Mag Mount on their Car roof. I started with a 20m MFJ 1620T. My first goal was to try it out via a Mag Mount, then with a C-Clamp and then the JawClamp. But then I saw a YouTube video featuring this switch face plate from Home Depot that I thought was interesting and dirt simple.



I built this simple setup and assembled the base for the HamStick in a friend's back yard.



I used four 4" screws, a 3/8"-to-239 Stud, and a nice right angle adapter to make this work. I ended up making two sets of radials to test it out.

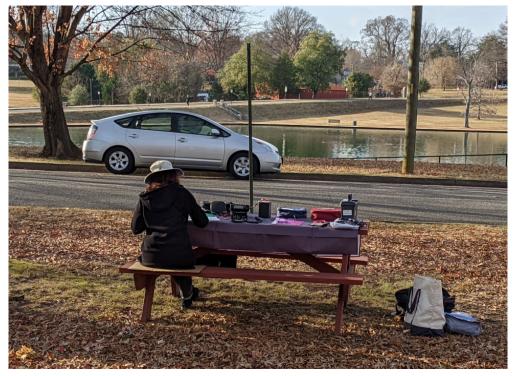
BTW - there are 3 unknowns currently in the Scientific World - Dark Energy, Dark Matter and Ham Radio Radials. I constructed one set of 12 1' radials using 18 AWG Home Depot speaker wire, creating 12 short radials. I then calculated and made the standard 16', 5" radials - a set of 4 single wires.



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With the work done, I took this setup to my favorite Ham Spot in Richmond - the (Admiral) Byrd Park.

To my surprise just pushing in the modified Home Depot faceplate base into the ground (quite moist) provided a usable SWR with no radials. It gave me an SWR of about 2:1 with just a quick push into the ground and then screwing in the Ham Stick.

Adding the 4 groups of three 1' radials brought it down to about 1.6-1.7:1 easily. To my surprise when I switched to the calculated 4 16' 5"

radials, the SWR went to about 10:1!

Now I know why there are 10,000 YouTube videos on Radials. They should be called "Dark Radials"....

I am definitely going to check out what I can do with the Wolf River Coils with regards to shorter radials - but more of them

The low, low noise floor on my TX-500 when I connected it to the Ham Stick was heaven. At my Condo here I constantly see about 5 to 6 for a noise level. At Byrd Park I am seeing 0 to 1. I easily heard POTAs going on around me.

While the weather is nice I will try to test out the full circle of HamStick deployments: the Jaw Claw, a Tripod and finally the roof of the Prius. I wish the HamStick was Telescopic, but you can't always get what you want.

Look forward to a good Boston POTA season. Hurry up and warm up.

**New England Regional News** – *from Fred C Kemmerer, AB10C*Phil Temples K9HI and I are planning to hold a New England Division Town Hall Meeting on Wednesday, February 16th at 7 pm EST. The purpose of the meeting will be to provide you with an ARRL update, get your thoughts on what we should be focusing on, and answer any questions that you might have about the ARRL and what we are doing on behalf of ARRL members here in New England. We will also be introducing our recently appointed Assistant Directors.

We are planning to spend a good deal of our time together to answer your questions. If you'd like to send us a question in advance, you can do so via an email <a href="mailto:toabloc@arrl.org">toabloc@arrl.org</a> or you can just plan to ask your questions during the Town Hall Meeting.

We will hold our Town Hall Meeting via a Zoom Webinar. You can get your personal link to join the Town Hall Meeting via the following link (paste the link in your browser to register) –



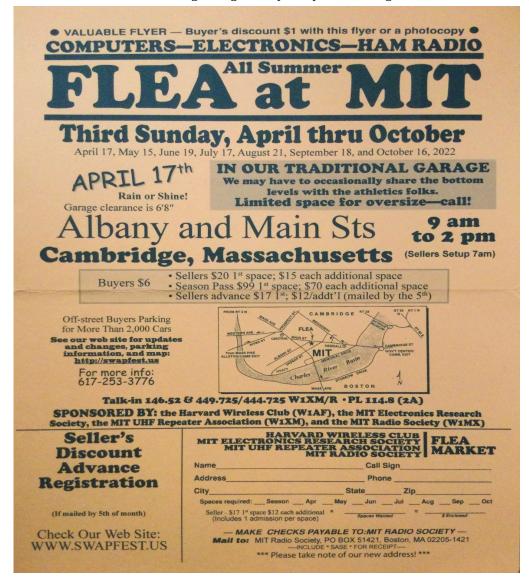


We hope to see you on February 16th!

### Big News! The Flea @ MIT Returns! - Doc Kinne, KE1ML / M7RCK

The Flea@MIT has a special place in my heart. It was the first "hamfest" that KE1ML ever went to when I moved to MA from Central NY. At one of the last before COVID took them off the air, I was reacquainted with Linda Blair, NA1I, and thereby came back into the BARC fold. Between MIT calling off the Flea due to COVID, and then Steve Finberg, W1GSL, the Flea's long, longtime mentor becoming a Silent Key recently, I though that that was it: time had taken another cultural grounding rod from us.

I can't say this often, but sometimes I love being wrong. Feast your eyes on this sign and its dates. Yea, Baby! 2022!



## MS Walk Boston April 3 Request for Help – Rick Savage, KB1LYJ via Ethan Hansen, KC10IP

After a 2-year hiatus MS Walk Boston is back. Throughout the year, the National MS Society organizes walks to raise funds for multiple sclerosis research and patient advocacy. The Boston walk has long relied on hams to help ensure everyone's safety.

This year's MS Walk Boston is on Sunday, April 3rd. It starts and ends at Boston University's Nickerson Field in Boston, and runs along Commonwealth Ave and Boston University. Volunteers will check in at 8:00 AM, and stay until the early afternoon.

To volunteer, register online at https://nmss.galaxydigital.com/need/detail/?need\_id=659389

I'll be organizing the hams for this event. In addition to registering, please respond me with the following information:

- \* Your call sign, full name, and name you prefer on the air
- \* Contact information: your e-mail address, and phone numbers where you can be reached (cell, home, office)
- \* Your shirt size
- \* The transmit band(s) of your radio(s), and other equipment you could bring
- \* Do you have any needs or requests we should consider when making your assignment?

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

### Technician: C

If you look at the text of the FCC rules pertaining to amateur radio (which you can find at <a href="http://www.arrl.org/part-97-text">http://www.arrl.org/part-97-text</a>) you'll see that it begins with the reasons the amateur radio service is allowed to exist. They include emergency communications, advancing radio technology, advancing skills in the technical and communication phase of radio art, maintaining a pool of trained operators, technicians, and electronics experts, and finally enhancing international goodwill.

#### General: B

There are many different ways to make a resistor, which you can read about in the Wikipedia article "Resistor". Wirewound resistors are relatively uncommon, and are often used in applications that involve high termperatures. They're made by wrapping a coil of wire around a core, and if that sounds suspiciously like an inductor, that's because it *is* like an inductor.

Some wire-wound resistors are specially wound to minimize inductance, and may even be labeled "non-inductive", but the answer the test is looking for is, in an RF circuit, **the resistor's inductance could make circuit performance unpredictable.** 

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#### Amateur Extra: B

Well, when band conditions start to go south after sunset, I (NV1W) go make dinner. However, that isn't one of the choices.

The maximum usable frequency (MUF), which is the highest frequency at which skywave (or "skip") propagation occurs, varies with the time of the day, the time of the year, and location. Because solar radiation has a significant effect on the ionosphere, MUF is generally higher during the daylight hours. So, if you're on a high frequency band and signals start to go away as it gets darker outside, **switch to a lower frequency HF band.** If you're already on a low frequency HF band, go make dinner!

Quick Tip: "The lower the sun, the lower the frequency."

## **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 (<a href="https://barc.org">https://barc.org</a>) for up to the minute details.

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

### **General Meetings (\* Business/General Meetings)**

Feb 17	2022	Thu	7:30 pm
March 17*	2022	Thu	7:30 pm
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.

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.]

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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

14-18 February
 10-20 February
 5-6 March
 ARRL School Club Roundup
 International DX – CW Contest
 International DX = Phone Contest

12 March SPARC Article Deadline 17 March BARC March 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 <a href="http://www.barc.org/calendar">http://www.barc.org/calendar</a>.

### **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:

 $1 \text{ col} \times 2 \text{ in. (business card)}$  \$15 per issue

 $1 \text{ col} \times 2 \text{ in. (business card)}$  \$75 per 6 consecutive months  $1 \text{ col} \times 2 \text{ in. (business card)}$  \$125 per 12 consecutive months

 $1 \text{ col} \times 4 \text{ in.} (\frac{1}{2} \text{ column})$  \$30 per issue  $1 \text{ col} \times 9.5 \text{ in.} (\text{full column})$  \$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 Doc Kinne, KE1ML, at 617.297.2718 or <a href="mailto:kinnerc@gmail.com">kinnerc@gmail.com</a>.

## 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

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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.co

### **BARC Officers and Staff**

President: Brendan Baldonado, NW1S

brendan.baldonado@gmail.com

Vice President: Joe Harris, N1QD

n1qd@n1qd.org

Secretary: Joe Chapman, NV1W

nv1w@arrl.net

Treasurer: Jim Clogher, N1ICN,

n1icn@arrl.net

kinnerc@gmail.com

Volunteer Exams:

Jim Clogher, N1ICN, n1icn@arrl.net Linda Blair, NA1I, na1i@arrl.net

Public Service Coordinator: Ethan Hansen, KC1OIP

Public Information Officer: Geri Duff, KB1ISG

781.749.7664; geriduff52@juno.com

Membership Services: Linda Blair, NA1I

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, SPARC Newsletter Editor: Doc Kinne, KE1ML / M7RCK 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

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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 Newsline)	145.470 (PL 136.5)
Sun 9 pm	CAARAnet	145.130 (PL 107.2)