

Full Quieting

The Official Journal of The Bellbrook Amateur Radio Club



January 2026 — Issue 53

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From the Editor

Happy New Year! 2025 was quite an eventful year, and looking for 2026 to be just as eventful, in a good way.

First off, **BARC has a New Year's Day POTA Event at John Bryan State Park.** I'm highlighting this because if you read this newsletter as soon as you get it, you will still have time to participate. You can watch, or join POTA, make some contacts, and enter them for points! If you're not one of those who are already bringing radios out there, just bring a notepad and an accurate watch and jot down your contacts on paper. I hope to see you there, and I equally hope the weather cooperates!

Winter Field Day is near the end of the month, read up on it and come out if you are able. This is a popular event.

With all this talk of POTA, I wrote an article on how to leverage GridTracker to increase your effectiveness in hunting FT-8 POTA contacts. This related to POTA hunting, which is something you can do from the comfort of your own home, which is not to be taken lightly in January!

We have a couple of great articles that our Tech Night Coordinator, Bob, AC8ZU, has written on ARRL's DX Marathon and Meshtastic. The timing is perfect for the DX Marathon because it starts on January 1st and runs all year. I'm looking forward to learning about Meshtastic, Internet of Things (IoT), and what amateur radio is doing in this regard.

This is a time of year where we are looking for inputs from you all for what you would like to see in 2026 programs. Please take the time to reply honestly with what you would like to see. We will incorporate as much as we can. From my perspective as *Full Quieting* Editor, I would like your opinions too. With the technically diverse group we have, chances are there is someone in the club that has the answers you are looking for.

73, Ray Hitt, [N8VMX](#)
Full Quieting Editor



2024 BARC Officers and Directors

President: Geoff Kline, [KI5VNB](#)
Vice President: Eric Bramini, [KC8OPY](#)
Secretary: Jim Gifford, [N8KET](#)
Treasurer: Thomas McClory [KE8FWZ](#)
Senior Director: Don Macon, [KE8WVJ](#)
Junior Director: Glenn Rodgers, [W8IO](#)

2024 Coordinators

Antennas: Ray Hitt, [N8VMX](#)
Clubhouse: Jim Lusk, [KC8EFD](#)
Comm Center: John Westerkamp, [W8LRJ](#)
Contesting: Ken Gunton, [W8ASA](#)
Education: Paul Sharp, [WS8R](#)
Emergency Preparedness: Jim Lusk, [KC8EFD](#)
Field Day: Eric Bramini, [KC8OPY](#)
Full Quieting Editor: Ray Hitt, [N8VMX](#)
Hospitality & Librarian: Natinka Siwecki, [KD8NUA](#)
IT: John Westerkamp, [W8LRJ](#)
Lunch Bunch: Jim Totten, [WA8HUB](#)
Net: Paul Sharp, [WS8R](#)
Public Service: Don Parker, [KB8PSL](#)
QSLs: vacant
Repeater: Russ Roysden, [N8NPT](#)
Tech Night: Bob French, [AC8ZU](#)
Webmaster: Doug Hayward, [K8DRH](#)

BARC Net: Every Sunday, 8 PM Local

147.045 (+) (118.8 PL enc and dec) [Alt = 443.675]

Directions to BARC Clubhouse and Radio Room

St. Pierre Education Center
3757 Upper Bellbrook Rd
Bellbrook, OH 45305 [Map Link](#)
Park in front of building, enter in front-right door.
Conference room: Take first hallway to the left, conference room is on the right. **Radio Room:** Straight down hallway, left turn into gym. Door on left.

Member Interviews

BARC wants to hear from you!

Whether you're a long-time BARC member or a brand new one, young or old, please tell us about yourself. Here are some simple guidelines, although you're free to use whatever format you're comfortable with.

This page is all about you. It's your chance to let BARC members to get to know you better.

Here's are a few sample questions to help get you started, but you can write whatever you want.

Please send us some pictures of anything you want BARC to see (you, station, antennas, pets, family, anything)

- When you were first licensed?
- How did you learn about Ham Radio (HR)?
- Why did you become a Ham?
- What are your current HR interests?
- What are you most passionate about regarding HR?
- Tell us about your stations (past, present, and future)
- What was the most exciting thing that happened to you in HR?
- What do you do for a living?
- Would you like to say something about your family?
- Do you have other hobbies or interests?
- Any other comments for BARC?



President's Corner

QST...QST...QST... Out with the old and in with the new! The new clubhouse is officially open and ready for use. While there is still some additional work to be done, the most important thing is that it is functional and operational. Members are welcome to use the clubhouse on weekdays after 5:00pm and anytime on the weekends. The radios are set up and ready to go, and once again that familiar and delightful BARC popcorn smell floats through the air.

Speaking of new things, keep an eye out for the new 60-meter band rules recently released by the FCC. These updated rules for use of 5351.5 to 5366.5 kHz will become effective 30 days after publication in the Federal Register. Publication is expected in January 2026. If you enjoy operating on 60 meters, this is something to watch.

January is shaping up to be a busy and exciting month, with a little something for everyone on the air. Kicking things off is the BARC New Year's Day POTA event at John Bryan State Park, followed by the ARRL RTTY Roundup on January 3 and 4 and ARRL Kids Day on January 3. Kids Day is a great opportunity to share your love of radio with a young person. The North American QSO Party CW takes place on January 10 and 11, followed by NAQP SSB on January 17 and 18. That same weekend also brings the ARRL VHF Contest, running from January 17 through 19. Later in the month we will see the CQ 160 Meter CW Contest from January 23 through 25 and Winter Field Day on January 24 and 25. Movie Night also returns this month on January 22 and will be held in the new clubhouse for the first time.

As we continue to get settled into our new digs, I want to sincerely thank everyone who helped make the move and set up of the new clubhouse such a success. The amount of time, effort, and teamwork that went into getting us operational was impressive and truly appreciated. Now that we are up and running, if you have interests or ideas you would like to pursue, or improvements you would like to suggest, please bring them to a planning meeting and help shape what comes next for the club.

Personally, I am very interested in getting more involved with the schools. On my way out of the clubhouse one evening, I bumped into the preschool coordinator in the parking lot. She mentioned that she is still interested in working with us in 2026 to put on a Santa event for preschoolers that would include an introduction to radio. If this is something that interests you, please reach out to me and we can start forming a small committee to plan it.

Also, if you or someone you know would like to give a presentation at a membership meeting, please let Eric (KC8OPY) know. If you have ideas for topics you would like to see presented, those suggestions are always welcome as well.

I hope you have a fun and active month on the air and do a better job sticking to your New Year's resolutions than I do.

73,

Geoff Kline, KI5VNB

President, Bellbrook Amateur Radio Club



What's Up BARC?

What's Up BARC?

Ray Hitt, [N8VMX](#)

Announcements regarding any member news including: new equipment, antennas, grandchildren, children, pets, operating news, etc.



Welcome New Members!

Juanita Rowley, KF8EIIY, Technician

William Ward, KE5LPX, Extra

BARC Clubhouse Inaugural Event, the ARRL 10-meter Contest

Well, it took some time, but the BARC clubhouse (radio room) has been completed and cleaned up for use. You will see “radio room” used in the BARC Calendar to distinguish this room from the “conference room” we use for general meetings and other larger gatherings.

Here’s a picture of how the radio room looks. We made some small changes from the drawings once we actually got tables and shelving in place, but in general, things map pretty well to our plans from the spring/summer.

You’ll notice we have three stations instead of the four we had at our old clubhouse. The 4th station will be assembled into a “go kit” which can be taken into the field or set on one of the empty tables in the event we ever need it for a large scale event.



On Saturday, Dec 13th, we energized our stations during the ARRL 10-meter contest. At this time, with only two HF antennas up, we had two stations, one CW, the other voice. We did find out that interference is a problem, our bandpass filters are good, but not that good!

Also, the popcorn machine was put to use, that officially breaks in the radio room! Thanks to all who helped put it together. We’ve come a long way in the past few months!

More pictures on next page...



What's Up BARC? (continued)

BARC Clubhouse Inaugural Event, the ARRL 10-meter Contest (continued)



Al, KB8PJW's daughter Amy and grandson Flynn operating during the 10-meter contest. Hope you made some good contacts!

First test batch of our famous BARC popcorn at our new location!



Geoff and Glenn operating as POTA hunters!



What's Up BARC? (continued)

A BARC Event—New Year's Day Parks on the Air (POTA) at John Bryan State Park

By Jim Gifford, N8KET

Several of us are going to start the new year with a Parks on the Air (POTA) adventure. On January 1, 2026, at about 9am, we will gather at John Bryan State Park, 3790 State Route 370, Yellow Springs, OH 45387, located halfway between Yellow Springs and Clifton. [Google Map link](#)

We plan to spread out to prevent any RF interference with each other. The last time we activated a POTA there we transmitted on four bands. One of us will be on 10M to allow anyone with a Tech license to activate the park. There is a special POTA award for activating during the first week of the year.

By the time you read this, a couple emails will have been transmitted to the club. Details will have been included in those emails. We hope you can join in the fun.

Gear Up, Hams! BARC's Winter Field Day 2026 Adventure Awaits!

By Eric Bramini, KC8OPY

Picture this: Crisp Ohio air nipping at your cheeks, antennas dancing in the winter breeze, and your rig lighting up the bands with QSOs from coast to coast. That's the electric vibe of Winter Field Day (WFD)—the Winter Field Day Association's adrenaline-pumping bash that turns frozen fields into radio playgrounds! Running January 24–25, 2026 (1600 UTC Saturday to 2159 UTC Sunday), it's all about flexing those emergency skills, ditching the grid for batteries and generators, and racking up contacts on HF, VHF, UHF, and beyond. It's not just operating—it's a frosty fiesta of fun, grit, and glory. Who's ready to thaw the airwaves?



BARC will be operating at the [Hills and Dales MetroPark](#) in the [Twin Oaks shelter](#). We will be operating as a club from that shelter on Jan 24th from 10am to 4pm. We'll have a roaring fire going in the fireplace the entire time. The club will provide hotdogs, water, and soda. Members are encouraged to bring something to share such as chips, snacks, cookies, etc.



The club will have 4 HF stations setup on the 40M, 20M, 15M, and 10M bands and will be operating off-grid (batteries and generator). All are welcome to participate and get on the radios; even those without a license. There will be plenty of mentors and friendly faces. Please join us for food, fun, and friendship. We promise, it's all BARC and no bite!



What's Up BARC? (continued)

FCC Implementing Changes to 60-meter Amateur Radio Frequency Allocation

On December 9, 2025, the FCC released **Report and Order [FCC-25-60](#)** (ET Docket No. 23-120), implementing changes to the amateur radio allocation in the 60-meter (5 MHz) band. This adopts the international secondary amateur allocation from the 2015 World Radiocommunication Conference (WRC-15).

Key Changes

- **New contiguous band segment** — Amateur radio operators gain secondary access to **5351.5 - 5366.5 kHz** (a 15 kHz-wide band).
 - Maximum power: **9.15 W effective radiated power (ERP)**, equivalent to 15 W effective isotropic radiated power (EIRP) internationally.
 - Maximum emission bandwidth: **2.8 kHz**.
 - All emission types authorized for the amateur service in this range (no longer limited to specific modes like on the old channels).
 - This segment subsumes the former discrete channel centered at 5358.5 kHz (previously one of five channels allowing up to 100 W ERP), effectively replacing it with the lower-power band rules.
- **Retention of four existing discrete channels** — The FCC continues secondary amateur access to the four channels outside the new band, with no changes to their rules:
 - 5332 kHz
 - 5348 kHz
 - 5373 kHz
 - 5405 kHz
 - These retain the prior limits: up to **100 W peak envelope power (PEP) ERP**, primarily upper sideband (USB) voice and certain data modes.

Amateur operations remain secondary in the entire band, meaning operators must avoid interfering with primary federal users (e.g., government fixed and mobile services). The FCC emphasized protecting these primary operations as a top priority.

Effective Date

The new rules take effect **30 days after publication in the Federal Register** (publication date not yet confirmed as of late December 2025, so check the Federal Register for the exact start).

Background

This resolves a proceeding stemming from a 2023 Notice of Proposed Rulemaking and earlier ARRL petitions. The ARRL advocated for retaining the higher-power channels alongside the new allocation, which the FCC granted. A related 2017 ARRL petition (RM-11785) for potential power increases in the new segment remains open for future consideration.



What's Up BARC? (continued)

BARC Swag from Emerio KE8JNQ

In the April 2025 planning meeting, the club officers approved Emerio KE8JNQ to offer a variety of items for sale all in Blue BARC Color. These items complement the other items being offered for sale from other vendors. Notice that the logo is a larger size so other Amateur Radio Operators can see it better. All BARC members get this discount price. If you need more information or would like to order, contact Emerio KE8JNQ. His telephone number is 937-546-9477.



BARC Swag from Parrot Promo Essentials

We have polo shirts, sweat shirts, hoodies, t-shirts, ball caps, and softshell jackets from Parrot Promo Essentials. You can order them directly from our website, at <https://bellbrookarc.org/wp/order-barc-gear/>. These shirts are a little more expensive than those offered by Emerio, but they match the ones you've seen many of us wearing already.

BARC Mugs from Chris Hanselman, AD8OM

For those of you wanting 20 oz insulated BARC mugs, please contact Chris Hanselman, AD8OM, at deeremt@gmail.com. They are offered in Blue with silver print and Black with copper print. They will keep cold things cold and hot things hot for hours. I use mine almost every day and love it!



Officer, Director, and Coordinator Inputs

Treasurer: John Westerkamp, [W8LRJ](#): Our relocation efforts have been completed. We had over \$8000 in upgrades and new purchases. Thanks to the generosity of several BARC members, we raised over \$4000 to offset those expenses. Our overall balance has taken a slight hit, but incoming dues are keeping us strong financially.

Dues are \$15 per person or \$18 per family. You can use PayPal by sending your payment to treasurer@bellbrookarc.org using Friends and Family. You can also send a check made out to BARC to P.O. Box 73, Bellbrook, OH 45305. Or you can bring a check or cash to any BARC Membership meeting.

Repeater: John Westerkamp, [W8LRJ](#): The repeater site services appear to be working well with the new cellular hotspot. We are looking into ways to improve the connectivity (speed and reliability). Be sure to let me know if you find any issues.

Website: John Westerkamp, [W8LRJ](#): The ARRL 10-Meter Contest was a fun time as we were able to show off the new clubhouse to our members who braved the snowy weather to join us. We were active as W8DGN on voice and CW with several different operators, including a young operator who is working on his General license. Watch the newsletter and website for information on future contests in the clubhouse including the North American QSO Party in January!

Communication Center: John Westerkamp, [W8LRJ](#): The hexbeam antenna will wait until spring for installation, but we now have three stations set up in the new clubhouse along with the patch panel and HamClock TV. Each station is equipped with an Icom 7300 radio for HF and a mobile radio for VHF/UHF communications. We will have the BARC repeater on in the clubhouse during most events so be sure to use the repeater as a talk-in if you need directions or other information.

BARC Net Manager: Paul Sharp, [WS8R](#): Every Sunday at 8:00 PM you can listen to and participate in the exciting BARC Net, on 147.045. For the 4 weeks in December 2025 there were approximately 62 check-ins lasting 180 exciting and informative minutes. Topics ranges from Open Mike, Parks on the Air, plans for Thanksgiving and Christmas, lots of discussion about the new club house, and what extreme weather have you experienced.

Our faithful Net Controllers are, Larry Darner KD8RER, Connie Gifford W8CSG, Jim Gifford N8KET, Tink Siwecki KD8NUA, Eric Bramini, KC8OPY, and Paul Sharp WS8R. Joe Menchaca, KE8UUA as a trusty alternate.

Antenna Coordinator: Ray Hitt, [N8VMX](#): No antenna installations planned for January. Awaiting better weather to install the hexbeam. The fiberglass spreaders for the hexbeam have been primed but still need to be painted flat black. I will paint them once the weather is 60° F for two days. I plan on documenting the performance of our installed antennas as measured at the radio coax connector, by performing SWR sweeps. If anyone has documented SWR already, please get in touch with me, otherwise, I can capture that data with a NanoVNA/computer combination.



BARC January 2026 Event Calendar

Thu January 1, 2026

POTA New Year's EventWhere: John Bryan State Park

Sun January 4, 2026

8pm Weekly Net Where: 147.045+ (118.8 Hz tone)

Thu January 8, 2026

7pm Planning Meeting..... Where: BARC Clubhouse

Sun January 11, 2026

8pm Weekly Net Where: 147.045+ (118.8 Hz tone)

Tue January 13, 2026

11:15am Lunch Bunch.....Where: Culp's Cafeteria

Thu January 15, 2026

7pm Membership Meeting Where: BARC Clubhouse

Sun January 18, 2026

8pm Weekly Net Where: 147.045+ (118.8 Hz tone)

Thu January 22, 2026

7pm Dessert & Movie Night..... Where: BARC Clubhouse

Sat January 24, 2026

10am Winter Field DayWhere: Twin Oak Shelter

Sun January 25, 2026

8pm Weekly Net Where: 147.045+ (118.8 Hz tone)

Tue January 27, 2026

11:15am Lunch Bunch.....Where: City Barbecue

Wed January 28, 2026

7pm Tech Night Where: BARC Clubhouse



BARC Movie and Dessert Night

BARC Movie & Dessert Night 2026 Season Begins!

Can you believe it? BARC Movie & Dessert night is returning on **Thursday January 22, 2026** for a full season run through October 22, 2026!

Last year we flew to the moon, went sailing, saw a dinosaur or two, twisted the night away and went on a mission that was impossible. In 2026 we are planning a good selection of movies and even tastier desserts, so we hope you will join us for a movie or two or maybe all of them!

<u>Date</u>	<u>Title</u>	<u>Genre</u>	<u>Actors</u>
January 22, 2026	Groundhog Day	Comedy	Bill Murray
February 26, 2026	Aqua Man & the Lost Kingdom	Adventure	Jason Momoa
March 26, 2026			
April 23, 2026	Rental Family	Comedy/Drama	Brendan Fraser
May 21, 2026			
June 25, 2026	Now You See Me/Now You Don't	Action	Woody Harrelson
July 23, 2026			
August 27, 2026			
September 24, 2026			
October 22, 2026			

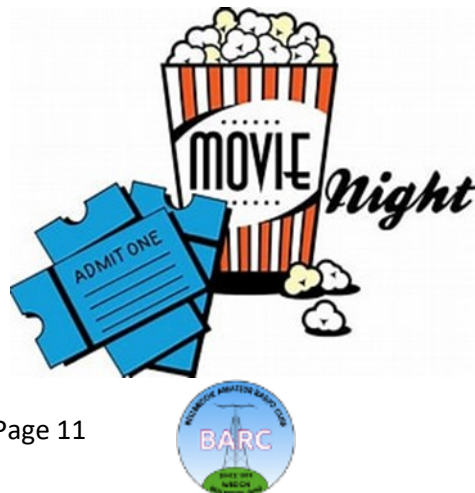
Everyone has been working really hard to get the new BARC Clubhouse up and running. We're hoping this year we will be able to hold movie night in the clubhouse and start serving our Famous BARC Popcorn again! If not we have the large meeting room as a backup.

BARC movie nights are held on the **Fourth Thursday** of each month **January** through **October** at **7:00 PM in the BARC Clubhouse**. We take November and December off for the holidays. At each movie night we pop up, *fresh*, BARC's famous popcorn and you never know what we will come up with for dessert!

If you have suggestions for the 6 movies for March, May, and July through October, please send an e-mail to [me](#) or the [editor](#).

We'll see you in 2026 at the Movies!

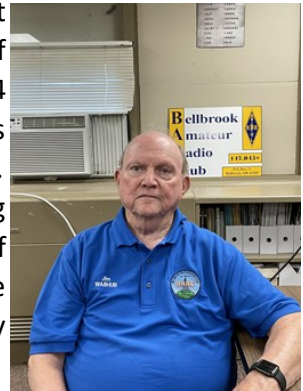
Tink
KD8NUA



Lunch Bunch

Jim Totten, [WA8HUB](#)

Hello my fellow lunch lovers. As I am writing this December 2025 is just about over. Though we may have had showers in April, May, June and July, the days of December have been cold, some rain, snow, and more snow. I expect up to 4 inches of snow this afternoon and tonight. It is time to renew our lunch meetings for this new month, **January, 2026**. To recap: Our club meetings are on Thursdays. The Planning meeting is the first Thursday of the month and the General meeting on the Third Thursday. Our Lunch Schedule is the Second and Fourth Tuesday of each month. If a scheduled Tuesday gets slammed by some unforeseen event the lunch is just cancelled. The invitation messages will go out Wednesday or Thursday of the previous week.



Now, how will the lunches be selected? Accompanying this information page is the chart listing our current set of restaurants. I updated all of the dates for all of the restaurants on our list. This published list is the order we will select each lunch day. You now know what the whole order is and know what's coming next. The **January** restaurants are **highlighted**. Notice that we are back to two lunches per month.

Our December Lunch was the Chic-Fil-A in the Cornerstone Complex. We had 6 stalwart diners. I picked the wrong item. Everybody else had great meals.

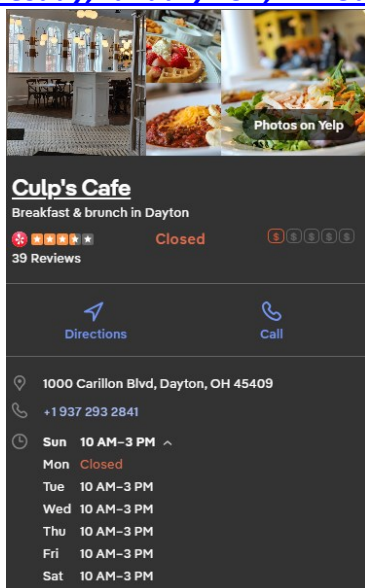
January is a two lunch month. On Tuesday, January 13, 2026 the choice is Culp's Cafeteria at 1000 Carillon Blvd, Dayton, OH. There is plenty of free parking nearby. No admission fee is charged. At one time you entered the restaurant, went to a counter and ordered, paid, and your meal was delivered. Now they have seating and menus and wait persons. Be seated and order. I needn't mention the food is great.

Our second lunch is on Tuesday, January 27, 2026 at the newest City Barbecue at 2001 E. Dorothy lane, Kettering, OH. The same great meats, sides, salads as in any City Barbecue.

That's a wrap for this month. Happy eating.

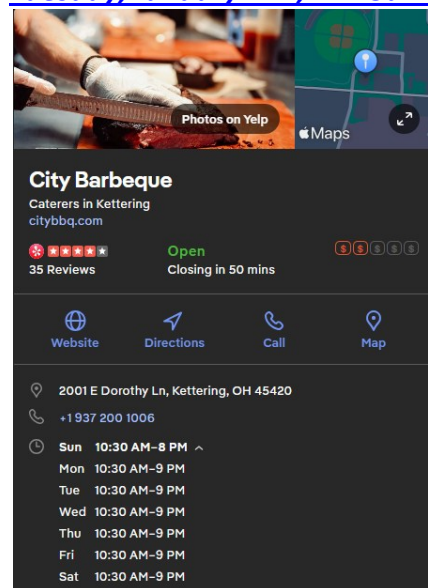
73, Jim, [WA8HUB](#)

[Tuesday, January 13th, 11:15am](#)



Click picture or hyperlink for more info and maps

[Tuesday, January 27th, 11:15am](#)



(Continued on next page)



Lunch Bunch List

Jim Totten, [WA8HUB](#)

Date	Restaurant	Address	City	Phone Number
07/22/25	Cherry House Cafe	1241 Meadow Bridge Dr	Beavercreek, OH 45434	(937) 320-6200
08/12/25	Another Broken Egg Cafe 7:00 am to 2:00 pm	2453 Esquire Dr.	Beavercreek, OH 45431	(937) 912-5074
08/26/25	China Garden Buffet	112 Woodman Dr. Airway Shopping Center	Dayton, OH 45431	(937) 781-9999
09/09/25	First Watch	5245 Cornerstone North Blvd	Sugarcreek Twp, OH	(937) 732-9013
09/30/25	Submarine House	3195 Dayton-Xenia Rd.	Beavercreek, OH 45434	(937) 429-8650
10/14/25	Roosters Wings	2430 N. Fairfield <i>The Shoppes at FC</i>	Beavercreek, OH 45431	(937) 702-9500
10/28/25	Butterbee's	217 Progress Dr.	Xenia, OH 45385	(937) 352-6504
11/11/25	Shawarma Grill	2844 Colonel Glenn Hwy	Fairborn, OH 45324	(937) 429-4959
12/09/25	Chic-Fil-A	5301 Cornerstone N Blvd	Sugarcreek Township, OH 45440	(937) 439-1700
01/13/26	Culp's Cafeteria	1000 Carillon Blvd	Dayton, OH 45409	(937) 293-2841
01/27/26	City Barbecue	2001 E. Dorothy Lane	Kettering, OH 45420	(937) 200-1006
02/10/26	Marion's Piazza	1320 N Fairfield Rd.	Beavercreek, OH 45432	(937) 429-3393
02/24/26	Red Robin	2671 Fairfield Commons Blvd.	Beavercreek, OH 45431	(937) 320-9800
03/10/26	Beavercreek Pizza Dive	4021 Dayton-Xenia Rd.	Beavercreek, OH 45432	(937) 431-8669



DX MARATHON: A Year-Long DX Adventure

Bob French, [AC8ZU](#)

For many amateur radio operators, the thrill of working DX is what keeps them on the air year after year. What if there was a way to turn that enjoyment into a fun, year-long challenge that rewards consistency, skill, and curiosity? That's exactly what the DX Marathon offers—and it's gaining momentum across the global ham community, including recognition in QST Magazine, the flagship publication of the ARRL. There are a glossary of terms at the end of the article.

WHAT IS THE DX MARATHON?

The DX Marathon is a year-long operating activity that challenges hams to work as many DXCC entities (countries) and CQ Zones as they can between January 1 and December 31 of the calendar year. Each unique entity or zone counts once toward your score, no matter how many bands or modes you work them on. You only need to submit a ADIF file. There are several free tools that allow you track progress easily. There is no cost to participate in the marathon and you don't need to leave your chair.

It's different from a contest—it's more flexible and accessible. You don't need to set aside entire weekends or operate at full contest power. Every QSO you make on the HF bands counts. Whether working DX casually after dinner or actively chasing new entities, this program fits your schedule and your station.

GROWING RECOGNITION — QST MAGAZINE

In November 2024, an article about the DX Marathon program was published in QST Magazine (page 86), helping introduce the program to a broad audience of ARRL members and reinforcing its status as one of the fastest-growing DX programs in the world.

The article highlights how the DX Marathon is encouraging hams worldwide to get on the air more often and to make every contact count. This national exposure is a great opportunity for BARC members who may not normally consider DXing to give it a try in a low-pressure, highly rewarding format.

HOW THE SCORING WORKS (SIMPLE AND ENCOURAGING)

- 1 point for each unique DXCC entity worked during the year
- 1 point for each unique CQ Zone worked during the year
- Each entity and zone counts only once, regardless of band or mode
- Your total score is simply the sum of your entities and zones



DX MARATHON: A Year-Long DX Adventure (continued)

Scores are typically submitted shortly after the end of the calendar year.

There are no complicated multipliers, penalties, or operating restrictions. This simplicity is a big part of what makes DX Marathon accessible and fun.

AN ACTIVITY FOR EVERY OPERATOR

One of the reasons the DX Marathon continues to grow is its broad appeal:

- New HF operators can learn propagation and operating basics while building a meaningful score
- Casual operators can stay motivated with a goal that grows steadily throughout the year
- Experienced DXers often use the Marathon to challenge themselves to improve personal bests
- Contesters benefit because every contest QSO contributes to their year-long total

You don't need a big tower or high power to enjoy success. Many operators make excellent progress using modest antennas, wire antennas, or HOA-friendly setups.

TOOLS AND PROGRESS TRACKING

Tracking DX Marathon progress is straightforward:

- Most modern logging programs automatically track DXCC entities and CQ Zones
- Operators can periodically review their logs to see which zones or regions they still need

Many participants find monthly or quarterly progress checks help guide operating strategy.

This process naturally improves logging accuracy and helps operators better understand band conditions and seasonal propagation.

BARC PARTICIPATION ENCOURAGED

Bellbrook Amateur Radio Club members are well-positioned to enjoy DX Marathon participation:

- Share DX tips and band openings during meetings
- Encourage newer members to make their first DX contacts
- Compare progress informally throughout the year
- Use DX Marathon as a mentoring opportunity between experienced and newer operators



DX MARATHON: A Year-Long DX Adventure (continued)

It's a perfect way to promote on-the-air activity without creating barriers related to equipment, time, or experience.

WHY YOU SHOULD PARTICIPATE

The DX Marathon proves that DXing doesn't have to be intense, expensive, or intimidating. It rewards curiosity, patience, and steady operating—and most of all, it keeps radio fun.

Whether your goal is to work a handful of new countries or push toward a personal high score, the DX Marathon offers a friendly, year-long challenge that fits perfectly with the spirit of amateur radio and the mission of BARC.

If you're already on the air—you're already participating.

GLOSSARY OF TERMS

DX

Long-distance radio communication, typically between stations in different countries or continents.

DXCC (DX Century Club)

An ARRL award program based on working and confirming contacts with at least 100 recognized geographic entities. DX Marathon uses the same entity list.

DXCC Entity

A country or distinct geographic region recognized by the DXCC program. Not all entities are sovereign nations.

CQ Zone

One of 40 geographic zones defined by CQ Magazine and used for awards and DX Marathon scoring.

HF (High Frequency)

Radio frequencies from 3 to 30 MHz, commonly used for long-distance communication.

QSO

A radio contact or conversation between two amateur radio stations.

SSB (Single Sideband)

A voice communication mode commonly used on HF bands.



DX MARATHON: A Year-Long DX Adventure (continued)

CW (Continuous Wave)

Morse code communication, still popular for DX due to its efficiency and narrow bandwidth.

Digital Modes

Computer-assisted modes such as FT8, FT4, RTTY, PSK31, and others used for efficient or weak-signal communication.

Propagation

The behavior of radio waves as they travel through the ionosphere, influenced by solar activity, time of day, and season.

ADIF (Amateur Data Interchange Format)

A standardized file format used to exchange log data between logging programs and award submissions.

Contest

A competitive operating event held over a fixed period. DX Marathon differs by running continuously for an entire year.

LEARN MORE: WEB AND VIDEO RESOURCES

DX Marathon Official Website

<https://www.dxmarathon.com>

DX Marathon – QST Magazine Feature Page

https://dxmarathon.com/news/2024/qst_article/

VIDEO RESOURCES

Search YouTube for: "DX Marathon Amateur Radio"

Several short videos explain how DX Marathon works, how it differs from contests, and how modest stations can succeed. These are especially helpful for new HF operators.



Meshtastic: Amateur Radio Operator Perspective

Bob French, [AC8ZU](#)

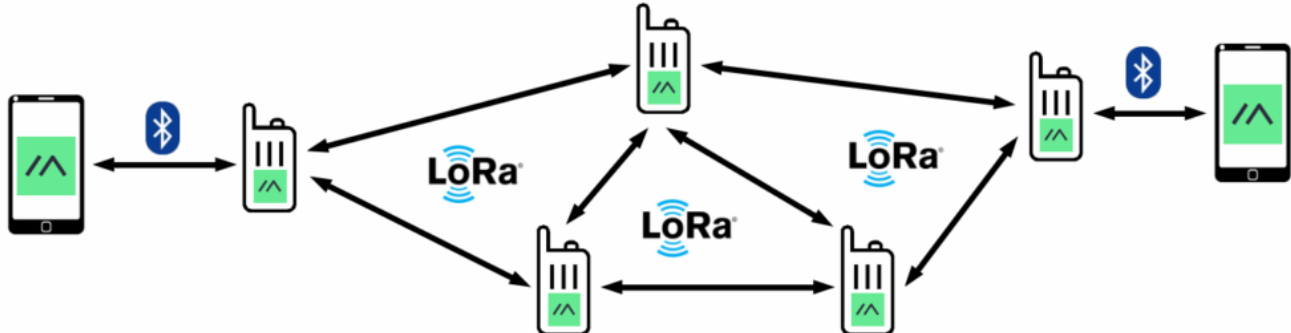
In 2025, modern communication is dominated by data-driven messaging. On the AT&T network alone, Americans send an average of **1.44 billion texts per day**, roughly **3 times the volume of voice calls**. In 2023 it was roughly 2 times the volume. I'm sure the ratio is much higher when you add in iMessage which is Apple's secure messaging service for its devices.

Core Technology: LoRa and Mesh Networking

Meshtastic is an **open-source, low-power mesh networking system** built on **LoRa (Long Range)**, a radio modulation optimized for short data packets. It enables small, battery-powered **nodes** to exchange text messages, position data, and telemetry without reliance on the internet, cellular networks, or fixed infrastructure.

Unlike traditional point-to-point links, repeaters, or centrally planned packet systems, Meshtastic implements a **distributed store-and-forward mesh**, prioritizing resilience, autonomy, and energy efficiency over throughput.

My current nodes can connect with 125+ nodes as far south as Kentucky at the level of my deck approximately 10 feet off the ground. I'm looking to get one raised at a higher level to get better coverage. Many nodes are deployed by non-hams as well as hams. Non hams are most interested in propagation, antennas and micro transceivers. This is a fertile ground for recruiting millennials to amateur radio.



Example of communication through a Meshtastic mesh network from a smartphone
Credit: <https://tutoduino.fr/en/tutorials/meshtastic-xiao-nrf52840-wio-sx1262/>

Operational Logic & Routing

- **Distributed Architecture:** Every node in a mesh is functionally equivalent. There are no masters, no permanent relays, and no pre-defined paths. This differs fundamentally from repeaters or digipeaters, where fixed infrastructure determines packet flow.
- **Store-and-Forward:** Nodes temporarily retain packets before retransmission. This allows the network to tolerate node movement, intermittent availability, sleep cycles, and terrain shadowing.



Meshtastic: Amateur Radio Operator Perspective (cont.)

- **Duplicate Suppression:** Each packet contains a unique packet ID; nodes automatically ignore packets they have already "seen" to conserve airtime.
- **Controlled Flooding:** Routing uses controlled flooding. Packets are rebroadcast opportunistically, while **hop limits (TTL)** strictly constrain propagation to keep airtime usage bounded on low-bandwidth links.
- **Adaptive Routing:** A routing behavior in which nodes make forwarding decisions dynamically based on observed link quality (RSSI), neighbor availability, and network conditions rather than relying on fixed paths or predefined routes.
- **Adaptive Learning:** Nodes passively learn about neighbors and link quality using **RSSI**. Routing decisions are adaptive and probabilistic; if nodes disappear, the network degrades gracefully instead of failing outright.

Mesh coverage scales by adding nodes rather than increasing transmit power. Multiple modest hops provide greater resilience and lower energy cost than a single high-power link.

Timing, Latency, and Power Behavior

Mesh traffic is asynchronous and delay-tolerant. Latency may range from seconds to minutes depending on sleep schedules, hop count, and channel utilization. This behavior is intentional.

Nodes operate with extremely low duty cycles and aggressive sleep cycles. Most nodes spend more than 99% of their time asleep, enabling weeks to months of battery life and solar-powered operation.

Meshtastic nodes typically operate with duty cycles well under 1%, allowing long battery life.

Packet Flow Walk-Through

Aspect	Meshtastic (915 MHz ISM)	Meshtastic (433 MHz Amateur)	APRS
License required	No	Yes	Yes
Regulatory framework	ISM rules	FCC Part 97	FCC Part 97
Encryption	Permitted	Prohibited	Prohibited
Network model	Distributed mesh	Distributed mesh	Infrastructure-centric
Routing	Opportunistic	Opportunistic	Planned
Infrastructure	None	None	Digipeaters / iGates



Meshtastic: Amateur Radio Operator Perspective (cont.)

1. Node A creates a packet containing payload data and a TTL
2. The packet is transmitted via LoRa
3. Nodes B and C receive the packet and verify the packet ID
4. RSSI and internal heuristics determine whether the packet is forwarded
5. The packet is rebroadcast with the TTL reduced
6. Duplicate receptions are ignored
7. Node D eventually receives and displays the message

If intermediate nodes disappear, alternate paths may still succeed without collapsing the network.

Meshtastic performance depends heavily on RF quality and power design.

Meshtastic vs APRS — Core Differences

Regulatory Considerations

915 MHz operation occurs in the ISM band and is license-free, allows encryption, and does not require callsign identification. 915 MHz band is the primary usage of Meshtastic in the USA.

433 MHz operation falls entirely under FCC Part 97 amateur radio regulations. An amateur license is required, callsign identification is mandatory, encryption is prohibited, and communications must serve an amateur purpose.

APRS also operates under FCC Part 97 using a fixed national frequency and relies on digipeaters and iGates.

Meshtastic can be linked to the internet via MQTT (IoT). It is not encouraged since it relates to non-valued traffic. Internet connection is most used for mapping, also for web hosting of your node's telemetry. I will not dive deeper into that subject in this article. See [glossary](#) for additional information and [Meshtastic](#) web site.

Hardware Considerations

It is my opinion that the RAKwireless WisBlock with nRF52840-based process as of December 26, 2025, is the best to utilize in your build or purchase readymade solution. LORA hosted processor technology is quickly evolving. Most of the YouTube videos recommendation are out of date due to technology evolving so quickly. You will need to do a little research before you buy.

Hardware Efficiency: The nRF52840 Advantage

While early ESP32-based boards are common, they are power-hungry due to their Wi-Fi stacks. Modern professional nodes utilize the nRF52840 MCU, which is the gold standard for solar-powered nodes because it can idle in the micro-amp range.

In my own projects I currently use the RAKwireless WisBlock with nRF52840-based process to build my solar-powered nodes. The nodes remained online for weeks in poor weather on very small batter-



Meshtastic: Amateur Radio Operator Perspective (cont.)

ies. Their weight goal is under 2 pounds, and I can fit within 2 hands.

Technical Specifications: The SX1262 Transceiver

The SX1262 transceiver is the modern standard for Meshtastic, offering:

- Sensitivity: Down to -151 dBm, allowing decoding even at -20 dB SNR.
- Power Draw: Only 4.6 mA in RX mode, nearly half that of older hardware.
- TCXO: Critical for maintaining frequency stability in varying outdoor temperatures. TCXO (Temperature-Compensated Crystal Oscillator). A precision oscillator that maintains frequency stability over wide temperature ranges. Essential for reliable LoRa operation outdoors.

I plan to write a second article on building a node in the very near future. If members are interested in constructing units, I am available to give presentations, assist with building, or lead a lab session.

Glossary

APRS (Automatic Packet Reporting System)

A digital communication system used by amateur radio operators to exchange position reports, messages, telemetry, and weather data. APRS relies on fixed frequencies, digipeaters, and internet-connected iGates.

Bluetooth Low Energy (BLE)

A short-range, low-power wireless protocol used by Meshtastic nodes for configuration and management via smartphones or computers.

Channel Utilization

The proportion of airtime consumed by transmissions on a given frequency. Controlled flooding and duplicate suppression are used to minimize channel congestion.

Digipeater

A fixed APRS station that receives and retransmits packets to extend coverage. Digipeaters represent centralized infrastructure, unlike Meshtastic nodes.

Distributed Architecture

A network design where all nodes are functionally equal, with no master controller or permanently assigned relay nodes.

Encryption

The use of cryptographic techniques to obscure message contents. Permitted in ISM bands (e.g., 915 MHz) but prohibited under FCC Part 97 amateur radio rules.



Meshtastic: Amateur Radio Operator Perspective (cont.)

ESP32

A popular microcontroller with built-in Wi-Fi and Bluetooth. While inexpensive and common in early Meshtastic devices, it consumes significantly more power than modern low-power MCUs.

Hop

A single retransmission of a packet from one node to another. Multiple hops allow packets to traverse large areas using modest transmit power.

Hop Count

The number of hops a packet has taken or is permitted to take. Limited by TTL.

iGate

An APRS gateway that connects RF traffic to the internet, allowing packets to be distributed globally. iGates are infrastructure-dependent components.

ISM Band (Industrial, Scientific, and Medical)

Unlicensed frequency bands such as 915 MHz in the United States. These bands permit encryption and do not require operator licensing.

Latency

The delay between packet transmission and reception. In Meshtastic networks, latency may range from seconds to minutes due to sleep cycles and hop count.

Link Budget

The total gain and loss between transmitter and receiver, including antenna gain, path loss, and receiver sensitivity.

LoRa (Long Range)

A low-power radio modulation scheme optimized for long-range communication at low data rates. Ideal for short packets and battery-powered devices.

Mesh Network

A network topology where each node can relay data for others, allowing multiple redundant paths and resilience against node failure.

Microcontroller Unit (MCU)

The main processing component of a node, responsible for protocol handling, power management, and peripheral control.

MQTT (IoT)

Message Queuing Telemetry Transport, or MQTT, is a communications protocol designed for IoT (Internet of Things devices) with extremely high latency and restricted low bandwidth. When MQTT is enabled, the Meshtastic device simply uplinks and/or downlinks every raw MeshPacket that it sees to



Meshtastic: Amateur Radio Operator Perspective (cont.)

the MQTT broker

Node

An individual Meshtastic device capable of transmitting, receiving, storing, and forwarding packets within the mesh.

Opportunistic Routing

Routing decisions made based on real-time conditions rather than preplanned paths. Nodes forward packets when conditions appear favorable.

Packet

A discrete unit of transmitted data containing payload, addressing information, packet ID, and TTL.

Payload

The user data carried within a packet, such as text messages, GPS coordinates, or telemetry values.

RSSI (Received Signal Strength Indicator)

A measurement of received signal power used by nodes to estimate link quality and make routing decisions.

Sleep Cycle

A power-saving state in which a node disables most circuitry between transmissions or receptions.

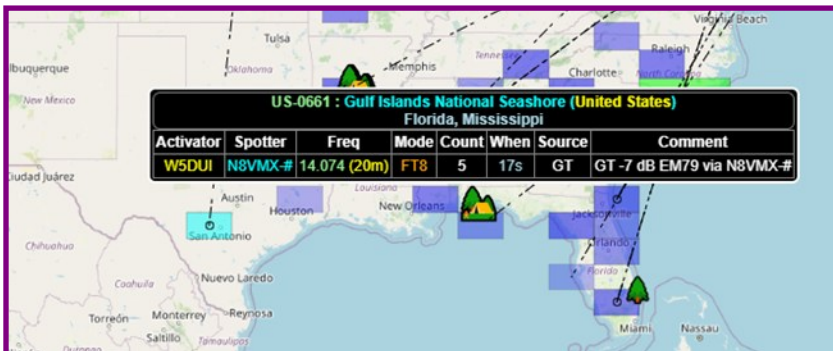
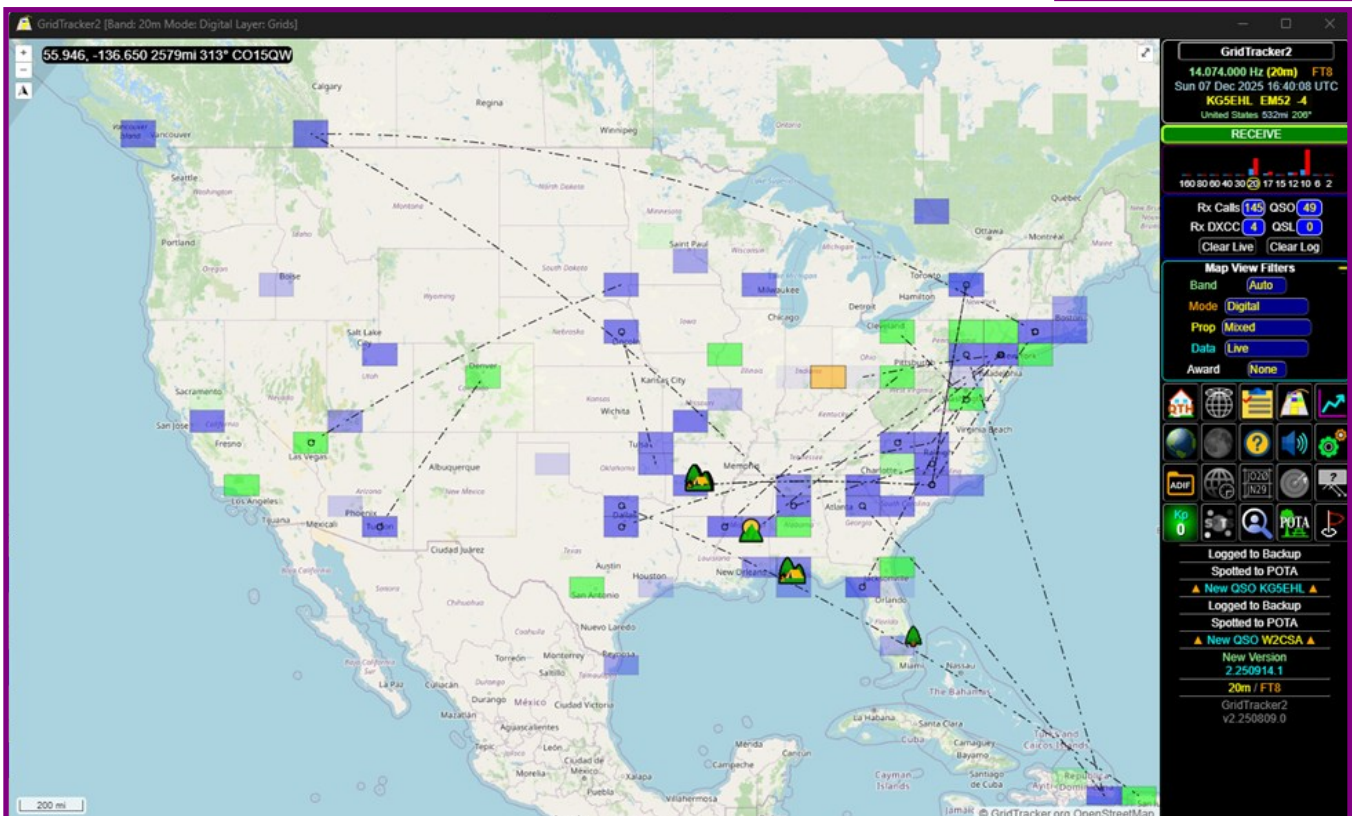


Using GridTracker for POTA Hunting

Ray Hitt, [N8VMX](#)

Most of you may have heard of GridTracker 2 (which I will call GridTracker from now on). Some of you, like me, might use GridTracker but have never dug deep into the features it has. We discuss this often on our weekday 1130 DMR Net on DMR talkgroup 310557, because many of us use GridTracker for FT-8 assistance. We have club members who are resident experts on GridTracker and recommended using it for POTA. So, I took a closer look and found some nice surprises.

The first thing I noticed was that there is a POTA icon in the control panel on the right of the map (see right and below). Toggling it on activates icons on the map, resembling pine trees and campgrounds. Hovering your mouse over the icon displays information about the POTA station at that park. The icons change if you have worked the park today or if it's on another band.



Hovering the mouse over a park I worked recently shows this additional info. Since I received this station directly, my information on received signal strength and frequency are derived from my WSJT-X output that GridTracker is monitoring.



Using GridTracker for POTA Hunting (continued)

For the map to display a POTA station, they must have spotted themselves on the [POTA website](#). But I found another equally useful feature that helps to capture stations that operate POTA but have not spotted themselves. This makes use of the Open Call Roster button on the control panel (see highlighted icon right). Push that button and you'll see a new window pop up, a sortable table of the FT-8 contacts your transceiver is hearing from WSJT-X (see below).



Call Roster: 68 heard • 45 in roster

RECEIVE | Halt TX | Settings

Logbook: **Live Band & Mode**

Hunting: **New+Unconfirmed**

Wanted: Callsign, Grid, DXCC, Marathon, WPX, POTA, CQz, ITUz, State, County, Continent, Watcher

Exceptions: Only Wanted, CQ Only, RR73 as CQ, New Calls, Has Grid, Not My DXCC, Only My DXCC, Uses eQSL

Callsign	Calling	Grid	POTA ▲	DXCC	Flag	State	dB	Age
KM6TAU	WB0OQV	CM88	US-4578	United States	🇺🇸	CA	-12	7s
AC7WY	N8BEK	DN61		United States	🇺🇸	WY	-1	7s
ZS4JAN	CQ	KG30		South Africa	🇿🇦		-10	7s
KO6IHJ	N1CNV	CM98		United States	🇺🇸	CA	-3	1m 37s
PV8AJ	N8BEK	FJ92		Brazil	🇧🇷		-11	7s
H82AT	NS4X			Panama	🇵🇦		-9	7s
KF9UG	NS4X	EN71		United States	🇺🇸	IN	-18	37s
VE6JMB	KE5YKR	DN39		Canada	🇨🇦	AB	-18	22s

This table is cropped from GridTracker, it contained well over 50 conversations. Notice that the POTA column shows a POTA US park number "US-4578". I clicked on the POTA heading to sort the table by POTA status. This puts all the POTA stations at the top of the display (or bottom if you click POTA twice). The park number is normally shown with a solid purple highlight, but once you successfully work that station, the highlighting changes to only a purple outline. If you uncheck the POTA checkbox, the park numbers will be shown with no highlighting at all.

If a station is operating POTA but has not been spotted, there will be no information in the POTA column. But I found another helpful way to find POTA stations would be to sort on the "Calling" tab. This will rearrange the contacts in order of the callsign being called by the far station (see below).

Call Roster: 47 in roster

DECODE | Halt TX | Settings

Logbook: **Live Band & Mode**

Hunting: **New+Unconfirmed**

Wanted: Callsign, Grid, DXCC, Marathon, WPX, POTA, CQz, ITUz, State, County, Continent, Watcher

Exceptions: Only Wanted, CQ Only, RR73 as CQ, New Calls, Has Grid, Not My DXCC, Only My DXCC, Uses eQSL

Callsign	Calling ▲	Grid	POTA	DXCC	Flag	State	dB	Age
F4CIX	AC7NT	JN03		France	🇫🇷		-9	1m 27s
ZS4JAN	CQ	KG30		South Africa	🇿🇦		-7	12s
PV8AJ	CQ	FJ92		Brazil	🇧🇷		-1	12s
NA7KR	CQ	CN84		United States	🇺🇸	OR	-11	12s
ZS5KT	CQ	KG50		South Africa	🇿🇦		-6	1m 42s
KF9UG	CQ	EN71		United States	🇺🇸	IN	-10	12s
N6CFC	CQ	DM04		United States	🇺🇸	CA	-13	12s
CT2KCK	CQ	IM59		Portugal	🇵🇹		-5	12s
VA6BED	CQ	DO20		Canada	🇨🇦	AB	-9	12s
W7KK	CQ	DN45		United States	🇺🇸	MT	-4	27s
MW3FLI	CQ NA	IO83		Wales	🇬🇧		-5	27s
KM6TAU	CQ POTA	CM88	US-4578	United States	🇺🇸	CA	-24	1m 12s
KC9BK	CT2KCK			United States	🇺🇸	WI	-10	27s
KZ4RB	DK7ZT			United States	🇺🇸	FL	-13	1m 12s



Using GridTracker for POTA Hunting (continued)

Notice that all the call signs are sorted, now all the CQ's are together and easy to locate. Notice the CQ POTA is sorted at the bottom of the CQs. If you see one of these, carefully double-click on the POTA station's call sign to the left and it will populate WSJT-X and start calling them if your WSJT-X is set up to do that (mine is not!), otherwise in WSJT-X hit the "Enable Tx" button to queue up for transmitting on the proper even/odd setting to communicate with that station.

If you have worked all the POTA stations, you can mix it up by sorting this table by DXCC which will essentially be sorted by countries. I found a cluster of Japanese stations one Saturday evening. I called one and eventually got through, then 4 more Japanese stations called me back, all at once. They were patient, and I was able to work them all one-by-one. Amazing!

I may write an article on how to get GridTracker up and running on your Windows or Linux computer. I use it on both, it runs on a Raspberry Pi, but I would recommend a Pi-4 or Pi-5 minimum to support the heavy graphics demands of GridTracker. More on that later. If you want to read a great reference, I found a great one online thanks to Grok, the [GridTracker 2 User Guide](#). It looks like a lot of Randy KAØAZS's fingerprints are in this document. I asked him and he said he did provide some help in the POTA sections of the guide. He's our resident expert when it comes to all things GridTracker. Thanks Randy!

There are also a lot of interesting YouTube videos on GridTracker. Here are a few examples:

[Make Your WSJT-X & GridTracker Look Awesome and Work Better!](#)

(Ham Radio Crash Course)

[GridTracker | Making FT8 Fun Again](#)

(Ham Radio Tube)

[Updated GridTracker: Discover the New Call Roster!](#)

(ND3N Ham Radio Chat)

73, Ray [N8VMX](#)



Answers to Amateur Radio Test Questions on pages 30-32

[Technician \(pg. 30\)](#)

T3A02 (B)

T1A01 (C) [97.1]

T8B12 (C)

T6B01 (A)

[General \(pg. 31\)](#)

G9B10 (D)

G7C13 (D)

G1E11 (D) [97.221, 97.305]

G9D06 (A)

[Amateur Extra \(pg. 32\)](#)

E2A10 (B)

E2D11 (D)

E9A10 (A)

E4B05 (B)



Special Event Stations for January

Paul Sharp, [WS8R](#)

Here are a 2 links you can follow to find many SES that suit your varied interest. I may repeat and update some of these links as there are only a few sites focused on SES.

http://www.arrl.org/special_events/search/page:2/model:Event.

https://www.qsl.net/va3rj/spevents_dx.html.

Here is my pick of the litter of SES that I think will be of interest to my fellow BARC members. December 2025 was a slow month; January 2026 is even slower with very few SES. There are SES commemorating: Straight Key, Desert Storm, First Wireless-coordinated High Seas Rescue 1909, and discovery of Gold.

01/02/2026 | 20th Annual Straight Key Month. K3Y/0 thru 9 plus KH6, KL7, KP4 and DX member stations in six WAC areas operating straight key, bug and cootie keys. QSL card confirms one QSO per area, up to 19 for all-area sweep. See URL for op sched/map, stats, etc.

Jan 2-Jan 31, 0000Z-2359Z, K3Y, Ellicot City. SKCC - Straight Key Century Club. 3.550 7.055 14.050 21.050. Certificate & QSL. SKCC c/o Ted Rachwal - K8AQM, 6237 Twin Lakes Drive, Smiths Creek, MI 48074. www.skccgroup.com/k3y

01/10/2026 | Operation Desert Storm. Jan 10, 1700Z-2359Z, NI6IW, San Diego, CA. USS Midway Museum Ship. 14.320 7.250 14.070 PKS31 DSTAR on Papa System Repeaters. QSL. USS Midway Museum Ship, 910 North Harbor Drive, San Diego, CA 92101.

01/16/2026 | Celebrating the Fort Myers ARC Hamfest and the ARRL Section Meeting. Jan 16-Jan 17, 1600Z-1800Z, W4LX, Fort Myers, FL. Fort Myers Amateur Radio Club. 14.060 14.270. QSL. Fort Myers Amateur Radio Club, PO Box 061183, Fort Myers, FL 33906. www.fmarc.net

01/24/2026 | First Wireless-coordinated High Seas Rescue 1909. Jan 24, 1330Z-2100Z, K3S, Port of Baltimore. Nuclear Ship Savannah ARC. 7,14,18,21,28MHz. QSL. Ullis Fleming, 980 Patuxent Rd, Odenton, MD 21113. qrz.com/db/k3s

01/25/2026 | Discovery of Gold in California 177th Anniversary Special Event Station. Jan 25-Jan 27, 1700Z-0100Z, AG6AU, Placerville, CA. El Dorado County ARC. 7.248 14.248 21.348 28.348. QSL. El Dorado County ARC, PO Box 451, Placerville, CA 95667. edcarc.net



Amateur License Test Questions

[Answers are on page 28](#)

Technician

T3A02

What is the effect of vegetation on UHF and microwave signals?

- A. Knife-edge diffraction
- B. Absorption
- C. Amplification
- D. Polarization rotation

T1A01

Which of the following is part of the Basis and Purpose of the Amateur Radio Service?

- 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 these choices are correct

T8B12

Which of the following is a way to determine whether your satellite uplink power is neither too low nor too high?

- A. Check your signal strength report in the telemetry data
- B. Listen for distortion on your downlink signal
- C. Your signal strength on the downlink should be about the same as the beacon
- D. All these choices are correct

T6B01

Which is true about forward voltage drop in a diode?

- A. It is lower in some diode types than in others
- B. It is proportional to peak inverse voltage
- C. It indicates that the diode is defective
- D. It has no impact on the voltage delivered to the load



Amateur License Test Questions (continued)

[Answers are on page 28](#)

General

G9B10

What is the approximate length for a 1/2 wave dipole antenna cut for 14.250 MHz?

- A. 8 feet
- B. 16 feet
- C. 24 feet
- D. 33 feet

G7C13

What term specifies a filter's maximum ability to reject signals outside its passband?

- A. Notch depth
- B. Rolloff
- C. Insertion loss
- D. Ultimate rejection

G1E11

On what bands may automatically controlled stations transmitting RTTY or data emissions communicate with other automatically controlled digital stations?

- A. On any band segment where digital operation is permitted
- B. Anywhere in the non-phone segments of the 10-meter or shorter wavelength bands
- C. Only in the non-phone Extra Class segments of the bands
- D. Anywhere in the 6-meter or shorter wavelength bands, and in limited segments of some of the HF bands

G9D06

Which of the following is an advantage of a log-periodic antenna?

- A. Wide bandwidth
- B. Higher gain per element than a Yagi antenna
- C. Harmonic suppression
- D. Polarization diversity



Amateur License Test Questions (continued)

[Answers are on page 28](#)

Amateur Extra

E2A10

What type of satellite appears to stay in one position in the sky?

- A. HEO
- B. Geostationary
- C. Geomagnetic
- D. LEO

E2D11

How do APRS stations relay data?

- A. By packet ACK/NAK relay
- B. By C4FM repeaters
- C. By DMR repeaters
- D. By packet digipeaters

E9A10

Which of the following improves the efficiency of a ground-mounted quarter-wave vertical antenna?

- A. Installing a ground radial system
- B. Isolating the coax shield from ground
- C. Shortening the radiating element
- D. All these choices are correct

E4B05

What three test loads are used to calibrate an RF vector network analyzer?

- A. 50 ohms, 75 ohms, and 90 ohms
- B. Short circuit, open circuit, and 50 ohms
- C. Short circuit, open circuit, and resonant circuit
- D. 50 ohms through 1/8 wavelength, 1/4 wavelength, and 1/2 wavelength of coaxial cable



Editorial Policy and Style Guidelines for *Full Quieting*

Editorial Policy

Full Quieting welcomes articles from BARC members on any ham radio subject that is relevant to BARC. Our focus is our BARC members. We will not reprint items or articles that are easily available by other means (web, magazines, etc.).

Most articles will be “how to” or “what I did” articles that focus on technical or operational subjects such as a construction (antennas, equipment, stations, etc.), the use of hardware or software, operating in unique/challenging circumstances, or a memoir.

Full Quieting will also consider an occasional article on policy issues regarding the various national licensing/regulatory agencies and/or amateur radio associations so long as the article is relevant to BARC members and constructive in tone and recommendations.

Although all *Full Quieting* articles represent the experiences and points-of-view of their authors and not BARC, articles that focus on policy issues will be specifically labeled as a reflection of the author’s opinion.

Regardless of subject, when you submit an article you acknowledge that you are the original author or creator and you grant publication rights to BARC. Anything you submit remains your property and you may have it published elsewhere without the need for permission from *Full Quieting*.

Style Guidelines

Language: English is the official language of *Full Quieting* and all articles should be submitted in English. Don’t be concerned if English is not your first language: just tell your story in your own voice and use translating tools such as Google Translate to help if necessary.

File format: Submit your article as a Word, Word Perfect, OpenOffice or text file attachment to an email. A shared document available for download (such as a Google Doc) is also okay. **Do not submit as an email or PDF file.**

Pictures and other graphics: Do not embed pictures or tables in the article. Please submit as an email attachment or a shared image available for download. Please reduce the file size of the images before you send them to *Full Quieting*. Large files can be attached to a series of emails. Keep file size in mind regarding publication quality: for example, a half page image in the final PDF version of *Full Quieting* should be at least 400 pixels wide. If a photograph or graphic was taken or created by someone else, you should have their permission to use it and the permission of anyone identifiable in the image. **If you capture images from the web, provide a citation (URL) for that source and make sure the source does not prohibit use of the image in *Full Quieting*.**

(Continued on next page)



Editorial Policy and Style Guidelines for *Full Quieting*

(Continued from previous page)

Use these style conventions

- We are hams, not Hams, and our hobby is ham radio This is a change to our original format
- The name of our organization is: Bellbrook Amateur Radio Club or BARC
- The code we use is Morse (capitalize the M)
- We use Yagi antennas (capitalize the Y)
- Q codes should be capitalized: QRM, QSB QSY
- The plural of QSO is QSOs, not QSO's
- Modes should be capitalized: CW, SSB, FT8, RTTY
- Bands are written as 10 m, 15 m etc.
- The abbreviation for a Silent Key is SK.
- You might have had an Elmer, not an elmer

Bruce N7RR has provided a [two-page check list](#) of common International System of Units (SI) formats and abbreviations.

Use these formatting conventions:

- Set all borders to 1 inch. The preferred font is Calibri, 12 point.
- Do not use tabs or spaces at the beginning of a paragraph
- Use only a single paragraph or carriage return at the end of each paragraph
- To enhance readability, use two spaces after the period at the end of a sentence.



Miscellaneous BARC Info

REGULARLY SCHEDULED NETS

Daily (Sunday through Saturday) 1030, 1615 and 1845 Ohio Single Sideband Net (OSSBN) Primary: 3972.5 KHz LSB Alternates: 3968 & 7272 KHz LSB

Weekdays (Mon-Fri) 1130 DMR Net Brandmeister Talk group 310557. Accessible via hotspot, 147.390 (+) CC13 TS2(Dayton East), 444.4375 (+) CC11 TS2 (Dayton West)

Sundays 1900 Newcomers & Elmers Net (Cincinnati) 146.670 (-) (123.0 PL)

Sundays 2000 **BARC Weekly Net 147.045 (+) (118.8 PL) [Alt 443.675 (+) (118.8 PL)]**

Sundays 2100 Miami Co. Voice & Data Net (Data Net follows Voice Net) 145.230 (-) (no PL)

Winlink Tuesdays GCARES Winlink Net Any time on Tuesdays Eastern Time Send To: W8LRJ, Cc: KE8FMJ W8GCA-10 445.010 (S), W6CDR-10 145.010 (S)

Tuesdays 1900 Dayton Veterans Admin Amateur Radio Club Net (W8DVA) 443.850 + 107.2 pl

Tuesdays 1915 Ohio ARES HF Net W8SGT Net Control at OEMA HQ Primary: 3902 KHz LSB (+/- QRM) Alternate: 7240 KHz LSB (+/- QRM)

Tuesdays 1945 Ohio Digital Emergency Net Primary: 3584.5 KHz USB (1500 WF) Alternate: 7072 KHz USB

Tuesdays 2000 MoCoARES Weekly Net 146.640 (-) (123.0 Hz PL) (Except—No Net on last Tuesday of even months (MoCoARES meeting) (Except—On 2nd Tuesday: Voice and Data Net on 444.250 (+) (123.0 PL)

Tuesdays 2100 GCARES Net (Voice & Data) 146.910 (-)(no PL) [Alt = 442.725]

Ohio Winlink Wednesdays OH ARES Winlink Net Any time on Wednesdays Eastern Time Send To: K8EAF, Cc: W8LRJ, KE8FMJ W8GCA-10 445.010 (S), W6CDR-10 145.010 (S)

Wednesdays 2000 Ohio District 3 ARES Net (West Central Ohio Regional Net) Primary: 145.110 (-) (67.0 PL) Alternate: 146.820 (-) (77.0 PL)

Wednesdays 2000 Beginners Net (Dayton Area) 444.875 (+) (94.8 PL)

ZOOM-Basic Setup & Configuration

Here's a link to the Zoom Video Tutorials: [Zoom how-to video tutorials – Zoom Help Center](#)

Also see: "Join a Meeting" and the "Joining & Configuring Audio & Video" tutorials for new users. Send questions or problems to John, [W8LRJ](#) ASAP but BEFORE the next meeting.

BARC Fundraising Opportunity — Kroger's Rewards Program Please use your Kroger Card when shopping at Kroger's and support BARC. If you haven't signed up and need help, bring your Kroger Card to the next BARC meeting, and we'll help you get registered (contact the [BARC Treasurer](#)).

ARRL Discounted Membership Offer One of the benefits of club membership is the opportunity to become an ARRL member at a discounted price. BARC is an ARRL affiliated club and receives a commission for new first-time ARRL memberships transacted through the club. BARC passes on this commission (discount) as a club membership benefit to promote ARRL membership. BARC members currently receive a \$15 discount on a NEW first year ARRL membership cost when placed through the Club. Please contact the [BARC Treasurer](#) for details.

