



Full Quieting

The Official Journal of The Bellbrook Amateur Radio Club



July 2025 — Issue 47

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From the Editor

Well, June is behind us now and July is before us. And as usual, we have a lot going on.

June Field Day was held indoors, and while everyone enjoys the experience of setting up at Sackett Wright Park, we are blessed to have our BARC Clubhouse available as a fallback. I hope you all enjoyed what may very well be our last Field Day held in our existing BARC Clubhouse.

I'm continuing my analysis of vertical antennas using the NanoVNA, this month I delve into a couple of Army manpack specials, the AN-231A and the AT-271A foldable whip antennas. Perfect for POTA or SOTA!

Speaking of POTA, I still haven't gotten out this season. I have however worked out the kinks in using a Raspberry Pi in a POTA setup to do the digital modes and logging of digital and SSB. Now, to wait for the weather to break a little more on the cool side and get out to a park!

Look for changes in July as we dip our toes into the water so to speak, as we try out our new meeting spaces and eventually move some gear over to the new radio room. I look forward to make great use of the new spaces and adapt to change (improvise, adapt, overcome...Semper Fi)

73, Ray Hitt, [N8VMX](#)

Full Quieting Editor

ARRL FIELD DAY



www.arrl.org



2024 BARC Officers and Directors

President: Geoff Kline, [KI5VNB](#)

Vice President: Eric Bramini, [KC8OPY](#)

Secretary: Jim Gifford, [N8KET](#)

Treasurer: John Westerkamp, [W8LRJ](#)

Senior Director: Bob French, [AC8ZU](#)

Junior Director: Don Macon, [KE8WVJ](#)

2024 Coordinators

Clubhouse: Jim Lusk, [KC8EFD](#)

Comm Center: John Westerkamp, [W8LRJ](#)

Contesting: Ken Gunton, [W8ASA](#)

Education: Paul Sharp, [WS8R](#)

Emergency Preparedness: Jim Lusk, [KC8EFD](#)

Field Day: Glenn Rodgers, [W8IO](#)

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: Roger Hoffman, [WB9BXT](#)

Repeater: Russ Roysden, [N8NPT](#)

Tech Night: Bob French, [AC8ZU](#)

Webmaster: John Westerkamp, [W8LRJ](#)

BARC Net: Every Sunday, 8 PM Local

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

Directions to BARC Clubhouse and Comm Center

Rooms 1 & 3 Lower Level Sugarcreek Elementary School

51 S. East Street, Bellbrook (One block east & one block south from the traffic light in downtown Bellbrook)

Enter at South end of building

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

By the time you're reading this, Field Day 2025 is officially in the log—and hopefully your call sign is too! I'd love to report that the weather was sunny, the bands were wide open, and we signed up 50 new members who just happened to stroll by and get bitten by the radio bug. Realistically though, whether we were operating under blue skies or dodging raindrops and RF, I'm confident everyone had a great time.

If you joined us at Field Day, thank you! I'd love to hear your thoughts—what did you enjoy most? What can we do better next year? If you couldn't make it, I'd still like to hear how your Field Day went, whether it was running 100 watts in a backyard tent or running from mosquitoes with QRP gear in the woods.

On the topic of big news: thank you to all who attended June's meeting and voted to authorize the committee to begin the transition to our new clubhouse location. The rental agreement form has been completed and submitted to the Bellbrook Sugarcreek School System, so we're officially in motion.

To start getting comfortable in the new digs, we've scheduled our July meetings there:

- **Officer & Coordinator Planning Meeting:** Thursday, July 10 (moved from July 3 due to the holiday)
- **Membership Meeting:** Thursday, July 17 – 7:00 PM social time, 7:30 PM meeting start

We'll be sharing more info soon via email about where to go and how to find the meeting room. Please make time to attend one of the meetings to see the new space and tour the soon-to-be radio room before we bring in the stations, repair desk, and the coax.

Continuing with my tradition of nudging everyone to try something new in ham radio, I dug into what July has to offer—and it turns out there's plenty of RF fun to be had:

- **Sporadic-E on 6 meters** should be going strong. Afternoons and evenings can bring surprising DX—from the Caribbean to Europe, and maybe even Japan. Watch the clusters and keep that mic handy!
- **2 meters** isn't just for repeaters—hot, humid weather brings chances for **tropospheric ducting**, especially in the mornings and evenings. Look for high-pressure systems and you might bag a 300–600 mile VHF QSO.
- On **HF**, 20m and 17m continue to be solid bets, but 40m and 80m can be noisy with all the summer thunderstorms. Don't let the QRN scare you off—just crank that noise blanker and give it a try.
- Don't forget the **13 Colonies Special Event**, running July 1–7. It's a fun challenge and a great way to fill your log with historic call signs.
- And of course, there's always **POTA**—July is a fantastic time to take your gear into the wild and activate a park (or several!).

Lastly, I want to wish you and your family a safe and happy Independence Day. Whether you're grilling, camping, or calling CQ, I hope you get some well-deserved R&R—and maybe sneak in a few contacts too.

See you at the meetings, or hear you on the air!

73, **Geoff Kline**, [K15VNB](#)



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!

Martin Toher, N9MET Extra

Jon Thuermer, KB8SRQ Advanced

Update on Caged Hen Delta Antenna

Ray,

Back in late April you expressed an interest in a final version of an introduction to my paper. It took a month of very helpful collaboration with the *Radio Amateur Association of Western Greece* to create it for their newsletter. They also took the time to mentor me in understanding the theory of 'radiation resistance', which isn't 'resistance' at all in the usual sense. I added that new understanding to my paper, too.

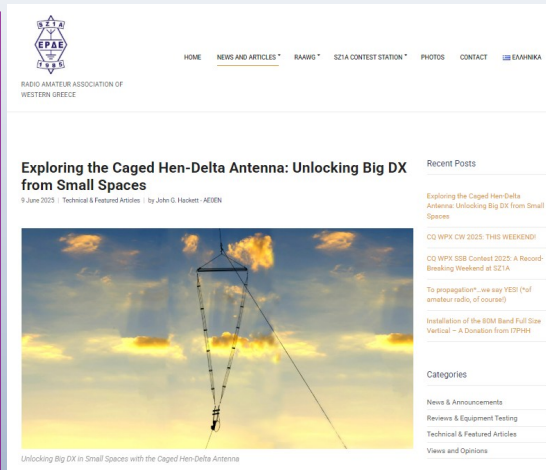
Here is the intro we created and I think it is pretty good. It might be simplest if you would just reference this link in your newsletter — I can send you the same illustration of the 6-bander to show people what the intro is about, if that would be useful.

<https://sz1a.org/en/featured-articles/exploring-the-caged-hen-delta-antenna-unlocking-big-dx-from-small-spaces/>

The link to my full paper is at the end of the introduction, and here: <https://archive.org/details/caged-hen-delta-antenna>

Thank you for your interest! Let me know how I can help!

-John AE0EN



Little Miami River Cleanup Update

Even though there was no water cleanup this year requiring BARC assistance, the LMRN volunteers stuck to the land and shallow tributaries on their clean up efforts. They managed to remove 1,225 pounds of trash including a cattle panel, air conditioning unit, construction supplies, a mat, pallet, metal debris, baby stroller, shopping cart, barbed wire fencing, and as always so many tires.

They are looking at options for more cleanups on the river. The LMRN will notify BARC requesting our assistance if they decide to do a water cleanup later this summer.

I would like to thank the members of BARC who volunteered for this event. If I hear of future events later this summer, I'll let you know.

Stay tuned.

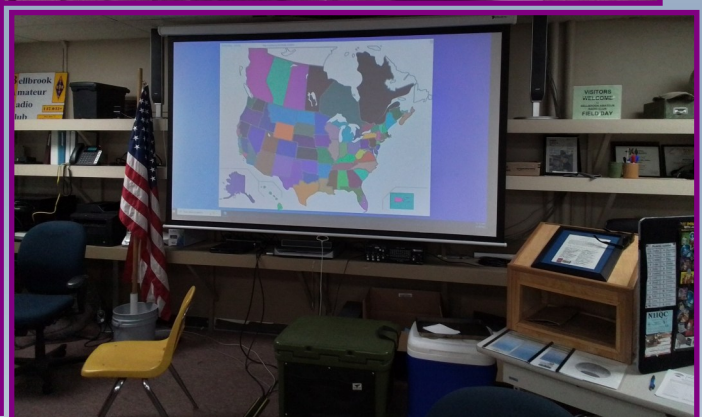
73, Darryl Fowler [KD8JQE](#)



What's Up BARC? (continued)

BARC Field Day

BARC held its 2025 Field Day on 28-29 June. Due to the high probability of extreme weather (high heat and humidity and/or severe thunderstorms), BARC opted to operate out of its clubhouse instead of Sackett Wright Park. There was a high turnout of BARC members, visitors, government officials, and first responders. The Pot Luck Social was a big hit. This will be the last time we will be able to use this Clubhouse for Field Day, so a big shoutout to Glenn W18O, John W8LRJ, Jim N8KET, Paul WS8R, Steve KD8NUC, Tink KD8NUA, and all the members who took part in the Field Day planning. Sorry if I forgot anyone!



What's Up BARC? (continued)

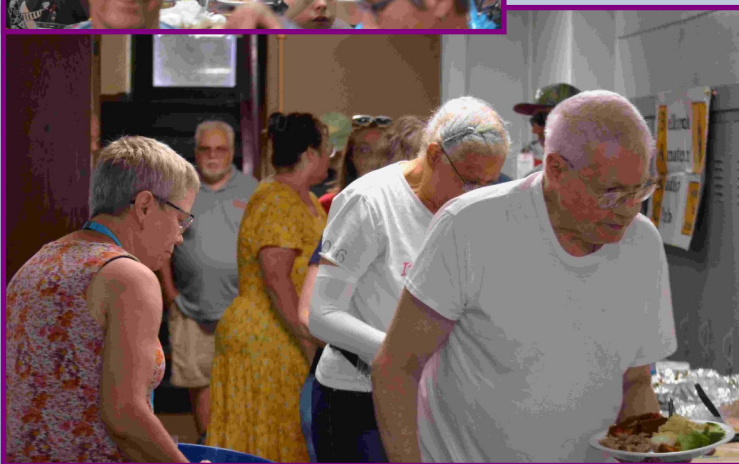
BARC Field Day (continued)

Bob AC8ZU (Tech Night Coordinator) leading the Fox Hunt using tape measure yagi antennas



What's Up BARC? (continued)

BARC Field Day (continued) BARC Pot Luck Social featuring Dot's Chicken and Broasted Potatoes. Thanks Tink and Steve for setting it up! And to everyone who brought in the great food!



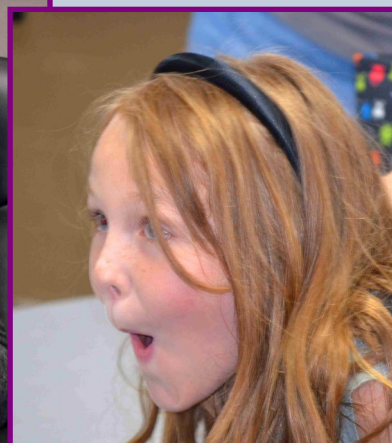
What's Up BARC? (continued)

BARC Field Day (continued) Thanks to our first responders and elected officials who visited the BARC Clubhouse.



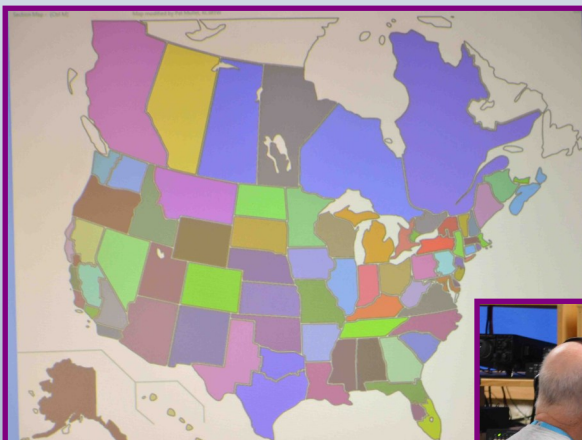
What's Up BARC? (continued)

BARC Field Day (continued) Thanks for all the youth who showed up! Maybe some future amateur radio operators! Some are licensed already!



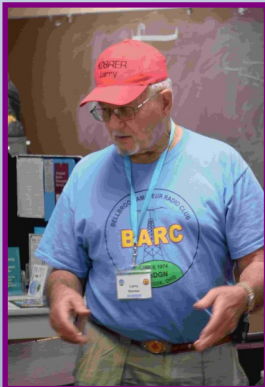
What's Up BARC? (continued)

BARC Field Day (continued) Thanks to all the operators to help color in the map of sections we contacted! Good job!



What's Up BARC? (continued)

BARC Field Day (continued) It was great seeing all of you this weekend! Thanks for turning up!



What's Up BARC? (continued)

BARC Swag from Emerio KE8JNQ

In April's 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](#): Income continues to trickle in with Kroger Rewards of \$63.25 being the main deposit. Expenses for Internet and Field Day totaled \$298.91. I expect more Field Day expenses in early July. We continue to be in excellent financial shape heading into our relocation.

There are a few leftover items in the clubhouse for members to bid on before the next Membership meeting. After that, the items will head to the trash as we downsize for our move.

Repeater: John Westerkamp, [W8LRJ](#): A reminder that when using Allstar or Echolink, if the repeater is in constant use and unable to drop the carrier, a local user will not be able to send a *73 to disconnect and the connection will remain active forever! I have since taken steps to prevent this, but if it happens to you, please text me at 937-271-3119 and I can disconnect the node for you. You can also use the Contact Form on the website to reach me.

Website: John Westerkamp, [W8LRJ](#): Summer is a great time to watch for Public Service Events and BARC Operating Afternoons including the Lions Club Parade and the Air Force Marathon. Watch the website and Newsletter for more information along with news about our summer relocation efforts.

And don't forget about the Member Forum where you can ask questions and make announcements. The website has a new section *Mentors and Experts*! You can find a list of experts by selecting *Mentors and Experts* under the *Membership* tab. Send your questions via the *Contact* page for our *Experts*!

Communication Center: John Westerkamp, [W8LRJ](#): The *ad hoc* Clubhouse Committee visited the Bellbrook school building where we have been offered space and did a rooftop survey to see what antennas would be supported there and on the existing tower. We are now planning out the antenna arrangements and coax routing into the radio room.

We are meeting regularly to inventory all our radio equipment and decide what we can bring with us to our new clubhouse. Leftover items from the Hamvention Flea Market are available in the clubhouse for club members to bid on.

Secretary: Jim Gifford, [N8KET](#): Your secretary has been busy this past month. In addition to recording planning notes and general meeting minutes, I have helped with publicity for Field Day. I emailed invitations to 15 contacts announcing the BARC Field Day activities. I also sent out press releases to newspapers in Xenia, Dayton, and Jamestown.

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 June 2025 I only have data for the last two Nets. For these 2 Nets, there were approximately 28 check-ins lasting 65 exciting and informative minutes. Topics range from Open Mike, Parks on the Air, what DX contacts have you made, memories of Father's Day, and Hamvention.

Our faithful Net Controllers are, Larry Darner KD8RER, Connie Gifford W8CSG, Jim Gifford N8KET, Tink Siwecki KD8NUA, John Westerkamp W8LRJ and Paul Sharp WS8R.

BARC Community Service Coordinator : Don Parker, [KB8PSL](#): Saturday 23 August, 2025 at 4:00 P.M. will be the annual Bellbrook Lyons Club parade. The BARC club provides communications for the parade and assists with parade line up on Vemco Dr. I'll be asking for volunteers to assist with the activities closer to the parade date.

This event is a great opportunity for members to work with a net control system operation.



BARC June 2025 Event Calendar

Tue July 1, 2025

6:30pm POTA SIG Meeting..... Where: BARC Clubhouse

Sun July 6, 2025

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

Tue July 8, 2025

11:15am Lunch Bunch..... Where: Beaver Creek Pizza Dive

Thu July 10, 2025

7pm Planning Meeting..... Where: New Public Meeting Room

Sun July 13, 2025

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

Thu July 17, 2025

7pm Membership Meeting Where: New Public Meeting Room

Sun July 20, 2025

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

Tue July 22, 2025

11:15am Lunch Bunch..... Where: Red Robin

Wed July 23, 2025

7pm Tech Night Where: BARC Clubhouse

Thu July 24, 2025

7pm Dessert and Movie Night Where: BARC Clubhouse

Sun July 27, 2025

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



BARC Movie and Dessert Night



Upcoming Dates & Selections for Our 2025 BARC Movie & Dessert Nights:

Date	Movie	Genre	Actors
July 24, 2025	Witness	Drama	Harrison Ford
August 28, 2025	TBD		
September 25, 2025	TBD		
October 23, 2025	TBD		

Past movies and Desserts:

January 23, 2025	Harvey (1950)	Carrot Cake & Carrots
February 27, 2025	Edge of Tomorrow (2014)	Macarons, Cheese cake
March 27, 2025	Paul, Apostle of Christ	Angel food cake & Holy Donuts
April 24, 2025	Jurassic World: Dominion	Dinosaur eggs & ice cream sundaes
May 22, 2025	Twisters (2024)	Pound cake with fruit & a twist of Whipped Cream
June 26, 2025	Fly Me to the Moon (2024)	

We are planning a full calendar of movies for the 2025 BARC Movie and Dessert Nights: September and October included! Due to our clubhouse situation the location for September & October movie nights is tentative. Our plan is to continue our BARC Movie & Dessert Nights after the move to a new clubhouse.

BARC movie nights are held on the **Fourth Thursday** of each month **January** through **October** at **7:00 PM in the BARC Clubhouse** (through August). 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!

We'll see you in July at the Movies!

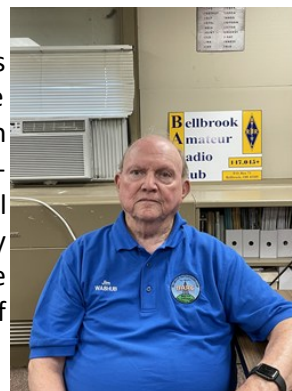
Tink
KD8NUA



Lunch Bunch

Jim Totten, [WA8HUB](#)

Hello my fellow lunch lovers. June 2025 is just about over. The saying April showers make May flowers. Apparently the “showers of April and May” were not enough. We have had and will continue to have June showers. It is time to renew our lunch meetings for this new month, July 2025. 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 same chart in last months FQ listing our current set of restaurants. The **July** restaurants are highlighted. I updated all of the dates for all of the restaurants on our list. The list is now all in 2025. 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.

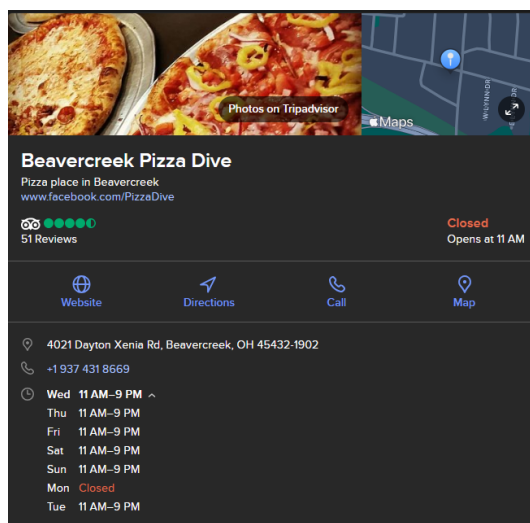
How did we do in June? On June 10, 2025 we had our lunch at an old favorite, Marion's Piazza at 1320 N. Fairfield Rd. Beavercreek OH. Plenty of pizza done to your choice. The menu is broader than pizza. I had their Rueben sandwich: Yum. Attendance was down with only 5 hearty eaters. Our second stop was Red Robin at 2671 Fairfield Commons Blvd. Also in Beavercreek OH. Famous for the bottomless fries. Elegant Sandwiches. You can't go hungry. They had a special of pulled pork burger with the fries. I had that, so did one other. Attendance was 5 but very engaging and all enjoy their meals.

Now July, 2025. Two lunches from the extreme of the list. July 8, 2025, the second Tuesday our venue is Beavercreek Pizza Dive, 4021 Dayton Xenia Rd. Beavercreek, OH 45432. Tele: (937) 431-8669. Great Pizzas, some already made and you can order. On July 22, 2025 comes one of our most favorite restaurants, Cherry House Cafe at 1241 Meadowbridge Dr. Beavercreek, OH 45434. Tele: (937) 320-6200. Elegant sandwiches, delicious quiches.

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

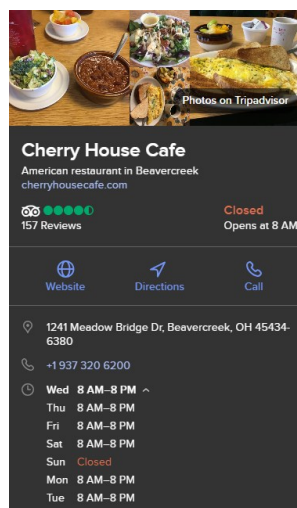
73, Jim, [WA8HUB](#)

[Tuesday, July 8th, 11:15am](#)



*Click pictures or hyperlinks
for more info and maps*

[Tuesday, July 22th, 11:15am](#)



(Continued on next page)

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Lunch Bunch 2025 List

Jim Totten, [WA8HUB](#)

Date	Restaurant	Address	City	Phone Number
04/08/25	Shawarma Grill	2844 Colonel Glenn Hwy	Fairborn, OH 45324	(937) 429-4959
04/22/25	Chic-Fil-A	5301 Cornerstone N Blvd	Sugarcreek Township, OH 45440	(937) 439-1700
05/13/25	Culp's Café	1000 Carillon Blvd	Dayton, OH 45409	(937) 293-2841
05/27/25	City Barbecue	2001 E. Dorothy Lane	Kettering, OH 45420	(937) 200-1006
06/10/25	Marion's Piazza	1320 N Fairfield Rd.	Beavercreek, OH 45432	(937) 429-3393
06/24/25	Red Robin	2671 Fairfield Commons Blvd.	Beavercreek, OH 45431	(937) 320-9800
07/08/25	Beavercreek Pizza Dive	4021 Dayton-Xenia Rd.	Beavercreek, OH 45432	(937) 431-8669
07/22/25	Cherry House Cafe 7:00 am to 2:00 pm	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 7:00 am to 2:30 pm	5245 Cornerstone North Blvd	Sugarcreek Twp, OH 45440	(937) 732-9013
09/23/25	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



If These Walls Could Talk

Jim Gifford, [N8KET](#)



Hello Henry, the club has done a good job making the clubhouse look nice. It's too bad they will have to move. We worked hard to set up this room 15 years ago



Well Fred, it was really fun getting the club started. Looks like they had a full house at the last meeting. **Oh, IF these walls could talk!**



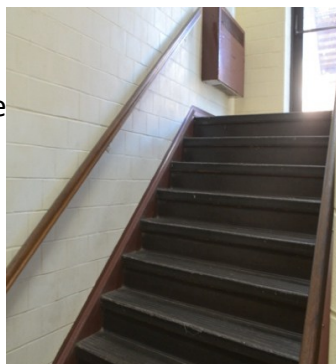
Hello BARC this is the Blue wall! I CAN talk! Look at all the great information I have hanging around.



The BARC members have really been busy over the last 15 years in our space. Look at these awards!



As a wall, I am proud of the building, which is about 100 years old! We don't look too bad for being a century old, do we?



These hallway walls have seen thousands of students walk (please don't run) through our halls. If the first students are still alive today they are 120 years old now!



If the Walls Could Talk (continued)



And now, think of all the BARC members who have met in these special rooms. We often reflect also on those no longer with us, who are special silent keys.



We know members have fun by the smiles of their faces.



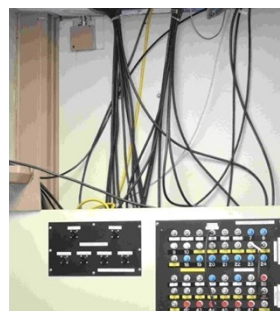
These walls have seen many interesting folks studying to become new hams too!



I've seen enthusiastic members testing radios and working on the bench, but frankly, the smell of solder makes my paint itch!



But Oh, we walls LOVE the smell of the popcorn! Make more popcorn Steve!



But the walls are fascinated by all the wires and connectors.



As a wall, I am impressed by the workmanship of the radio stations.



Jack Cotterman W8NRO, who designed this seal, was indeed very artistic! There were many great speakers who stood at this lectern in the past.



If the Walls Could Talk (continued)



Did you know there is a plaque that commemorates the day the club moved in among these beautiful walls?



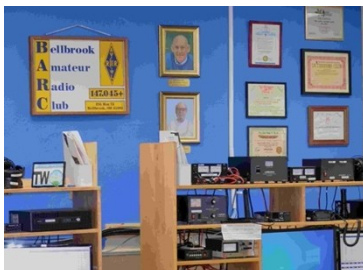
All of the walls howled with laughter the first time a member had to reach into the recess of this unit and adjust the heat. Oh the spiders!



Hey walls, say a nice word for me since no one ever pays attention to me. I just hang around and no one notices me. They all salute that *other* flag!



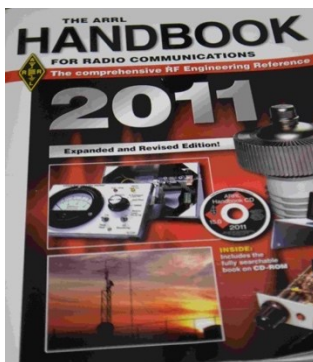
Well, my dear Ohio state flag, when they pledge allegiance to me, you are represented by one of the stars on my blue background, so in a way, they pledge allegiance to you too.



I am proud of the blue paint coat members have given me on the back wall. Outstanding is it not?



And the walls love when young people talk on the radio. Here is a YL helped by a long-standing club member.



When students sat in these rooms, they studied grammar books and basic math. Wow, today your books are really technical! No more Jack and Jill.



And never before has this classroom experienced such in-depth instruction, from a university professor, nonetheless!



If the Walls Could Talk (continued)



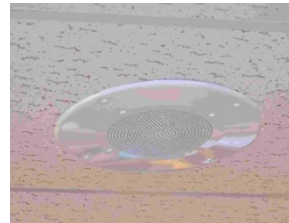
Speaking of walls, meet my cousins in what you call “THE DUNGEON.” Have you ever ventured into the depths of this underground man-made cave? Speaking of spiders—OH MY!



By chance, were you one of those skilled electronics experts who ran wires from the roof, and connected to a patch panel on my rear wall?



Did you help as these experts wired in the two patch panels?



Were you among those members who wired speakers so all could hear?



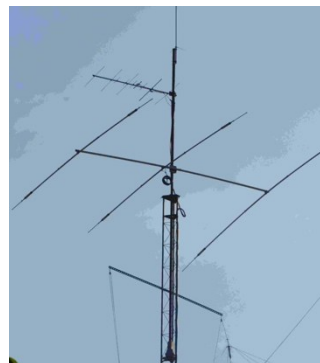
The walls on the third floor have spread rumors about how some of you “older” club members got stuck trying to climb out and in this window door, which leads to the roof. They laughed so hard, their paint cracked.



Third floor walls gasped when those same members clambered up a steep ladder outside the window. And then stumbled up that rickety stairway.



But our roof cousins (you know the hard concrete walls) resisted all efforts when members tried drilling big holes in our pretty skin.



But alas, you hams persevered and placed several antennas on our roof. Nice job, I might add.

If the Walls Could Talk (continued)



The walls have noticed that everyone is welcome at BARC meetings. There is something for all people of all skills.



We know why this banner hangs majestically on a proud wall, because BARC members have earned it.



Well, Fred, I guess walls do talk after all!



Henry, I know the walls at the new clubhouse will be equally impressed.



Vertical Antenna Analysis Using NanoVNA—Part 2

Ray Hitt, [N8VMX](#)

In Part one of this series ([June 2025 Full Quieting](#)), I provided some NanoVNA analysis of a 17-foot telescopic antenna, the Opek-OP-SS-17F that I bought at Hamvention. I do have other vertical antennas I want to analyze. This month I have two very similar foldable “fishing-pole” military antennas, the **AN-131A** 8-section manpack whip and **AT-271A** 7-section manpack whip.

Background: These two antennas are “similar but different”. What do I mean by this? Read on...

The **AN-131A** is an 8-section antenna that is around 11 feet long when assembled. It collapses to around 17” long when all sections are broken down and folded together. It has a spring loaded string or wire through the center to keep all of the sections together when broken down. The AN-131A was used in WW-II with the BC-1000 radio. It was phased out around the end of WW-II.



Figure 1 – AN-131A

The **AT-271A** is a 7-section antenna that is around 9.35 feet long and has spring-loaded sections that also collapse to 17” when folded together. It started use around the end of the BC-1000 era in WW-II, then was used with the PRC-8,9,10 (Korean War), PRC-25, PRC-77 (Vietnam War), continuing into the early 1980s when the SINCGARS radio came out.



Figure 2 - AT-271A

These antennas look nearly identical except that the AT-271A has 7-sections and the AN-231A has 8. Since the sections are roughly the same size for both antennas, the AT-271A is shorter by around 17 inches. For hams, this translates to a higher resonant frequency, roughly 1-2 MHz higher. The AN-131A is more rare today than the AT-271A which replaced it, probably because it's much older.

Comparison of ground plane versus radials: The Big Kansas Coil comes equipped with three 33' radials. I conducted measurements with these radials, also with a pair of 43"x118" Faraday cloth ground planes mounted side by side (this was purchased as a [43" x 236" cloth from Amazon](#), then cut into two equal strips). Out of curiosity, I also conducted measurements with both Faraday cloth and radials. When both radials and Faraday cloth were used, the radials had very little effect on the VSWR, the Faraday cloth dominated the measurements. In late June, I did additional measurements using a single 43" x 118" Faraday cloth, wanting to see if I could get by with less. The SWR performance was slightly worse than it was with two of the Faraday cloths side-by-side, but it was still quite good.



Vertical Antenna Analysis—Part 2 (continued)

The first measurement was the antennas fully extended. The results are shown in *Figures 3 and 4*. *Figure 3* is the full 5-30 MHz frequency range, while *Figure 4* is zoomed in to the 18-20 MHz frequency range where these antennas resonate. The dashed lines are for radials and the solid lines are for Faraday cloth.

Results: For these antennas (and all antennas tested so far) Faraday cloth had superior SWR performance over radials. The SWR got as low as under 1.1:1 for Faraday cloth, where it got as low as 1.9:1 for radials. The resonant frequency for the AN-131A was 2 MHz lower than the AT-271A because it was one 17" segment longer than the AT-271A.

Notes: These antennas were measured on May 11th for the AN-131A and June 2nd for the AT-271A. On these days, the antennas were mounted with a bayonet connector on top of a spring. These added several inches to the antennas compared to an antenna mounted straight to the Big Kansas coil, lowering the resonance frequency.

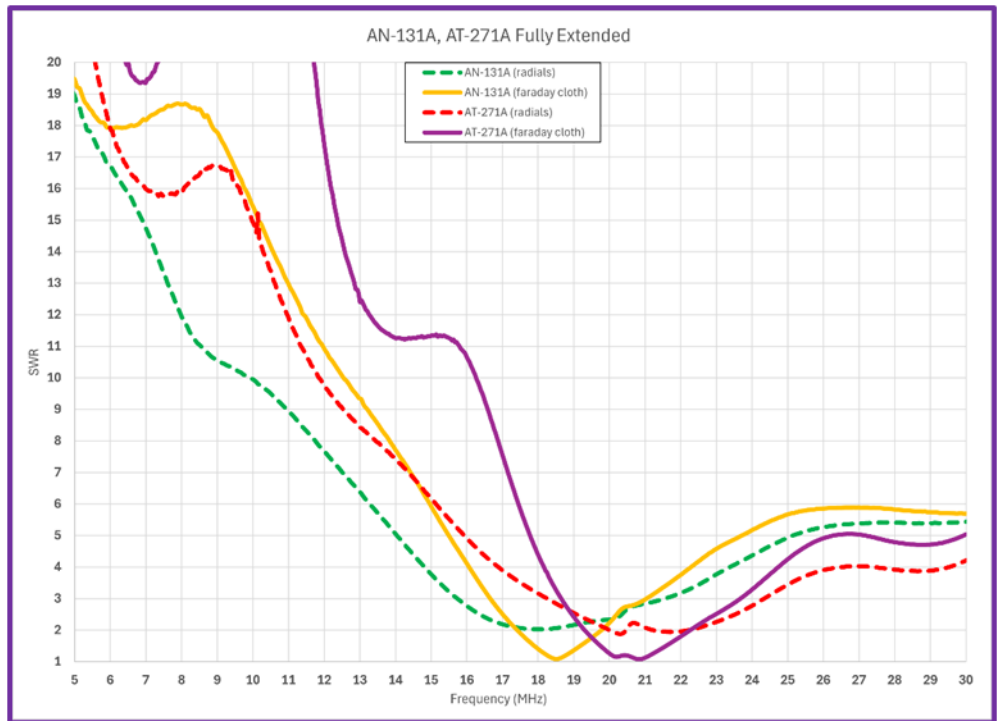


Figure 3

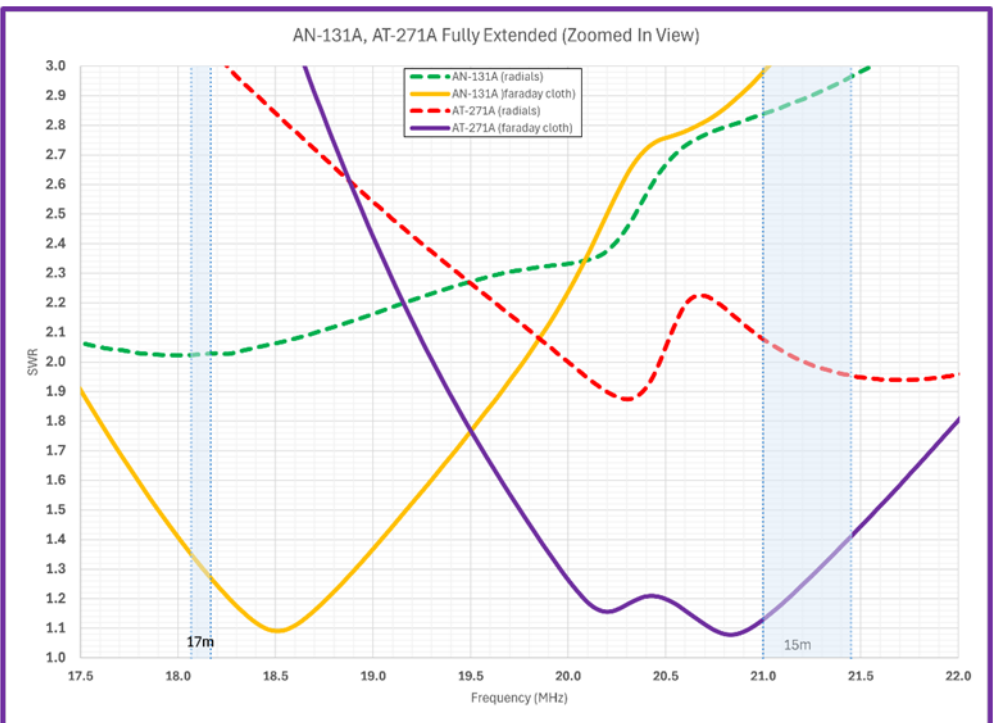


Figure 4



Vertical Antenna Analysis—Part 2 (continued)

Raising the Resonant Frequency:

With the AN-131A and AT-271A, the resonant frequency can be raised by folding back the top section, top 2 sections, and so on. I conducted several SWR measurements of the AN-131A folding back 1,2,3 or 4 of the 8 sections. I then measured the AT-271A folding back 1,2 or 3 of the 7 sections. *Figures 5 and 6* show the resonant frequency shift as more and more sections are folded back. Notice that around 20 MHz there is a resonance anomaly that may be due to my two Faraday cloths interacting.

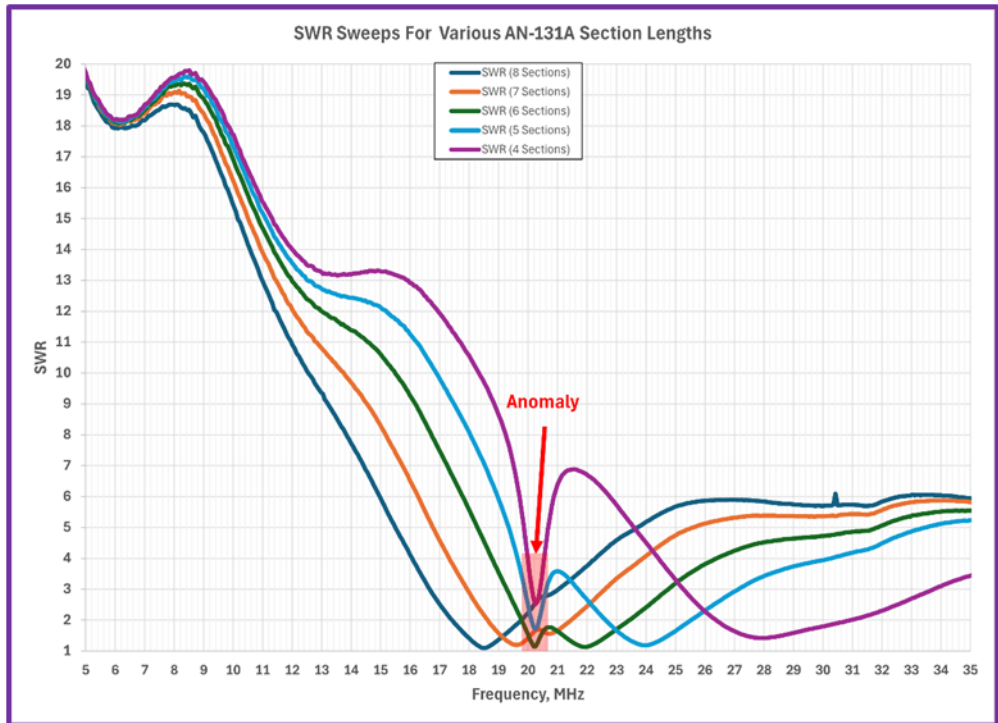


Figure 5

I came up with a more useful way to display all of this information. *Figure 7* (next page) plots the resonant frequency for 4, 5, 6, 7, and 8 sections for the AN-131A and 4, 5, 6, and 7 sections for the AT-231A.

Looking at *Figure 7*, the colored numbers show you how many sections are being used (the remainder being folded back on itself). With the exception of **4** (for the **AN-131A**) and **7** (for the **AT-271A**), the antenna is

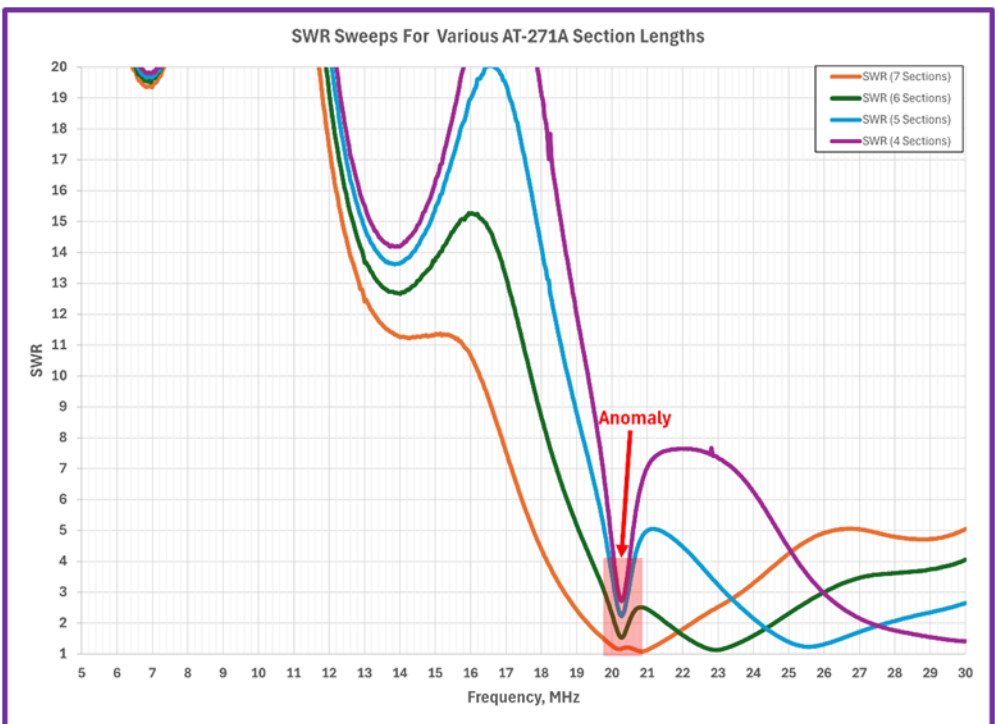


Figure 6



Vertical Antenna Analysis—Part 2 (continued)

not a good match in any of the ham bands. What I would do in that case is pick a number just above the highest frequency I want to use, and use the Big Kansas Coil to correctly match to the band, i.e. pull the resonance down in frequency by adding the coil inductance. It should only take a few turns of the coil to match the antenna to the nearest ham band.

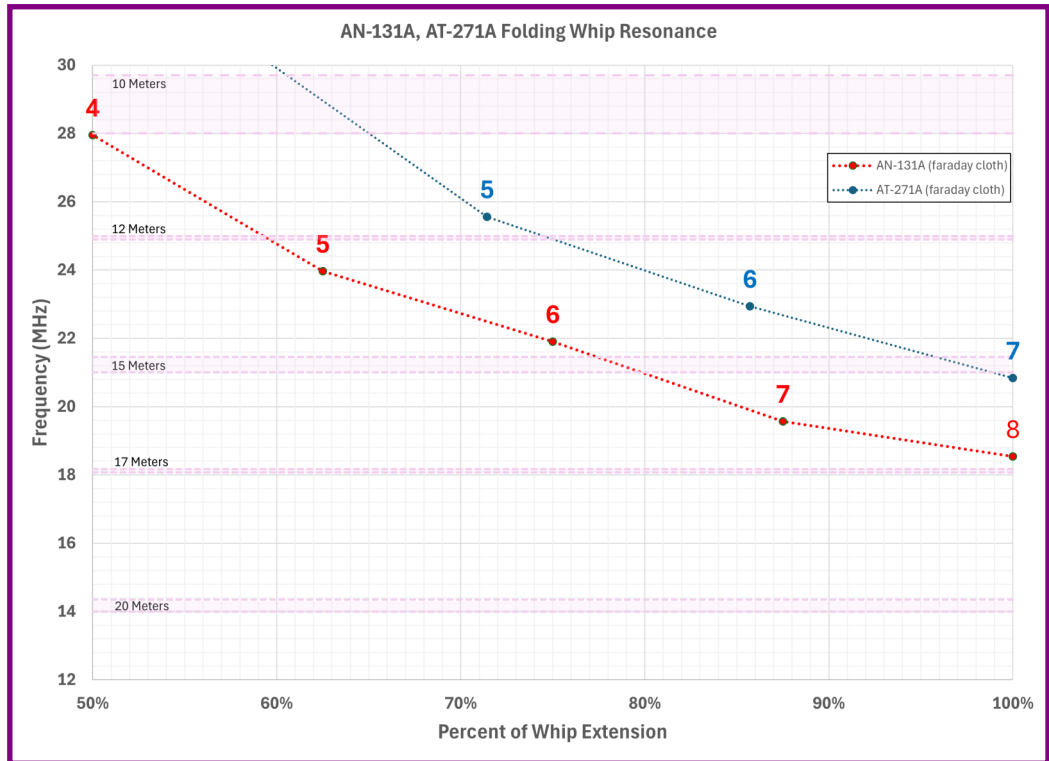


Figure 7

Lowering the Resonant Frequency:

With the Big Kansas Coil attached to the base of either the AN-131A or AT-271A antennas, lowering the resonant frequency is as simple as moving the coil tap from 0 (bypass) to 40 (max coil). With all of the vertical antennas I own, this coil can move the resonant frequency into the 80-meter band. No guarantee these two antennas will work very well that low in frequency though!

I used the NanoVNA to measure both the AN-131A and AT-271A SWR fully extended with the Big Kansas Coil set to tap 0 (bypassed) to show the baseline antenna performance. I then repeated the measurements at coil taps 5, 10, 15, ... to 40 (maximum coil).

These measurements were made on 21 June using a single 43" x 113" Faraday cloth instead of the two cloths used in early June and late May. The SWR suffered only slightly and it was a lot easier to set up. The resonance anomaly that I saw in late May and early June didn't appear either leading me to believe using two Faraday cloths may be the problem.

I have two charts showing the resonant frequency for all of these coil measurements, one for the **AN-131A** (Figure 8), the other for the **AT-271A** antenna (Figure 9). You can see as you move to higher coil numbers, the resonance goes down all the way from 21 MHz to just over 3 MHz.



Vertical Antenna Analysis—Part 2 (continued)

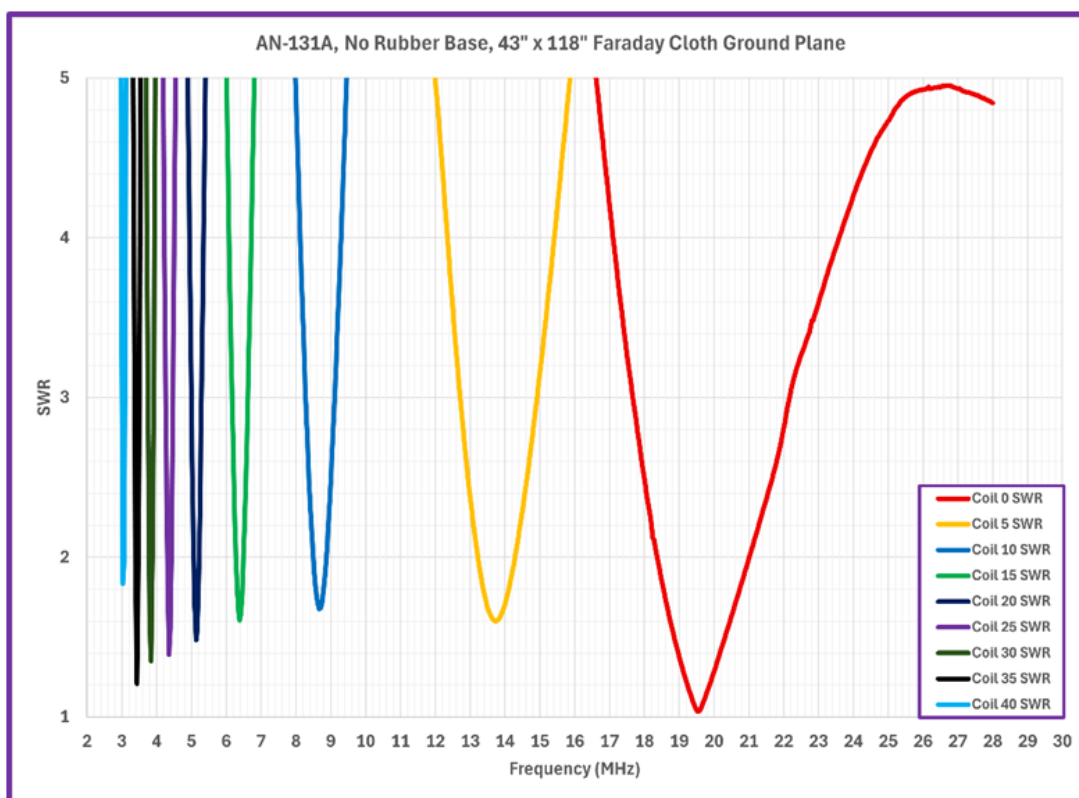


Figure 8

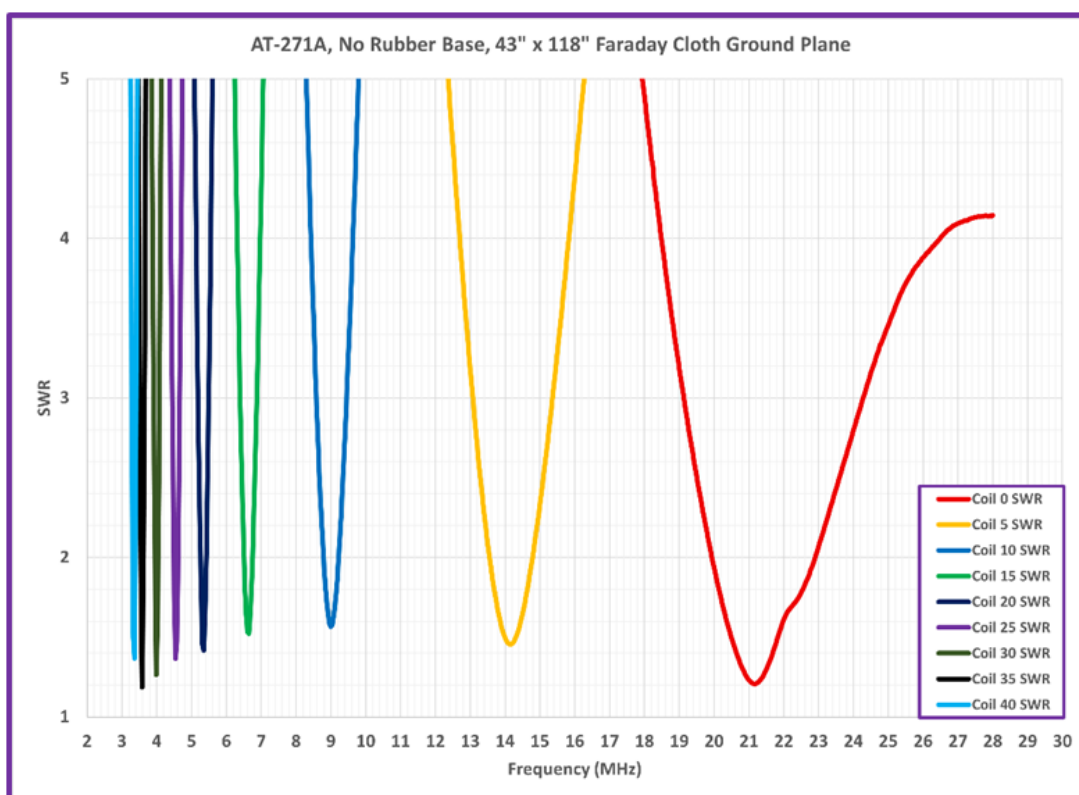


Figure 9



Vertical Antenna Analysis—Part 2 (continued)

Figure 10 was made by plotting the resonant frequency versus coil setting. Both antennas are on the same chart. This would be a useful chart to use in the field to get the exact coil setting for whatever frequency you want to use (for these two antennas specifically).

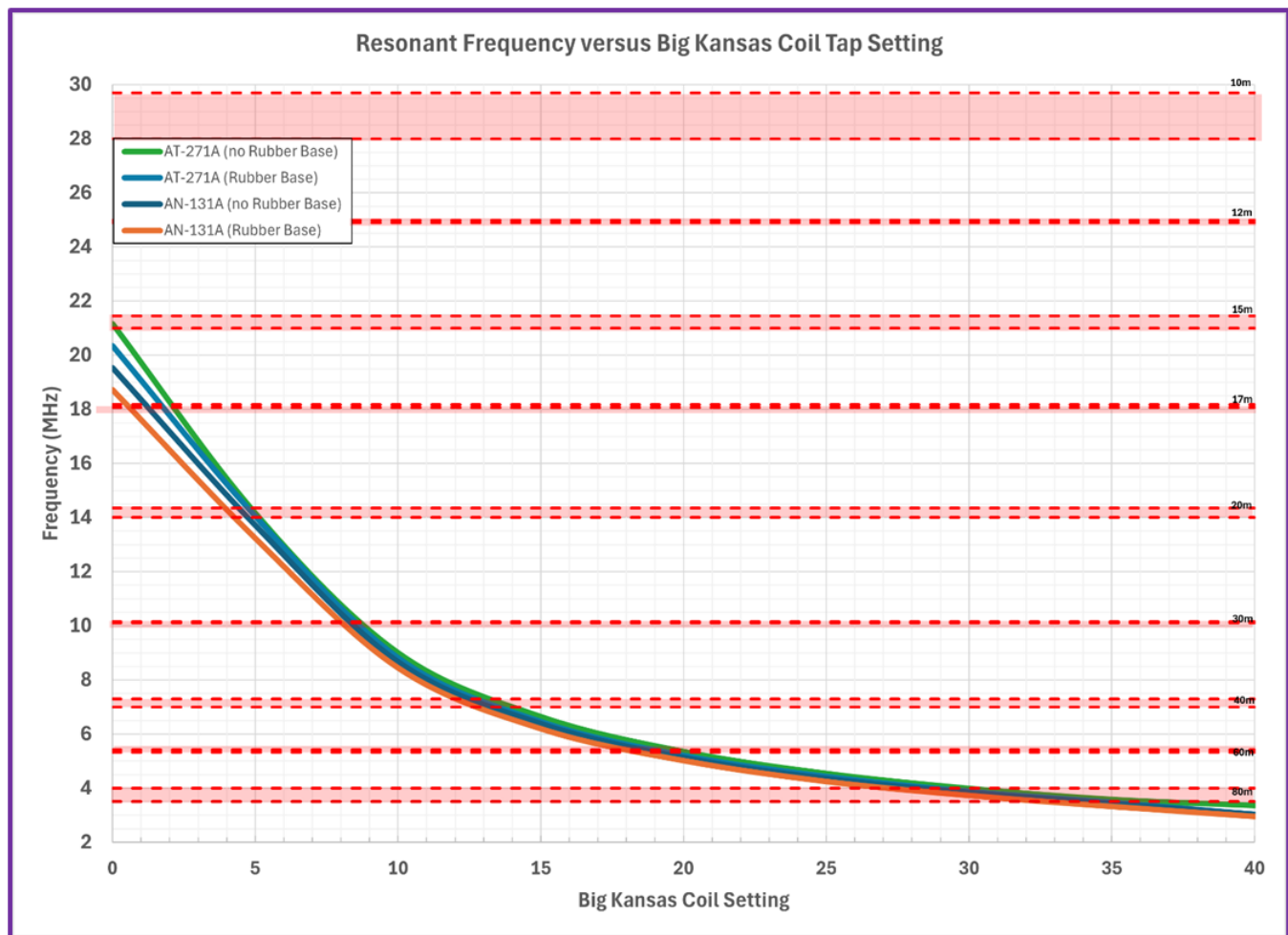


Figure 10

Figure 10 is probably the most versatile chart for me to use when operating POTA. I might even laminate it! I just look up the band I want to use and see where the lines intersect the band, then read the coil number. Of course, you have to manually tweak it a little with your NanoVNA or RigExpert to make sure you get the lowest SWR. Notice there are four antenna configurations on this chart; the **AN-131A** with or without the optional rubber base, and the **AT-271A** with or without the same optional rubber base. Once I finish taking coil measurements for my other antennas, there's no reason I couldn't put them all on this same chart – as long as it's readable!

Next month I hope to conclude this series by measuring my 108" CB whip and my 21' whip from an old SCR-506 Radio Set. It's supposed to be 25' but I am missing a segment! A true bear to set up but it can work those lower frequencies really well.

73, Ray [N8VMX](#)



Special Event Stations for July

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. We hit the lottery this month with many exciting SES. There are SES commemorating: The 13 Colonies, Scopes's Monkey Trail, state fairs, Apollo 11 live TV, farm equipment and Alcatraz.

07/01/2025 | 13 Colonies Special Event. Jul 1-Jul 8, 1300Z-0400Z, WM3PEN, Philadelphia, PA. Holmesburg Amateur Radio Club. 7.276 14.276. QSL. Holmesburg Amateur Radio Club, 3341 Sheffield Ave, Philadelphia, PA 19136. Additional info: WM3PEN on QRZ.com or WM3PEN.org 13colonies.us

07/04/2025 | The White House Communications Agency Amateur Radio Club Independence Day 2025 Celebration Special Event. Jul 4-Jul 7, 0000Z-0000Z, W0H, Jackson, OH. White House Communications Agency Amateur Radio Club. 3.875 7.275 14.250 28.550. Certificate. Lowell Yates, 6809 Four Mile Rd, Jackson, OH 45640. Help the White House Communications Agency Amateur Radio Club celebrate our nations independence <https://whitehousecomms-arc.org>

07/05/2025 | Colonial Williamsburg Special Event Station. Jul 5, 1400Z-2000Z, K4RC, Williamsburg, VA. Williamsburg Area Amateur Radio Club. 7.265 14.265. Certificate & QSL. QSL Manager, WAARC, P.O. Box 1470, Williamsburg, VA 23187. Celebrating the 249th anniversary of the signing of the Declaration of Independence in 1776. For QSL send your QSL and SASE to QSL Manager, WAARC, PO Box 1470, Williamsburg, VA 23187. The Virginia Historic Triangle Certificate is available for working the Jamestown, Williamsburg, and Yorktown Special Event Stations. You don't need to make these contacts in the same calendar year. For a Certificate send QSO info from the three stations to qslmgr@k4rc.net. For event info: <https://www.k4rc.net/events/special-event-stations> <https://www.k4rc.net>

07/05/2025 | Scope's "Monkey" Trial - 100th Anniversary. Jul 5-Jul 19, 1400Z-1400Z, W4B, Dayton, TN. Rhea County Amateur Radio Club. 14.265 14.045 7.205 7.045. Certificate. Rob Frailing, 664 Lone Mountain Dr., Dayton, TN 37321. 100th anniversary of the trial of John Scope, in Dayton, TN, for teaching evolution. <https://www.facebook.com/RheaCountyAmateurRadioClub>

07/11/2025 | California State Fair. Jul 11-Jul 27, 0000Z-2359Z, K6C, Sacramento, CA. ARRL Sacramento Valley Section. 7.290 14.290 21.390 28.390. Certificate. Carol Milazzo, PO Box 665, Citrus Heights, CA 95611-0665. <https://www.arrlsacvalley.org>



Special Event Stations for July (continued)

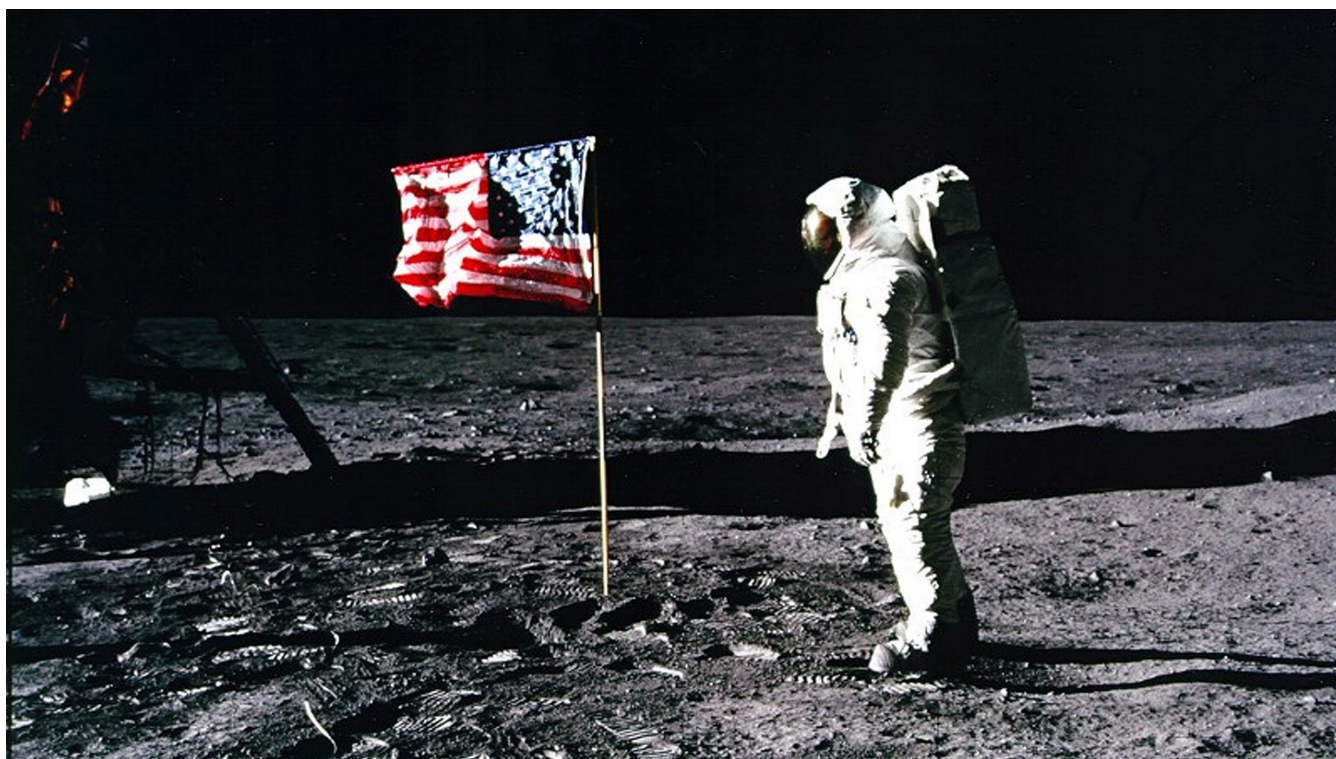
07/12/2025 | US Independence Day. Jul 12, 1600Z-2300Z, NI6IW, San Diego, CA. USS Midway Museum Ship. 14.320 7.250 14.070 PSK31 DSTAR on Papa System Repeaters. QSL. USS Midway Museum Ship COMED

07/18/2025 | Viet Nam Veterans Memorial Wall Replica. Jul 18-Jul 20, 1400Z-2200Z, W4L, Antioch, IL. Wisconsin and Illinois Radio Enthusiasts (WI9RE). 7.250 14.250. QSL. QSL will be sent via FCC ULS, or, WIRE , c/o 25395 W. Richmond Ave., Antioch, IL 60002. July 18 and 19, 1400Z-2200Z daily, and July 20 1800Z-2200Z.

07/18/2025 | W3A Commemoration of Apollo 11 Live TV From the Moon that Allowed the World to See Mankind's First Steps on the Lunar Surface. Jul 18-Jul 21, 1300Z-2200Z, W3A, Hunt Valley, MD. Amateur Radio Club of the National Electronics Museum (ARCNEM). 14.269 14.069 7.269 7.069. Certificate & QSL. ARCNEM, 338 Clubhouse Road, Hunt Valley, MD 21031. Amateur Radio Club of the National Electronics Museum (ARCNEM) will operate W3A commemorating live TV from the moon that allowed the world to see mankind's first steps on the lunar surface. One of the remaining Westinghouse cameras is on display at the National Electronics Museum. Operation on 80M (3.869, 3.569) and digital modes possible during event. Frequencies +/- according to QRM. QSL and Certificate available via SASE; details at ww-2.us ww-2.us

07/19/2025 | NS Savannah Launch Anniversary. Jul 19, 1330Z-2100Z, K3S, Port of Baltimore, MD. Nuclear Ship Savannah Amateur Radio Club. 7,14,18,21,28. QSL. Ullis Fleming, 980 Patuxent Rd, Odenton. Check spotting networks for frequency. See QRZ.com info for Savannah Award qrz.com/db/k3s

07/20/2025 | Apollo 11 Celebrated. Jul 20, 1330Z-1900Z, K2CAN, Garden City, NY. Long Island Mobile Amateur Radio Club. 14.240 7240 15.350. QSL. LIMARC, For digital QSL, send information to: k2knb@limarc.org, or QSL with SASE to: P.O. Box 392, Levittown, NY 11756. <https://www.qrz.com/db/>



Special Event Stations for July (continued)

[K2CAM](#)

07/24/2025 | Central Kentucky Antique Farm Machinery Show. Jul 24-Jul 26, 0400Z-1000Z, K4HSN, Paris, KY. Harrison County Amateur Radio Club. 28.550 14.300 7.250. QSL. K4HSN c/o C.J. Clifford, 58 Ky Highway 3003, Cynthiana, KY 41031. Commemorative QSL available with SASE. www.qrz.com/db/k4hsn

07/31/2025 | W8LKY Special Event - Birthplace of Ohio's State flower, the Scarlet Carnation. Jul 31-Aug 10, 0000Z-2359Z, W8LKY, Alliance, OH. Alliance ARC. 7.045 7.220 14.045 14.250. Certificate. Certificate available, by email to, ses@w8lky.org, OH 44650. W8LKY.org

08/01/2025 | Antique Power Show. Aug 1-Aug 3, 1300Z-2359Z, W9R, Beaver Dam, WI. Rock River Radio Club. 14.275 28.375 7.275 21.275. Certificate & QSL. Rock River Radio Club, PO Box 26, Juneau, WI 53039. To get a nice Certificate, send a QSL card, two stamps and a \$1.00. <https://www.dcapclub.org>

08/01/2025 | Indiana State Fair. Aug 1-Aug 17, 0000Z-2359Z, W9ISF, Indianapolis, IN. Indiana State Fair ARC. 7.240 14.240 21.300. QSL. Ken Bandy, 7405 E County Road 900 N, Brownsburg, IN 46112. <https://www.indianastatefair.com/p/state-fair>

08/01/2025 | Pro Football Hall of Fame Enshrinement Festival. Aug 1-Aug 4, 0400Z-0400Z, W8AL, Canton, OH. Canton Amateur Radio Club. 7.260 14.260 21.320 28.400. Certificate. Canton ARC, PO Box 8673, Canton, OH 44711-8673. On air times, bands, and modes subject to operator's availability. Watch for spots & digital modes. <https://w8al.org>

08/02/2025 | Alcatraz. Aug 2, 0130Z-0830Z, W6P, Vacaville, CA. Vacaville Amateur Radio Club (W6VVR). 7.200 MHz 14.250 MHz 28.500 MHz. QSL. Art Aronsen, 7319 June Bug Lane, Vacaville, CA 95688. There will be 3 stations on Alcatraz Island during times stated. All stations will be on SSB on battery. w6vvr.net

Answers to Amateur Radio Test Questions on pages 32-34

[Technician \(pg 32\)](#)

T5D09 (C)

T6C06 (B)

T2A06 (A)

T4B03 (A)

[General \(pg 33\)](#)

G2C01 (D)

G4E09 (B)

G5B02 (C)

G3A12 (B)

[Amateur Extra \(pg 34\)](#)

E1C08 (B) [97.213]

E1D02 (B) [97.211(b)]

E9B03 (D)

E7C01 (D)



Amateur License Test Questions

Answers are on [page 31](#)

Technician

T5D09

What is the current through a 24-ohm resistor connected across 240 volts?

- A. 24,000 amperes
- B. 0.1 amperes
- C. 10 amperes
- D. 216 amperes

T6C06

What is component 6 in figure T-2?

- A. Resistor
- B. Capacitor
- C. Regulator IC
- D. Transistor

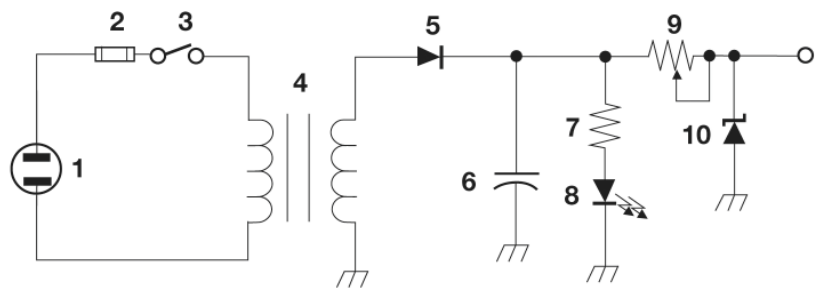


Figure T-2

T2A06

Which of the following is required when making on-the-air test transmissions?

- A. Identify the transmitting station
- B. Conduct tests only between 10 p.m. and 6 a.m. local time
- C. Notify the FCC of the transmissions
- D. All these choices are correct

T4B03

How is squelch adjusted so that a weak FM signal can be heard?

- A. Set the squelch threshold so that receiver output audio is on all the time
- B. Turn up the audio level until it overcomes the squelch threshold
- C. Turn on the anti-squelch function
- D. Enable squelch enhancement



Amateur License Test Questions (continued)

Answers are on [page 31](#)

General

G2C01

Which of the following describes full break-in CW operation (QSK)?

- A. Breaking stations send the Morse code prosign "BK"
- B. Automatic keyers, instead of hand keys, are used to send Morse code
- C. An operator must activate a manual send/receive switch before and after every transmission
- D. Transmitting stations can receive between code characters and elements

G4E09

What is the approximate open-circuit voltage from a fully illuminated silicon photovoltaic cell?

- A. 0.02 VDC
- B. 0.5 VDC
- C. 0.2 VDC
- D. 1.38 VDC

G5B02

How does the total current relate to the individual currents in a circuit of parallel resistors?

- A. It equals the average of the branch currents
- B. It decreases as more parallel branches are added to the circuit
- C. It equals the sum of the currents through each branch
- D. It is the sum of the reciprocal of each individual voltage drop

G3A12

What does the K-index measure?

- A. The relative position of sunspots on the surface of the Sun
- B. The short-term stability of Earth's geomagnetic field
- C. The short-term stability of the Sun's magnetic field
- D. The solar radio flux at Boulder, Colorado



Amateur License Test Questions (continued)

Answers are on [page 31](#)

Amateur Extra

E1C08

What is the maximum permissible duration of a remotely controlled station's transmissions if its control link malfunctions?

- A. 30 seconds
- B. 3 minutes
- C. 5 minutes
- D. 10 minutes

E1D02

Which of the following may transmit encrypted messages?

- A. Telecommand signals to terrestrial repeaters
- B. Telecommand signals from a space telecommand station
- C. Auxiliary relay links carrying repeater audio
- D. Mesh network backbone nodes

E9B03

What is the front-to-side ratio of the antenna radiation pattern shown in Figure E9-1?

- A. 12 dB
- B. 24 dB
- C. 18 dB
- D. 14 dB

E7C01

How are the capacitors and inductors of a low-pass filter Pi-network arranged between the network's input and output?

- A. Two inductors are in series between the input and output, and a capacitor is connected between the two inductors and ground
- B. Two capacitors are in series between the input and output, and an inductor is connected between the two capacitors and ground
- C. An inductor is connected between the input and ground, another inductor is connected between the output and ground, and a capacitor is connected between the input and output
- D. A capacitor is connected between the input and ground, another capacitor is connected between the output and ground, and an inductor is connected between the input and output



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*.**



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.



Misc 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, 444.875 (+) 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 2030 Greene County DMR Net Primary: 444.875+, Color Code 13

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.

