



Full Quieting

The Official Journal of The Bellbrook Amateur Radio Club



November 2023 — Issue 27

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From the President & Editor

Greetings from your President/Editor,

I'm writing this on Halloween and I can tell the seasons are changing, there's quite a new chill in the air. Early reports are for a cold winter, I sure hope they're off the mark on that one.

BARC's been busy this year, this will slow down the next couple of months as we take more time with our families, give Thanks for what we have, and celebrate Christmas which is the ultimate gift.

I appreciate you all, even though it may not seem like it when I'm cajoling you all for articles or to serve on BARC open positions. I know you all are capable of so much if you gave yourself a chance. This is the club to join if you want to learn and try new things!

An example of that is our Build-A-Repeater project, being run by Tim, N8NQH. Our last class is the Monday (20th) just before Thanksgiving, where we should put it on the air for the first time. Join us if you can.

POTA is still in season, we have meetings covering past POTAs, planning new ones, and technical topics to make POTA easier. The Flex radio user's group is holding a session in November also. Worth going to even if you don't have or can't afford a Flex.

If any of this is interesting to you, plan on attending, no charge! If you think you might be interested, go ahead and try it out anyway. It's important to find out what you are good at and what you don't want to do anymore after giving it a try. When I worked in the lab, we would "test 'till failure", to find out the limits of a new capability. The same goes for hams, I think.

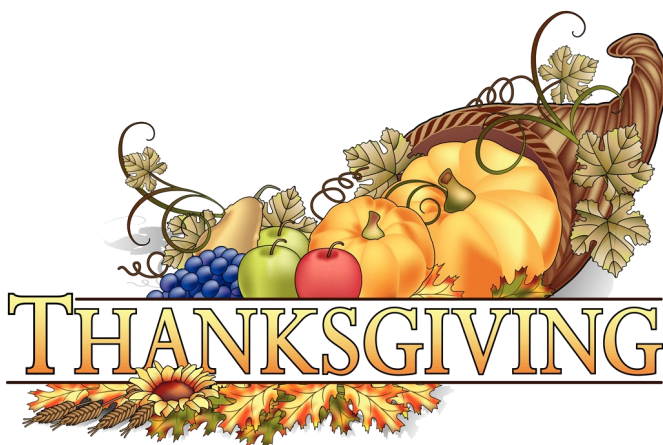
Happy Thanksgiving all,

73, Ray Hitt, N8VMX

BARC President & Full Quieting Editor

**Your views are important to BARC and to
Full Quieting**

**Please make yourself heard at the club,
via [email](#), and on the air...**



2023 BARC Officers and Directors

President: Ray Hitt, [N8VMX](#)

Vice President: Glenn Rodgers, [KE8LZD](#)

Secretary: Jim Gifford, [KD8APT](#)

Treasurer: John Westerkamp, [W8LRJ](#)

Senior Director: Don Parker, [KB8PSL](#)

Junior Director: Jim Lusk, [KC8EFD](#)

2023 Coordinators

Clubhouse: Jim Lusk, [KC8EFD](#)

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

Contesting: Ken Gunton, [W8ASA](#)

Education: Paul Sharp, [WS8R](#)

Emergency Preparedness: *Vacant*

Field Day: *Vacant*

Full Quietening 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](#)

TechNight/Workbench: Trevor Clarke, [K8TRC](#)

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 Sugar creek 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?



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 BARC Members!

Tom O'Hara, W9TO, Amateur Extra

Dave Morter, W8GZL, Advanced

Congratulations New Amateur Radio Operator!

Tony Moore, KE8ZJN, Technician

KD8JQE's POTA setup

Darryl Fowler, KD8JQE, is working out his POTA setup here. Ray Hitt, N8VMX, sold Darryl an extra 100W solar panel a few months ago and here's Darryl putting it back in service for his POTA setup.



Darryl is using a Bioenno 15Ah LiFePo4 battery (just like KAØAZS' on page 5), adding a Bioenno 12/24/48V, 30A solar controller to power his Yaesu FT-450D and Buddypole. Darryl was able to work a POTA contact in New York, the Erie Canalway National Heritage Area (K-8095). Darryl had some trouble reducing the SWR, so we'll stay tuned to here if he's solved that or needs some POTA working group consultation.

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What's Up BARC? (continued)

BARC Family and Friends Chili Dinner

On Thursday October 19, 2023 we held our Annual BARC Family & Friends Chili Dinner. BARC club members didn't disappoint our palates, there was a wide variety of chili and stew, and even homemade chicken empanadas. Pies and cake for dessert too. Who could say no to this?

Thanks to Tink for setting up everything! And thanks to all who brought in goodies to eat. Can't wait until the next Chili Dinner already. Maybe we need this a couple times a year!



What's Up BARC? (continued)

KAØAZS Battery Box



Just completed my latest project, a battery box for my [Bioenno 15Ah LifPo4 battery](#).

[MTM 30cal Tall plastic ammo can](#). The MTM factory is here in Dayton, so I just had to call their office, tell them the type and color I wanted, and picked it up the next day. No shipping!

APP port and switch from Quicksilver Radio. Switch lights up when on.



Used spray in expanding foam for the packing inside the box. Covered the battery and charger in zip-lock bags and trimmed away any excess after it sat for a few days.



Final picture is a comparison between this box and the one containing a 17Ah SLA I've been using for 20 years or so (I think I'm on my 3rd battery there).

73 Randy KAØAZS





BARC Cap, T-Shirt, Polo Shirt, Sweatshirt Orders

Jim Gifford, KD8APT, will begin taking orders for BARC hats, T-shirts, polos and sweat shirts shortly. We'll have samples at the next General meeting for you to look at. They are produced locally by Logos@Work. The cost per item depends on how many are ordered, and there are separate charges for the bare hat/shirt plus embroidery charges for the hat-and polo shirt for your call-sign or other customization. The sweatshirts are screen printed and there is a setup and teardown charge for that too. More detail will be presented at the General Meeting in November.

1130 DMR Net—Dust off those DMR Radios!

Larry Baker, KB8EMD, started the **1130 DMR Net** in mid-April. This net meets on DMR (Brandmeister) talk group 310557 Monday through Friday at 1130am Eastern Time.

The **1130 DMR Net** is a very informal net with rotating net control, currently it's been John W8LRJ, Ray N8VMX, Jim WA8HUB, and once in awhile Larry KB8EMD, but more are welcome to join in. The topic is DMR, amateur radio in general, what you've been up to, or whatever's on your mind. Nets usually run 30 minutes, but can go up to an hour if there's lively discussion. Unlike the other DMR nets where you check in and that's it, we go back around and give everyone the floor for as long as they like. This is a good way to make sure your DMR skills are up to par, your audio's OK, your hot spot isn't flaky, and so on. And it gives you a chance to get to know your amateur radio fellow travelers a little better. Please join us!

This talk group is accessible many ways; through your own DMR Wi-Fi hotspot, through Tim Procniar, N8NQH's, East repeater in Bellbrook, Tim's West repeater near Carillon Park, or a local Brandmeister repeater near you ([see map](#)). Setting up your DMR radio to talk on this talk group is explained quite well on [Tim's website](#). If you need technical help, please contact [W8LRJ](#), [N8NQH](#), [KB8EMD](#) or [N8VMX](#) for assistance, we'd be glad to help.



BARC November 2023 Event Calendar

Thu Nov 2, 2023

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

Sun Nov 5, 2023

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

Tue Nov 7, 2023

6:30pm POTA SIG Where: BARC Clubhouse

Wed Nov 8, 2023

6:30pm DC Circuit and Micro Transceiver Interest Group Where: BARC Clubhouse

Sun Nov 12, 2023

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

Mon Nov 13, 2023

6:30pm Flex Users Group..... Where: BARC Clubhouse

Tue Nov 14, 2023

11:15am Lunch Bunch..... Yaffa Grill

Thu Nov 16, 2023

7pm Membership Meeting Where: BARC Clubhouse

Sat Nov 18, 2023

All day ARRL Sweepstakes (SSB)

Sun Nov 19, 2023

All day ARRL Sweepstakes (SSB)

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

Mon, Nov 20, 2023

7pm Build-A-Repeater (BAR) class Where: BARC Clubhouse

Thu Nov 23, 2023

Thanksgiving

Sun Nov 26, 2023

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



Officer, Director, and Coordinator Inputs

BARC has six Officers and Directors and 15 Coordinators

- Some have monthly columns, and the rest can use this space to let you know what they're doing and what's happening in their areas of responsibilities.
- Feel free to contact them if you have specific requests. All their emails are listed and hyperlinked.

Secretary: Jim Gifford, [KD8APT](#): As secretary I completed notes and minutes for planning and the regular membership meeting. I also contacted Logos at Work and obtained a price list of shirts, sweatshirts, and hats. I provided Ray Hitt a copy for Full Quieting, and I'll provide details at the membership meeting. I am also obtaining details from the FCC and ARRL on setting up a special event station for the club in 2024.

Treasurer: John Westerkamp, [W8LRJ](#): Not a lot of activity since the September report, but November should start seeing membership dues renewals so income should start climbing again. We did receive \$20.77 interest on our CD investment so that is tracking the \$250 yearly estimated income. Expenses included the normal Spectrum Internet and a few checks for refreshments from the Fall Field Day and the September Membership meeting. We continue to be in great financial shape.

It is that time again! Dues renewal begins in November every year. Yearly membership is \$15 (\$18 per family). You can send a check made out to BARC to the club P.O. Box 73, Bellbrook, OH 45305, or pay via PayPal by sending to w8lrj@arrl.net. When using PayPal, be sure to select for *Friends and Family* since BARC does not have to pay the PayPal fee. Thank you so much for your support!

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 5 weeks in October 2023 there were approximately 72 check-ins lasting 177 exciting and informative minutes. Topics range from Open Mike, Parks on the Air, what resources to you most often use for ham radio, how did you initially get interested in ham radio and tell us about any exciting contacts you made. We often have non BARC members checking in to enjoy the Net.

Our faithful Net Controllers are, Larry Darner, KD8RER, Joe Menchaca KE8UUQ, Tink Siwecki KD8NUA, Paul Sharp WS8R, and John Westerkamp W8LRJ. Jim Dean, W8UD, is an alternate.

Repeater Network and Nodes: John Westerkamp, [W8LRJ](#): Tim Proconiar, N8NQH, presented a BARC Build-A-Repeater course over 4-5 classes in September and October. Attendees learned what goes into a repeater and built one to be put on the air at BARC. You may hear it at an upcoming Public Service Event. Thank you Tim for this entertaining and education project!

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](#): The BARC Family and Friends Chili Dinner was another great (and tasty) event! Watch the website as we enter the Contest season and for more information on the various BARC Special Interest Groups. Lots of activities at BARC to keep you busy this winter!

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](#): Thank you to Stu Holzer, K8ST, and Tim Proconiar, N8NQH, for helping to pull coax and Ethernet cable up to the rooftop. The coax was connected to the R9 vertical and weatherproofed. The Ethernet was connected to a small mesh panel for use with Field Day. The R9 coax was brought into the clubhouse and attached to a PolyPhaser on the ground bar above the ceiling tiles. Testing showed that the R9 SWR was adequate (<3:1) on at least part of every band. During testing, issues were discovered with the IC-7300 on Station #2. This will be investigated further later.

(Continued on next page)

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Officer, Director, and Coordinator Inputs (continued)

Other future plans including updating all the grounding and bonding to move the lightning arrestors outdoors, adding some ground rods, and bonding everything together with the electrical service ground. But that will have to wait until next year. Stay tuned!



Download and Install New DMR Contact List: Anytone 578/878 Radios

This is how I update my contact list, with a lot of hams using DMR I try to update often.

Do you need a list of hams using DMR — no — BUT it is neat to see all the hams pop-up on your screen..

So download watch and enjoy

- Open radioid.net
- Select **DATABASE** upper left corner of site
- From dropdown box select **DATA DUMP**
- Scroll down to **USER.CVS**
- Double click to download
- Save the new contact list into a folder. (ex. **Bridgecom DMR contact list** folder)
- Open radio programming software
- Read from radio
- Select **tools>import>digital** contact list
- From the dropdown box select “**Digital Contact List**” button
- Select newly downloaded file from the saved folder location.
- Once file is loaded into the dropdown box, click on the **IMPORT** button. Download takes time to load into the programming software.
- Once downloaded into software you need to write the new program to the radio make sure to check both boxes.

Digital contact List

Other DATA

New file takes time to download to the radio.

Once loaded, the radio’s screen should show all new contacts

—Larry KB8EMD



Lunch Bunch

Jim Totten, [WA8HUB](#)

Hello my fellow lunch lovers. Lunches for October 2023 are done. We had our last lunch the 24th. 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 restaurants are listed in the order most popular (at least for the first few) and with a balance variation. No two chicken restaurants in sequence. 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.

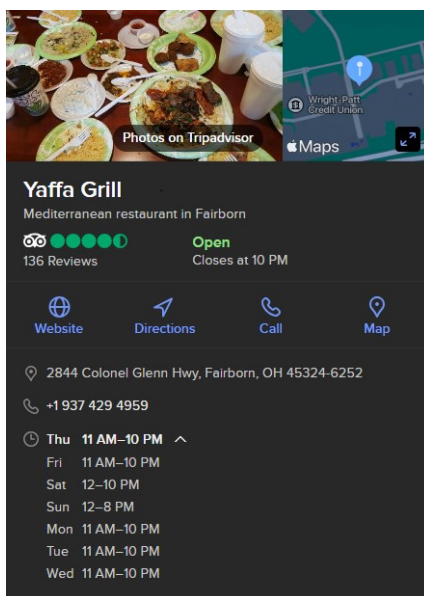
We had some great lunches in October. We started October 10 with lunch at Rooster's Wings in Beaver creek. The menu contains much more than wings. On October 24 we ate at The Golden Corral Grill and Buffet. I am writing this after our lunch earlier this day. As usual everybody had more than enough to eat. Attendance was great. Total was 8. The carrot cake is to die for.

November is not going to be a normal month. As you may recall November is Thanksgiving month. November 23rd is Thanksgiving Day. I have scheduled our one lunch on November 14th at the Yaffa Grill (Mediterranean Food), 2844 Colonel Glenn Hwy, Fairborn, OH. December is Holiday month, wrapping up with Christmas and New Year's Eve. No lunches in December.

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

73, Jim, [WA8HUB](#)

Tuesday, November 14, 11:15am



Lunch Bunch 2023 List

Jim Totten, [WA8HUB](#)

Date	Restaurant	Address	City	Phone Number
7/25/2023	Cherry House Cafe	1241 Meadowbridge Dr.	Beavercreek, OH 45434	(937) 320-6200
8/08/2023	Another Broken Egg Cafe	2453 Esquire Dr.	Beavercreek, OH 45431	(937) 912-5074
8/22/2023	China Garden Buffet	112 Woodman Dr. Airway Shopping Center	Dayton, OH 45431	(937) 781-9999
9/12/2023	First Watch 7:00 am to 2:30 pm	5245 Cornerstone North Blvd	Sugarcreek Township, OH 45440	(937) 732-9013
9/26/2023	Submarine House	3195 Dayton-Xenia Rd.	Beavercreek, OH 45434	(937) 429-8650
10/10/2023	Roosters Wings	2430 N. Fairfield <i>The Shoppes at FC</i>	Beavercreek, OH 45431	(937) 702-9500
10/24/2023	Golden Corral Buffet and Grill	2490 Commons Blvd.	Beavercreek, OH 45431	(937) 613-5478
11/14/2023	Yaffa Grill Mediterranean Food	2844 Colonel Glenn Hwy	Fairborn, OH 45324	(937) 429-4959
01/09/2024	Chic-Fil-A	5301 Cornerstone N Blvd,	Sugarcreek Township, OH 45440	(937) 439-1700
01/23/2024	Culp's Cafeteria	1000 Carillon Blvd	Dayton, OH 45409	(937) 293-2841
02/13/2024	City Barbecue	2001 E. Dorothy Lane	Kettering, OH 45420	(937) 200-1006
02/27/2024	Marion's Piazza	1320 N Fairfield Rd.	Beavercreek, OH 45432	(937) 429-3393
03/12/2024	Red Robin	2671 Fairfield Commons Blvd.	Beavercreek, OH 45431	(937) 320-9800
03/26/2024	Beavercreek Pizza Dive	4021 Dayton-Xenia Rd.	Beavercreek, OH 45432	(937) 431-8669



Special Event Stations for November 2023

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 many 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. Something for everyone! BARC has a few members who were / are in the US Military, some even admit to being in the US Navy, there are numerous Veteran's Day SESs, a science fiction one, an airshow SES for the pilots and want to be pilots, one for Miss Powpow, 2 for brand name radios, one for a famous ship wreck and one for the NRA for all you gun tottering BARC members.

11/01/2023 | 28th Anniversary, Sinking of Edmund Fitzgerald. Nov 1-Nov 12, 0000Z-2359Z, W8F, Livonia, MI. The Livonia Amateur Radio Club. 14.260 14.050 7.260 7.050. Certificate & QSL. Fitzgerald Special Event W8F, w8f@livoniaarc.com, LARC, P.O. Box 51532, Livonia, MI 48151-5532. On Sat. Nov. 11 only, 1530-2030 UTC, W8F operates from Dossin Great Lakes Museum, Belle Isle Park, Detroit, MI., **POTA K-1487**. Club operators will be on all bands/modes Nov. 1-12 - check spotting sites. NEW QSL INFO-SEE W8F Page at www.QRZ.com/db/w8f and at livoniaarc.com

11/04/2023 | Remembering the Edmund Fitzgerald. Nov 4-Nov 5, 1500Z-2355Z, W0JH, Stillwater, MN. Stillwater, MN Amateur Radio Association (SARA). 3.860 7.260 14.260 21.360. Certificate. QSL to w0jh23fitz@outlook.com, for, e-certificate. QSL certificates may only be requested and sent via email address: W0JH23Fitz@outlook.com. W0JH (Phone & Digital at Split Rock only) and WØF (Phone & Digital at Club Member QTHs in the Minneapolis/St. Paul area). There will be multiple stations simultaneously using these call signs, on different bands. IMPORTANT: ONLY W0JH contacts qualify for **POTA K-2524, K-8095**, ARLHS USA 783 validations and submission to LOTW. This is the 19th consecutive year, the club has conducted this Special Event. Visit www.radioham.org and QRZ.com (W0JH) for more details. This year marks the 48th year since the famous iron-ore carrier was caught in a fierce fall storm on Lake Superior. The event will also give tribute to the late Gordon Lightfoot, the Canadian singer-songwriter who popularized the 1976 hit "The Wreck of the Edmund Fitzgerald." www.radioham.org Visit QRZ.com for info regarding WØF operation for the 2023 Remembering the Edmund Fitzgerald special event. www.radioham.org

11/05/2023 | Air Force MARS 75 Years. Nov 5-Nov 11, 0001Z-2359Z, W1A-K*, All USA. Air Force Military Auxiliary Radio System. Technician and General portion of the 80 - 10 meter bands; SSB, CW, and digital modes. Certificate. See website, for e-certificate, information. Call signs W1A through W1K, K4AF and KE6UEU. See website for updates on bands and modes, and how to receive a certificate. <https://community.apan.org/wg/air-force-military-auxiliary-radio-system-afmars/afmars-75-years>

11/09/2023 | Stuart (Florida) Air Show. Nov 9-Nov 12, 1800Z-2100Z, N4A, Stuart, FL. Martin County Amateur Radio Association. 14.270 21.290 28.390. QSL. Martin County Amateur Radio Association, PO Box 1901, Stuart, FL 34995. Saluting all who have served in the US armed forces. You may hear the F-22 demo team or other loud aircraft during the event. <https://www.qrz.com/db/N4A>



Special Event Stations for November 2023 (continued)

11/11/2023 | Commemorating USMC birthday (11/10/1775) and Veterans Day. Nov 11, 1700Z-2359Z, 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 COMEDTRA, 910 N Harbor Drive, San Diego, CA 92101. www.qrz.com/db/ni6iw

11/11/2023 | Honoring our Veterans and Celebrating Veterans Day, 2023. Nov 11, 1500Z-2000Z, KA4TAL, Conway, SC. Horry Post 111 The American Legion Amateur Radio Club. 14.255 7.264 14.275 7.185. Certificate. E-certificate only, send email to, talarc.ka4tal@gmail.com, SC. talarc.ka4tal@gmail.com

11/11/2023 | National Liberty Ship day; honoring all that served. Nov 11, 0200Z-0800Z, K8JWB, Baltimore, MD. Radio Club SS John W Brown. 14.250 MHz 7.225 MHz 21.300 MHz. Certificate. Project Liberty Ship, Inc, P. O. Box 25846, Baltimore, MD 21224-0846. Celebrating all those that served operating, protecting and building the 2710 WW 2 Liberty Ships including the Merchant Marine, Navy Armed Guard and Shipbuilders; including Rosie the Riveters. Mail QSL Card, self-addressed envelope along with required postage to: PROJECT LIBERTY SHIP BALTIMORE INC PO BOX 25846 BALTIMORE, MD 21224-0846 sjohnwbrown.org

11/11/2023 | NB9QV USS Cobia Special Event. Nov 11-Nov 12, 1400Z-2000Z, NB9QV, Manitowoc, WI. NB9QV Cobia Club. 7.240 14.240. Certificate. Send contact information, information to kc9yl@arrl.net, to receive e-certificate. Please send your call sign, name, band, date and time of contact to kc9yl@arrl.net to receive your PDF certificate via email. <https://www.qrz.com/db/NB9QV>

11/11/2023 | Veteran's Day 2023 Celebration. Nov 11, 1500Z-1800Z, W9V, Rochester, IL. Sangamon Valley Radio Club. 14.265 20m (SSB only) 40m (SSB only). QSL. W9V Mitch Hopper, 536 E. Mill St., Rochester, IL 62563. Operating from the Heritage in Flight Museum - Lincoln, IL airport.

11/11/2023 | Veteran's Day Remembrance. Nov 11, 1600Z-2130Z, W5KID, Baton Rouge, LA. Baton Rouge Amateur Radio Club. 7.040 7.250 14.040 14.250. QSL. USS Kidd Amateur Radio Club, 305 S. River Rd., Baton Rouge, LA 70802. CW, SSB, and FT8 Operation aboard the USS Kidd (DD-661), a World War II Fletcher-class destroyer. www.qrz.com/db/w5kid

11/11/2023 | Veterans Day. Nov 11, 1800Z-2100Z, N3TAL, Lanham, MD. American Legion Post 275 Radio Team. 7.275Mhz +/- LSB. QSL. American Legion Post 275 ART Team, 8201 Martin Luther King Jr Hwy, Glenarden, MD. n3tal275@gmail.com

11/11/2023 | Windycon 49 - Science Fiction Convention. Nov 11-Nov 12, 1500Z-2300Z, W9W, Oak Brook, IL. DuPage Amateur Radio Club. 14.070 14.230 14.274 145.430 (local). Certificate. DuPage Amateur Radio Club, PO Box 71, Clarendon Hills, IL 60514-0071. Times are Nov 11 0900-1700 and Nov 12 0900-1500 local time. www.w9dup.org

11/13/2023 | Southern Miss Powwow. Nov 13-Nov 18, 0000Z-1259Z, W0W, Hattiesburg, MS. Pine Belt Amateur Radio Club. 7.033 14.033 14.270 28.410. QSL. N5CW, P.O. Box 52, Petal, MS 39465. n5cw or <http://www.pinebeltamateurradio.com>



Special Event Stations for November 2023 (continued)

11/16/2023 | Hammarlund Radio Hullabaloo. Nov 16-Nov 17, 1200Z-2359Z, KE4MH, Marshall, NC. High Appalachian Mountain Amateur Radio Society. 14.050 14.240 7.050 7.210. Certificate & QSL. HAMARS, c/o Jerry Robinson, N4KJ, P.O. Box 366, Mars Hill, NC 28754-0366. Celebrating the Hammarlund Radio plant that was located in Mars Hill, NC, and the birthday of Oscar Hammarlund. hamars.club

11/17/2023 | 152nd Birthday of the NRA, Operating from Gunsite Academy. Nov 17, 1500Z-2359Z, K7GST, Prescott, AZ. Yavapai Amateur Radio Club. 7.040 7.250 14.040 14.250. Certificate. Downloadable PDF, certificate available at, www.w4gkf.com/k7gst/qso.htm. www.w7yrc.org/nrabirthday

11/18/2023 | 1st Transatlantic Ham Radio QSO (1923).Nov 18, 1400Z-2200Z, K3S, Baltimore, MD. Nuclear Ship Savannah ARC. 7 14 21 28. QSL. ULIS FLEMING, 980 PATUXENT ROAD, Odenton, MD 21113. Operating from the ship. Please check the spotting networks since we may be operating anywhere on 40, 20, 15, or 10m SSB or CW. qrz.com/db/k3s

11/18/2023 | Collins ARC 40th Anniversary.Nov 18, 1400Z-2000Z, W0CXX, Cedar Rapids, IA. Collins Amateur Radio Club. 7.180 MHz 14.263 MHz 21.380 MHz 28.380 MHz. QSL. Collins ARC 40th Anniversary SES, 1110 Lyndhurst Dr, Hiawatha, IA 52233. <https://www.qrz.com/db/W0CXX>

11/18/2023 | November 2023 Bug Roundup.Nov 18-Nov 20, 0000Z-0000Z, W6SFM, Fair Oaks, CA. Samuel F. Morse Amateur Radio Club. 14.033 7.033 3.533. QSL. John E. Geyer, Samuel F. Morse Amateur Radio Club, 4901 Minnesota Ave, Fair Oaks, CA 95628. Grab that bug, clean those contacts, and let'er fly! Let's hear that "Banana Boat/Erie Swing" or that commercial KPH/WCC quality fist. Switch off that keyer! Fill the ionosphere with home grown digital music and have some fun! No exchange for the event, just a relaxed QSO talking about whatever you want. <https://w6sfm.org/bug-roundup>

12/01/2023 | SEC QSO Party. Dec 1-Dec 2, 2100Z-2100Z, W5YD, Starkville, MS. Mississippi State University ARC. 14.250. Certificate. Department of Physics and Astronomy. Attn Torsten Clay, PO Box 5167, Mississippi State, MS 39762. First Inaugural Southeastern Conference QSO Party. Mississippi State University will be participating in this event. <https://secqsoparty.com>

12/01/2023 | W2W Pearl Harbor Day Commemoration.Dec 1-Dec 11, 1300Z-2200Z, W2W, Hunt Valley, MD. Amateur Radio Club of the National Electronics Museum. 14.241 14.041 7.241 7.041. Certificate & QSL. K3NY, 108 Brent, Arnold, MD 21012. Amateur Radio Club of the National Electronics Museum (ARCNEM) will operate W2W in commemoration of the anniversary of Pearl Harbor Day and the role of electronics in WWII. If the Museum station is not available, operators may operate from their home stations. Primary operation will be Dec 1-Dec 7 with additional operation possible during the Dec 8-Dec 11 period as operator availability permits. Operation on 80M (3.541, 3.841) and digital modes possible during event. Frequencies +/- according to QRM. QSL and Certificate available via SASE; details at ww-2.us ww-2.us



DMR – Programming Your Radio

Ray Hitt, [N8VMX](#)

This is the third part of a series on DMR radio. In past articles, I explained what DMR is and how to use the customer programming software (CPS) to set up the channels in your radio. But I never actually walked through the steps of connecting to the radio. It may seem backwards, but I wanted to share some background before pushing and pulling data to/from a DMR radio. This article will involve programming your radio. Like before, the examples here are for the Anytone AT-D868/878/578 radios. These radios have a CPS that comes with them, but the commands are all the same between them. They are also like other manufacturer's CPS, with a few differences.



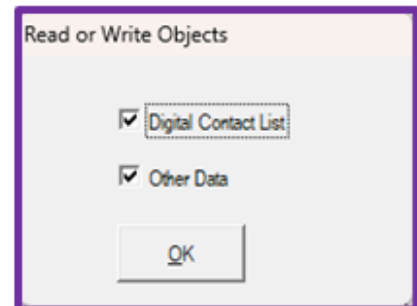
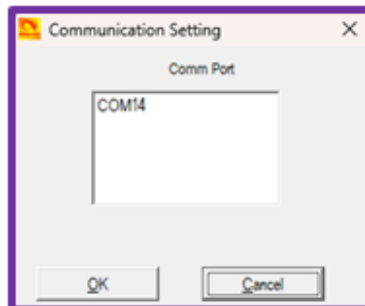
The handheld radios from Anytone connect to your computer with a special cable that came with it (don't lose it!) They connect to your computer with a cable with a USB-A connector on one end and your radio's microphone/speaker jacks on the other. The mobile radio from Anytone connects to your computer with a USB-A to Micro-USB standard cable, which is also supplied with the radio. It can be replaced with any standard USB to Micro-USB cable, just keep the length as short as possible to minimize the risk of data corruption.

Since you're familiar with your CPS software from the previous article, let's start there. The first thing you should do with your radio is to get it connected to your CPS software, then read from the radio's existing memory. This will allow you to restore it back to its current state if you manage to program it with something wrong later (like changing the default language to Chinese and not being able to read the radio's menus to change it back – trust me I know from experience!).

Connecting your Radio: Connect the adapter cable to your radio and connect the other end to the computer. Turn on the radio and make sure you're not on a channel where you could accidentally transmit (i.e. a weather frequency). Then launch the CPS software. The CPS software needs to be told what COM port your radio is on. Open **Set -> Set Com** to find the com port for your radio. If you have too many ports to sort out, open Device Manager to look at your com ports, then unplug your radio and see which ones go away. You could also temporarily disable your Bluetooth and you may see upwards of 4 com ports disappear, making it a lot easier to see which one belongs to your radio.

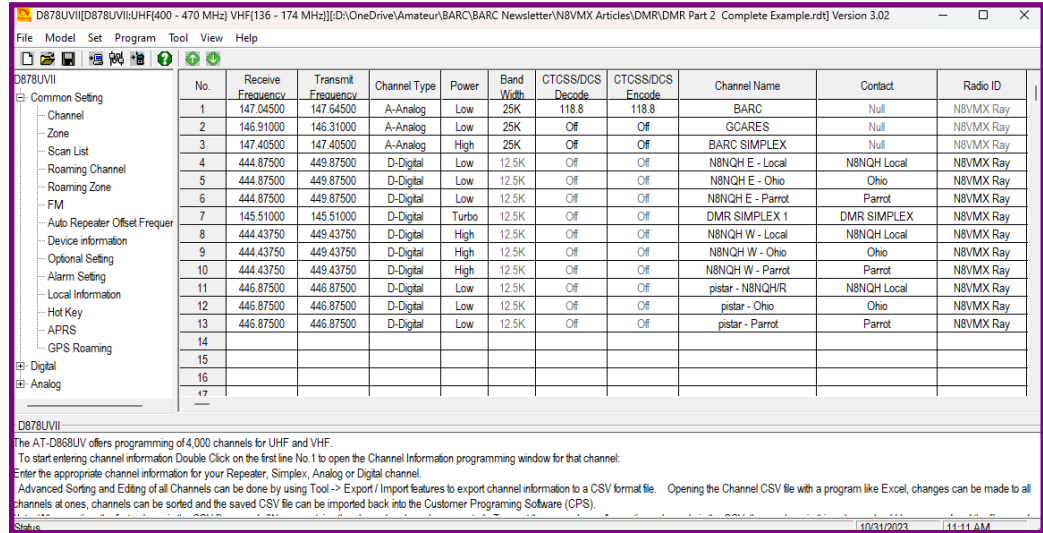
Once you've selected the right COM port in the CPS software, use the **Program -> Read From Radio** menu item to read the radio's contents and save it into a file. You may want to set up a specific directory on your computer/network that is backed up with all your DMR-related items. Save the file there.

Here are the dialog boxes corresponding to this feature. Once you hit OK, the data from your radio will begin downloading. Bear in mind that downloading the Digital Contact List can take a while, that's why it's left as an option. "Other Data" refers to all the radio settings, etc.



DMR – Programming Your Radio (continued)

Once you've done this, the radio's channels will be displayed in the CPS tables. If your radio has not ever had any channels in it, you won't see very much. The best bet would be to just close this file and open a new one, like the sample file from the last article that has some channels already loaded into it. If there are



The screenshot shows a software window titled "D878UVII[D878UVI]UHF(400 - 470 MHz) VHF[136 - 174 MHz] [D:\OneDrive\Amateur\BARC\BARC Newsletter\N8VMX Articles\DMR\DMR Part 2 - Complete Example.rdt] Version 3.02". The main area displays a table of channels with the following columns: No., Receive Frequency, Transmit Frequency, Channel Type, Power, Band Width, CTCSS/DCS Decode, CTCSS/DCS Encode, Channel Name, Contact, and Radio ID. The table contains 17 rows of channel data.

No.	Receive Frequency	Transmit Frequency	Channel Type	Power	Band Width	CTCSS/DCS Decode	CTCSS/DCS Encode	Channel Name	Contact	Radio ID
1	147.04500	147.64500	A-Analog	Low	25K	118.8		BARC	Null	N8VMX Ray
2	146.91000	146.31000	A-Analog	Low	25K	Off	Off	GCARES	Null	N8VMX Ray
3	147.40500	147.40500	A-Analog	High	25K	Off	Off	BARC SIMPLEX	Null	N8VMX Ray
4	444.87500	449.87500	D-Digital	Low	12.5K	Off	Off	N8NQH E - Local	N8NQH Local	N8VMX Ray
5	444.87500	449.87500	D-Digital	Low	12.5K	Off	Off	N8NQH E - Ohio	Ohio	N8VMX Ray
6	444.87500	449.87500	D-Digital	Low	12.5K	Off	Off	N8NQH E - Parrot	Parrot	N8VMX Ray
7	145.51000	145.51000	D-Digital	Turbo	12.5K	Off	Off	DMR SIMPLEX 1	DMR SIMPLEX	N8VMX Ray
8	444.43750	449.43750	D-Digital	High	12.5K	Off	Off	N8NQH W - Local	N8NQH Local	N8VMX Ray
9	444.43750	449.43750	D-Digital	High	12.5K	Off	Off	N8NQH W - Ohio	Ohio	N8VMX Ray
10	444.43750	449.43750	D-Digital	High	12.5K	Off	Off	N8NQH W - Parrot	Parrot	N8VMX Ray
11	446.87500	446.87500	D-Digital	Low	12.5K	Off	Off	pistar - N8NQH R	N8NQH Local	N8VMX Ray
12	446.87500	446.87500	D-Digital	Low	12.5K	Off	Off	pistar - Ohio	Ohio	N8VMX Ray
13	446.87500	446.87500	D-Digital	Low	12.5K	Off	Off	pistar - Parrot	Parrot	N8VMX Ray
14										
15										
16										
17										

settings here you want to retain in the new code plug, it may be better to go into the file from the last article, export all the channels, groups, zones, etc., then open the file we just made and import all those items into the default configuration that we will load into the radio later. You have a lot of latitude to try different things here, just think a moment about what you're trying to do and the easiest way to do it.

Update Firmware: After we've backed up the radio data, something that ought to be done is to update your radio's firmware to the latest version. This is something that many of us have done, but bear in mind that it is replacing software with a newer version, and something might go wrong, and you might end up with an inoperable radio. When and if that ever happens, don't panic, usually all you must do is to repeat the process over again and it will work the second time.

The firmware versions are available for download, here are some places to go. The official downloads are available from Anytone/Wouxun's website. The AT-D878 downloads are [here](#), and the AT-D578 downloads are [here](#). This is the official importer's website for various Chinese manufacturers, including Anytone. If you're less than comfortable downloading anything from a Chinese-affiliated website, you can also find these downloads from Bridgecom's website [here](#). Powerwerx has a link [here](#). I'm sure there are others too.

I'm hesitant to walk through the firmware update procedure here, these websites all have better information right there. More importantly, when you download the firmware update file, it will be a ZIP file, so extract it into a folder and find the "A READ FIRST" folder that will explain everything. In fact, read all the information you can before you even start. This is different from having a car manual and pulling it out when you're driving to find out some features. To program firmware, you want to be comfortable with what you're doing before you even start, reading these instructions beforehand will help. If after reading them and you're still uncomfortable, please contact me or any of the DMR users in the club and we can set up a person-to-person contact to help you out.

Pro Tip: When downloading the latest firmware for your radio, also download the earlier version your radio is using now (and optionally other older versions too). That way, you can set it back the way it was if you don't like anything about what's in the new version. If it causes problems with your radio, then you can roll it back.

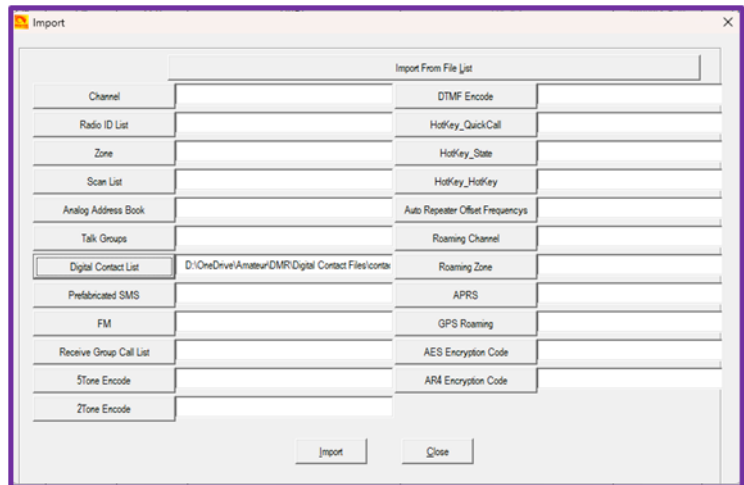


DMR – Programming Your Radio (continued)

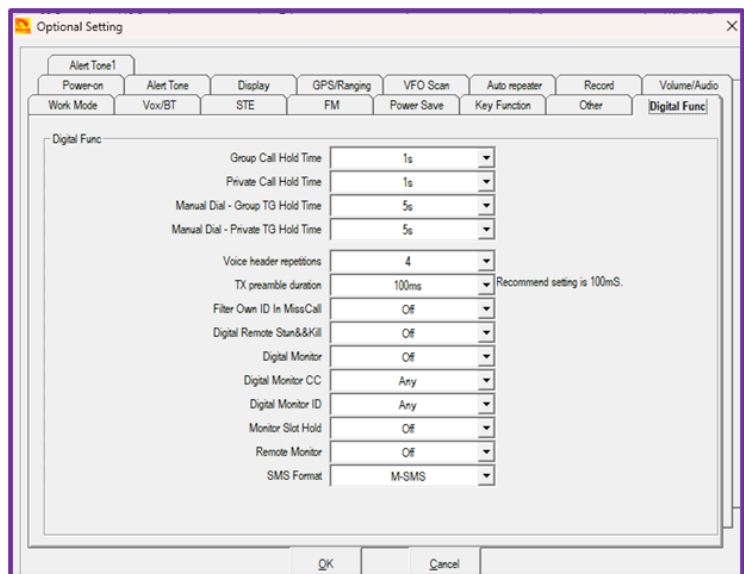
Note that when you update the firmware, it requires you to use the new CPS version that is included in its ZIP file. However, in most cases, you can open the radio settings file created in an earlier CPS version in the latest version and it should load OK in the newer CPS. Read the information contained in the ZIP file which will highlight things that may have changed that you may need to address, for example new settings in the CPS that weren't there in the previous version.

Part of the firmware update procedure requires the radio to be factory reset, erasing all the channels stored in it, going back to factory defaults. That is another reason why I always back up the radio before starting a firmware update. The radio reset procedure is explained in the documentation contained within the firmware update ZIP file.

Download latest Digital Contact List: Every time I make any changes to my radio, I will grab the latest digital contact list. This is a database stored in your radio of all the registered DMR users in the world. If you don't have an updated list, contacts not in the database will show up as a DMR ID number, not their name and location. You will find an updated list a useful feature, especially when you're net control and need to know call signs of people calling in.



Like firmware, there are several places to get the digital contact list, in fact you can usually download them from the same sites as the firmware. The ultimate source for these lists is radioid.net. At this website, you can either download the whole list or pick subsets (continents, countries, etc.) to reduce the size of your list. I usually grab the whole list; it will fit in my radio. If you have an AT-D868 or some AT-D878UVs, you will need to keep the number of contacts below 200,000 (gasp!) to fit in your radio. Another source of the digital contact list is from Powerwerx [here](#), and KF5IW [here](#). Take your pick, they are all updated daily. Radioid.net requires a subscription for some areas of their website which rules it out for some DMR users.



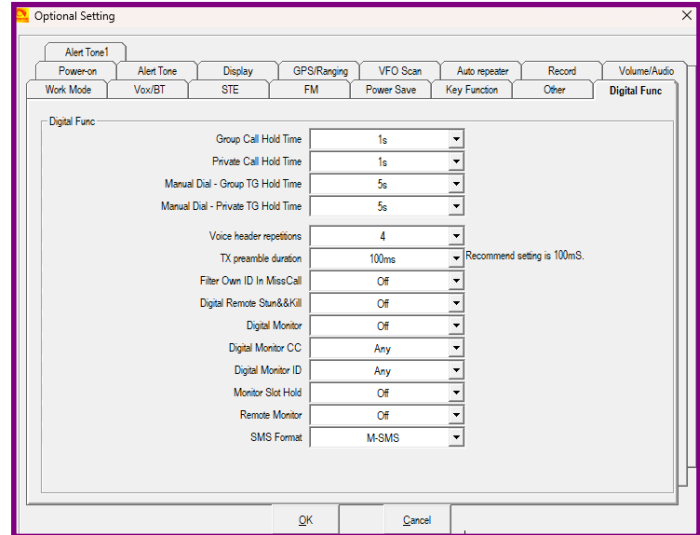
When you download the digital contact list, it is a CSV (comma separated value) file, which is a compatibility format compatible with Microsoft Excel and LibreOffice. You can view it in those programs for sure, but what we want it for is to import into the CPS software for your radio.



DMR – Programming Your Radio (continued)

To use the digital contact list, in the CPS software hit the **Tool -> Import** menu, then click on the Digital Contact List button to import the CSV file you just downloaded. This file will take a long time to import, so be patient. Also bear in mind that this only loads the list into your CPS software, it's not in the radio yet. That's a separate step taken once all the edits are done in the CPS file.

Additional Optional Edits: Before uploading the changed CPS file back into the radio, it's always good to run through the *Optional Setting* page. There are 17 tabs on this page, so running through all of these is way beyond what you would want to see here. If there are parameters that you're familiar with, check them for accuracy; if you're not familiar with some of them, join the crowd, but leave them alone for now! There are resources on the Internet that go into some of these DMR settings. One example would be Timz (N8NQH) Repeater [page](#). Another nice resource I accidentally discovered is a Reddit page [here](#).



Upload into Radio: When you've thoroughly checked all the fields in the CPS software and have imported the latest digital contact list, it's time to load all this information into your radio. This is essentially the same process as reading the radio, but in reverse. Go to the **Program -> Write To Radio** and you'll see the same dialog box as that used to read from the radio. Check both *Digital Contact List* and *Other Data* to write the complete data into the radio. If you're just changing radio settings, make sure to uncheck the *Digital Contact List* box because that list takes a long time to load into the radio.

Once you upload the data into the radio, it will automatically reboot and you should be able to see the changes you made.

Next month, I'll explain hotspots and how you can use them to greatly enhance your DMR experience.

73, Ray, [N8VMX](#)



Answers to Amateur License Test Questions (pages 19-21)

T1B01 (C) [97.301 (e)]	G2B01 (C) [97.101(b), (c)]	E3B06 (B)
T1C11 (D) [97.21(b)]	G5B09 (B)	E5A13 (C)
T2A05 (C)	G7B03 (B)	E7C12 (A)
T4A10 (A)	G8C11 (D)	E9B11 (C)



Amateur License Test Questions

In honor of our Amateur Radio Training classes, here are some questions pulled from the Technician, General, and Extra question pools. Try to answer them and see how you did. **Answers are on page 18.**

Technician

T1B01 [97.301 (e)]

Which of the following frequency ranges are available for phone operation by Technician licensees?

- A. 28.050 MHz to 28.150 MHz
- B. 28.100 MHz to 28.300 MHz
- C. 28.300 MHz to 28.500 MHz
- D. 28.500 MHz to 28.600 MHz

T1C11 [97.21(b)]

If your license has expired and is still within the allowable grace period, may you continue to transmit on the amateur radio bands?

- A. Yes, for up to two years
- B. Yes, as soon as you apply for renewal
- C. Yes, for up to one year
- D. No, you must wait until the license has been renewed

T2A05

How should you respond to a station calling CQ?

- A. Transmit "CQ" followed by the other station's call sign
- B. Transmit your call sign followed by the other station's call sign
- C. Transmit the other station's call sign followed by your call sign
- D. Transmit a signal report followed by your call sign

T4A10

What function is performed with a transceiver and a digital mode hot spot?

- A. Communication using digital voice or data systems via the internet
- B. FT8 digital communications via AFSK
- C. RTTY encoding and decoding without a computer
- D. High-speed digital communications for meteor scatter



Amateur License Test Questions (continued)

General

G2B01 [97.101(b), (c)]

Which of the following is true concerning access to frequencies?

- A. Nets have priority
- B. QSOs in progress have priority
- C. Except during emergencies, no amateur station has priority access to any frequency
- D. Contest operations should yield to non-contest use of frequencies

G5B09

What is the RMS voltage of a sine wave with a value of 17 volts peak?

- A. 8.5 volts
- B. 12 volts
- C. 24 volts
- D. 34 volts

G7B03

Which of the following describes the function of a two-input AND gate?

- A. Output is high when either or both inputs are low
- B. Output is high only when both inputs are high
- C. Output is low when either or both inputs are high
- D. Output is low only when both inputs are high

G8C11

How are the two separate frequencies of a Frequency Shift Keyed (FSK) signal identified?

- A. Dot and dash
- B. On and off
- C. High and low
- D. Mark and space



Amateur License Test Questions (continued)

Amateur Extra

E3B06

Which of the following amateur bands most frequently provides long-path propagation?

- A. 80 meters
- B. 20 meters
- C. 10 meters
- D. 6 meters

E5A13

What is an effect of increasing Q in a series resonant circuit?

- A. Fewer components are needed for the same performance
- B. Parasitic effects are minimized
- C. Internal voltages increase
- D. Phase shift can become uncontrolled

E7C12

What is one advantage of a Pi-matching network over an L-matching network consisting of a single inductor and a single capacitor?

- A. The Q of Pi-networks can be controlled
- B. L-networks cannot perform impedance transformation
- C. Pi-networks are more stable
- D. Pi-networks provide balanced input and output

E9B11

What is a disadvantage of decreasing the number of wire segments in an antenna model below 10 segments per half-wavelength?

- A. Ground conductivity will not be accurately modeled
- B. The resulting design will favor radiation of harmonic energy
- C. The computed feed point impedance may be incorrect
- D. The antenna will become mechanically unstable



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
- 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.

