

# THE eQRM

DECEMBER 2023



## The BVARA in Beaver County Pennsylvania

Beaver Valley Amateur Radio Association

W3SGJ

2M Repeater

145.310

PL 131.8



**On the Cover:** All of us at the BVARA are wishing you a very Merry Christmas this year! We hope to see you at the Christmas Party too. See page 11 for details.



## Inside this edition

Who We Are	3	Hamfests & General	9
This Month	4	Announcements	
Get a License or Upgrade	6	Of Interest to All	10
New License and Upgrades	7	Bits and Pieces	24
Membership	8	Radio Sport	25



### Check into our nets

**Wednesday 2 Meter**

**8:30PM on 145.310 MHz PL 131.8**

**Wednesday 10 Meter**

**9:00PM on 28.470 MHz**

The eQRM is a publication of the Beaver Valley Amateur Radio Association (BVARA) and is Copyright 2010 - 2023. All material presented in this publication is not necessarily the views of the American Radio Relay League (ARRL), BVARA, or members of the said organizations. If you would like to contact the editor of the eQRM, please email David at [kc3bxc.73@gmail.com](mailto:kc3bxc.73@gmail.com). Please visit us online at [www.W3SGJ.org](http://www.W3SGJ.org). To subscribe to our newsletter, please visit [W3SGJ.org/newsletter.php](http://W3SGJ.org/newsletter.php)

# Who We Are

## 2023 BVARA OFFICERS

President: Jack Spencer, KZ3Z

Vice President: Dan Grazulis, KB3VSP

2nd Vice Pres.: Doug Lawrence, K3GTX

Treasurer: Pam Spencer, W3PMS

Secretary: Tom Stoops N3XC

Director: Tony Pavilonis, K3AHP

Director: Jim Allen, KC3IXE

Trustee: Doug Hanna, N4YKQ



## MONTHLY MEETINGS

E-Board meetings are now held the Saturday before the monthly club meeting.

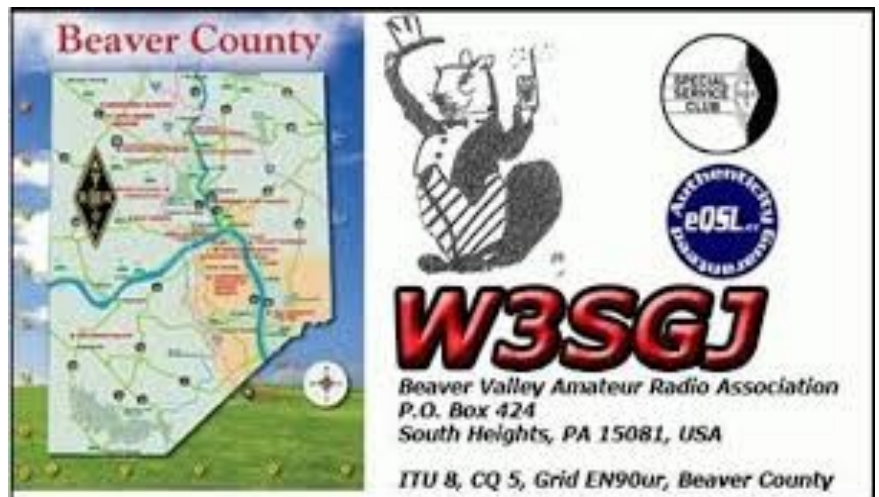
VE testing begins at 5:00 PM.

Regular meetings are at 6:30 PM

All meetings are held at the Beaver County Emergency Services Center (A.K.A. THE 911 Center )  
351 14th Street  
Ambridge, PA 15003  
on the second Thursday of every month (unless otherwise stated).

2023  
Dec 09 Christmas Party

2024  
Jan 11  
Feb 08  
Mar 14  
Apr 11  
May 09  
Jun 13  
Jul 11  
Aug 08  
Sep 12  
Oct 10



# This Month

## *This Month:*

### *Speaker:*

Rich Soltesz  
K3SOM

### *Topic:*

No December Club Monthly Meeting or Presentation

### *Including:*

Because no BVARA Meeting is held during the Month of December, VE Testing and a Presentation are also postponed until January 11<sup>th</sup>, 2024 for our first BVARA club meeting. That decision allows our club members to enjoy the holiday season, with friends and family.

But it also provides additional time to prepare the January Presentation that typically explores a current topic in more detail and is usually well received by club members. Two or three candidate topics are in the running for this attention. Some noteworthy topics from the past have included:

*Amelia Earhart;*

*Radio Propagation on Mars;*

*Future Shock with Technology;*

*FT8 – Take the Plunge;*

*Impressions of the ICOM IC-7300;*

*Antenna Tuners;*

*Strange Signals;*

*Seven Deadly Sins in Ham Radio;*

*QRN, RFI, and Other Nastiness – What to Do About It;*

*Automating Your Station; and*

*Communications – With Ghosts.*



We plan on continuing with our BVARA Presentation Series in 2024, with new topics, updates to requested topics, plus a few surprises along the way. So, stay tuned!

### *Rich's Background:*

Extra Class Ham, Licensed since 1962, VE,  
B.S. Electrical Engineering

# More this Month

## Weekly

The Freedom Square Diner in Monaca has a great wait staff. Come let them take your order.

Thursday Morning Breakfast  
(or you can have lunch)

**Come join us!**



The BVARA meets every Thursday at the Freedom Square Diner in Center Township, just to the right of the Cinemark Center Township Marketplace at 09:30 AM. All radio amateurs and those interested in amateur radio are encouraged to come join us at our Thursday morning breakfast.

## See you Thursday at



**RACES / ARES**  
The eQRM Urges All County Hams to Participate.

The eQRM urges all Beaver County licensed amateurs to participate in the County's RACES and ARES programs.

Any Beaver County Amateur that is interested in participating in the RACES/ARES programs can do so by checking into the Beaver County Public Service Net which meets every Monday evening at 8:30 PM local time on the WW3AAA 146.850 MHz repeater (131.8 PL)



# Get your License or Upgrade



If you are interested in getting your first FCC license or upgrading your current amateur radio license, the Beaver Valley Amateur Radio Association holds VE Test sessions (Volunteer Examinations) the second Thursday of each month at the Beaver County Emergency Services Center in Ambridge Pennsylvania prior to our BVARA Club meeting. If there is no meeting there is no test session. Please come take your test with us!

For more information, contact :  
Rich Soltesz, K3SOM  
(724) 847-0610  
k3som@arrl.net



## VE TEST SESSIONS

Beaver County Emergency Services Center 351 14th Street Ambridge, PA 15003.  
Tests begin promptly at 5 pm on the same day as BVARA Club Meetings  
(the second Thursday of the month).  
All classes of amateur radio license tests are administered.



ALL candidates MUST bring ALL of the following:

1. 2 forms of I.D. - one MUST be a photo I.D.
2. A pencil AND a pen with blue or black ink.
3. The original AND a photocopy of any valid ham license.
4. The original AND a photocopy of any C.S.C.E.
5. The test fee of \$15 - cash only.
6. Your FRN Number. (free from the FCC, call for details)



# New License and Upgrades

BVARA VE Testing

## Testing this Month :



### November 2023 VE Test Session Results

Our November VE Test Session had two successful candidates, with their achievements of obtaining and upgrading their current licenses. Our electronic filing system once again worked superbly.

Our testing was conducted at our normal location at the Beaver County Emergency Services Center in Ambridge, PA.

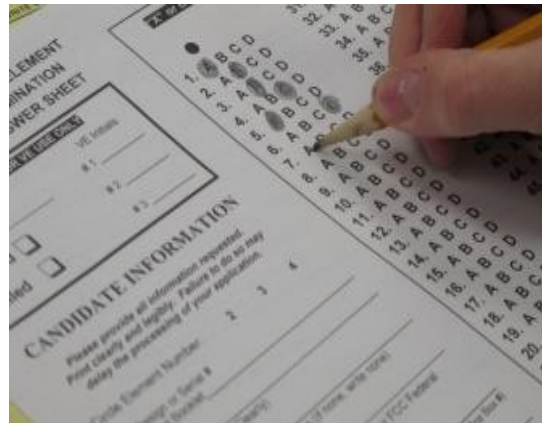
Our next VE Test Session will be on January 11, 2024.

Congratulations to:

Kevin Martin, KC3YAI, Technician, Beaver Falls, PA  
Roy Price, KC3WHQ, Extra, Monaca, PA

All of our BVARA testing would not be possible without the help of the following Extra-Class VE Team members:

Reg Genola – W3REG,  
Tony Pavilonis – K3AHP,  
Mick Pyzoha – N3OJP,  
Bart Stack – KB3NFM,  
Ron Victorelli, KC3TZT,  
Bob Winkle – N3AZZ, and  
Frank Witkowski – W3FJW



73 from Rich Soltesz – K3SOM, VE Liaison



# Membership Information

By becoming a BVARA member you help secure the future of Amateur Radio in Beaver County. Additionally, the BVARA receives a portion of each ARRL membership you purchase!

## Join the BVARA and ARRL

Sign up for:	Price	
<input type="radio"/> BVARA full membership	25.00	_____
<input type="radio"/> BVARA student membership	15.00	_____
<input type="radio"/> BVARA associate membership	10.00	_____
<input type="radio"/> BVARA Child under 21 at home membership	5.00	_____
One year ARRL membership	49.00	_____
A Club Donation		_____
ARRL Member?    Yes    No	Total    Enclosed	_____

Your License Class (If you have one.)

<input type="radio"/> Technician	Name _____
<input type="radio"/> General	Address _____
<input type="radio"/> Advanced	_____
<input type="radio"/> Extra Class	Email _____
	Phone _____
	Your Call sign _____
	Your Signature _____

Make check or money order payable to:

The Beaver Valley Amateur Radio Association, P.O. Box 424  
South Heights, Pa 15081



# Hamfests & General Announcements

**Keep looking forward to Christmas but,  
we will have to wait till next year for a  
Western Pennsylvania hamfest.**



# Of Interest to All

## BVARA Coming Attractions



### December

Christmas Dinner, with Ham of the Year Award, December 9th

ARRL 10-Meter Contest, December 9<sup>th</sup> – 10<sup>th</sup>

Christmas Holiday: “Merry Christmas!”, December 25th

### January

ARRL Straight Key Night, January 1st

Club Monthly Meeting, January 11<sup>th</sup>

January VHF Contest, January 20<sup>th</sup> – 22<sup>nd</sup>

Winter Field Day, January 27<sup>th</sup> – 28<sup>th</sup>

### February

ARRL CW DX Contest, February 17<sup>th</sup> – 18<sup>th</sup>



# Of Interest to All



You're  
Invited



**What:** Beaver Valley Amateur Radio Association annual Christmas Dinner

**When:** Saturday, December 9, 2023 starting at 5 PM

**Where:** Rochester Hotel, 218 W. Washington St., Rochester, PA 15074

- All club members and their guests are welcome to attend.
- Cost is \$25 per person which includes dinner and soft drinks.
- Cash bar is available.
- Menu includes stuffed chicken breast, roast beef, pasta, salad, and appetizers.

Anyone wishing to attend should contact Pam, W3PMS, at [kz3zjack@verizon.net](mailto:kz3zjack@verizon.net)  
Payment must be made by Saturday, December 2, 2023.

We will also have a gift grab bag. Anyone who would like to participate should bring a gift valued at approximately \$20.

This has been a busy, but enjoyable year for club activities. I hope everyone can attend this last club get-together of 2023.

Doug, N4YKQ



# Of Interest to All

## **Radio Clubs Support Outdoor Immersion Resilient Service Members Classic**

On Veteran's Day, Saturday, November 11, 2023 members of both the Beaver Valley Amateur Radio Association and Triple 'A' Amateur Radio Association provided communications support for the Resilient Service Members Classic (RSMC) which was held in the Raccoon Creek State Park. The RSMC benefits a group called Outdoor Immersion that helps veterans with the transition from military back to civilian life. The RSMC consists of a 5k trail run, a 20-mile trail run, and a 50k trail run. The 20-mile and 50k runs use trails along the perimeter of the state park and there are five checkpoint/aid stations throughout the park to support those runners. The 5k run is done on a separate trail and needs no support from radio operators.

Radio operators began arriving at the Recreation Hall, which was also the start/finish line, at 7 AM to a rather cool 28° F morning. Several of us had helped with this event in the past, so assignments were already determined prior to our arrival at the park. We quickly set up the antenna for net control and then the checkpoint operators began heading to their assigned areas for the 8 AM race start.



Net control, photo courtesy Greg, KC3TFW

There were a total of 28 runners in the 50k race, however only 23 completed the race in the allotted time with finish times ranging from 4 hour 47 minutes to 9 hours 8 minutes. The 20-mile race had 25 runners who all finished with times ranging from 3 hours 28

# Of Interest to All

minutes to 7 hours 3 minutes.

The terrain in Raccoon Creek State Park is quite hilly, which not only creates a challenge for the runners, it makes radio communication a bit tough without the use of the 24-foot mast and 5dB gain antenna at net control. Operators at the various checkpoints used equipment that ran the gamut from portable radios all the way to mobile radios powered from batteries and using antennas either on tripods, hung in trees, or magnet mounts on vehicles.



Checkpoint #1, photo courtesy Roy, K3BBC



Checkpoint #2, photo courtesy John, KC3QCG



Left: Ed, N3SDO. Right: John, KC3QCG



Checkpoint #4, Dan, KB3VSP. Photo courtesy, Doug, N4YKQ

Once the radio operators had their equipment set up radio checks were completed. Communication from each checkpoint to net control was verified and some of the checkpoints could even communicate with each other. Duties included reporting runner “bib” numbers back to net control as well as passing a message to a specific runner and reporting the occasional injury. Fortunately, no one required major medical assistance.

# Of Interest to All

On at least three occasions throughout the day the head of Outdoor Immersion, Jim Skal, told us that this event could not happen with the assistance provided by amateur radio.

As duties at each checkpoint finished, operators returned to the Recreation Hall where they were able to have a lunch of Subway sandwiches, chili, and potato soup provided by the Outdoor Immersion group.

We also decided this year to try experimenting with a portable UHF repeater that was provided by Sean, K3UKE. Sean parked in the Roadside East picnic area and was able to erect a 15-foot mast topped with a Hustler G6 antenna. The repeater was set up in Sean's vehicle and powered by a large-capacity battery. Doug, N4YKQ, traveled to several checkpoints for the purpose of testing portable coverage. Other checkpoint operators were encouraged to bring UHF equipment and test coverage during lulls in race activity. We learned that we have some obstacles to overcome, but the experiment was encouraging.

Ham radio participants were:

Jack, KZ3Z, and Pam, W3PMS, at net control.

Roy, K3BBC, at Checkpoint #1.

Ed, N3SDO, and John, KC3QCG, at Checkpoint #2.

Greg, KC3TFW, at Checkpoint #3.

Dan, KB3VSP, at Checkpoint #4.

Doug, K3GTX, at Checkpoint #5.

Sean, K3UKE, UHF repeater experiment.

Doug, N4YKQ, net manager.

All totaled, ham operators provided approximately 95 volunteer hours to Outdoor Immersion for this event.

by: Doug, N4YKQ

# Of Interest to All

Remember back when you could communicate by “Pay Phone” for ten cents? This page is for anyone who wants to communicate with the BVARA community and beyond.

Please send me your article that you would like posted on this page. Please, only topics and language in good taste. As the editor I reserve the option to post it or ignore it. Send your dime to me at: [kc3bxc.73@gmail.com](mailto:kc3bxc.73@gmail.com)



As my memory of the Thanksgiving Holiday begins to fade, I find myself wanting to thank everyone for what our BVARA accomplished this year. From our elected club leadership team, our members who actively helped or participated, and the many other people who were touched by the many activities of the BVARA this past year, thank you everyone for your support and encouragement.

Perhaps the most significant event for us was the planning, preparation, and successful execution of the celebration of our 100<sup>th</sup> Anniversary. By most accounts, our celebration was an outstanding success. Our many other events like Winter Field Day, Summer Field Day, our Corn Roast, support for the Outdoor Immersion’s Resilient Member’s Classic, field setups at Enon Valley and Darlington, our field trip to Allegheny Observatory, and our field trip to the museums of Darlington (and perhaps other events supported by the BVARA) have helped us to kick off our Second Century of club activities with great success.

The character, cooperation, and values that our club now so generously display, have continually grown over the years since I became a part of the organization around 2008 or 2009. Club members continue to push out their ‘comfort zone’ by trying new techniques, by using newer technology, and by helping others with their ‘Elmering’ skills. Thank you, everyone!

Rich Soltesz – K3SOM

## The Darlington Museums, A Remarkable Field Trip

On Saturday, November 18<sup>th</sup>, 2023, a Field Trip to the unique Museums of Darlington was arranged by Jim, KC3IXE that included very knowledgeable Docents from the Little Beaver Historical Society. Eight BVARA-related people experienced a museum tour, long to be remembered. Our tour included three of the four museums with specialized content and many rare pieces.

The tour started with the *McCarl Industrial and Agricultural Museum* that featured machines that were used by local companies in times past. This highly specialized museum is a great place to visit if you're interested in machinery and local history.



They have an extensive collection of industrial artifacts from the 19th and 20th century, and visitors can get up close to displays and see how things work. At certain times, they have live demonstrations of their working equipment.



# Of Interest to All

As we entered the door, a large steam engine and a Downie Water Pump over eight feet tall ominously welcomed us to a very different kind of museum. A Beaver Falls company built the engine, with large, wide belts that was used in oil fields in the surrounding area during the 19<sup>th</sup> Century. On special occasions this engine and water pump are put into operation but with compressed air rather than steam, for safety reasons.

Tom, N3XC viewing the Steam Engine and Downie Water Pump at the entrance to the McCarl Museum.



We wondered about the many focus areas of the museum, Jim, one of the Docents (or knowledgeable specialists) personally guided us through so many areas with much more information than was contained in the information signs that identified some of the more bizarre pieces of equipment. He also gave us a bit of the history of the piece and the industrial company that produced it. There were also numerous group photos of all of the employees of small manufacturing companies within Beaver County.



Doug, K3GTX, and Kathy listen to Jim, the Docent explain one of the exhibits.

# Of Interest to All

Some of the specialty areas focused on a collection of items made by prisoners using only wooden matches and glue. A detailed acoustic guitar, a sailing ship, interlocking wooden chains were only a few of these prisoner-made exhibits.

Prison Art Guitar that is made with wooden matchsticks and glue.



Doug, K3GTX and Tom, N3XC by the Christmas train layouts.



With a seasonal flavor, specialized train layouts and scenery were being assembled by volunteers for the upcoming festivities in December. One unique part of the scenery depicted a UFO hovering over a farm with a cow being slowly raised into the bottom of the UFO while the farmer tried to retrieve his cow with a long, attached rope

Another miniature train layout item featured a drive-in burger shop complete with a 1956 Chevy and an attractive food waitress who moved from inside to outside using her roller skates. Now that was a unique, fast food way of providing service!

One corner of the large display room featured items found around a gas station and many wall signs reflecting a favorite oil or brand of gasoline. Perhaps they even sold vacuum tubes, condensers, and headphones for the hobbyist. A small collection of shortwave and AM radios were displayed in another area of the museum.

# Of Interest to All



Jim, KC3IXE, Doug, N4YKQ, Tom, N3XC, and Denny KR3DX near the back of the main exhibit area.

Against the wall, right after we entered the museum, was an old IBM 604 Computer that was produced from 1948 through 1952. This machine could do simple calculations based on the use of punched cards that were fed into it. It used vacuum tubes to perform its operations. This is a rare machine with only three others known to exist; one of which is in California and one is in Switzerland. Shell, as it demolished the Horsehead Industries plant in Potter Township, donated this machine to the museum.

So many items on display, so much history, and each one with a story that our Docent knew. A separate area displayed memorabilia from The Great War, World War 1, The War to End All Wars. Two rifles were prominently displayed; a British, Standard Issue, Lee Enfield 0.303 caliber rifle and an M1903 Springfield 30-06 rifle. A photo is displayed of four men in the trenches who are waiting, sleeping, and writing a letter to a loved one while they wait for the next call to attack. A Roll of Honor Roster of the men who served in battle from Company "D" 332<sup>nd</sup> Infantry from Camp Sherman, OH is displayed, complete with training camp photos of their preparations.

Archaeological excavations at the prehistoric man site, located on the north bank of the Ohio River midway between the communities of Vanport and Ohioville, have been in progress intermittently since 1959 through 1979. Some 6,000 or more years of Indian culture in our area has been studied at this stratified location. The museum displays many of the discovered artifacts that include blades and scrapers, slate necklace pieces, and so much more.

In addition to what is described above, so many more displays were viewed and enjoyed. The Townsend History Room located off to one side contains many more exhibits.

# Of Interest to All

Just down the block on Plum Street sits *The Little Beaver Museum*, previously known as The Second Greensburg Academy. Built in 1883, this two-story building eventually served as the Darlington High School through the mid-20th century. The first floor now displays historic artifacts from towns throughout Beaver County.



Victorian Post Office that is located on one side of the General Store showing cubby holes for letters.

On the second floor are rooms furnished to show what local domestic life was like in the early 20th century, including a Dining Room and a Victorian Parlor.

Victorian One Room School.



# Of Interest to All



Victorian Parlor.



Victorian Kitchen with a Helen Olive kitchen stove made in Rochester, PA and a genuine Ice Box to keep things cold.

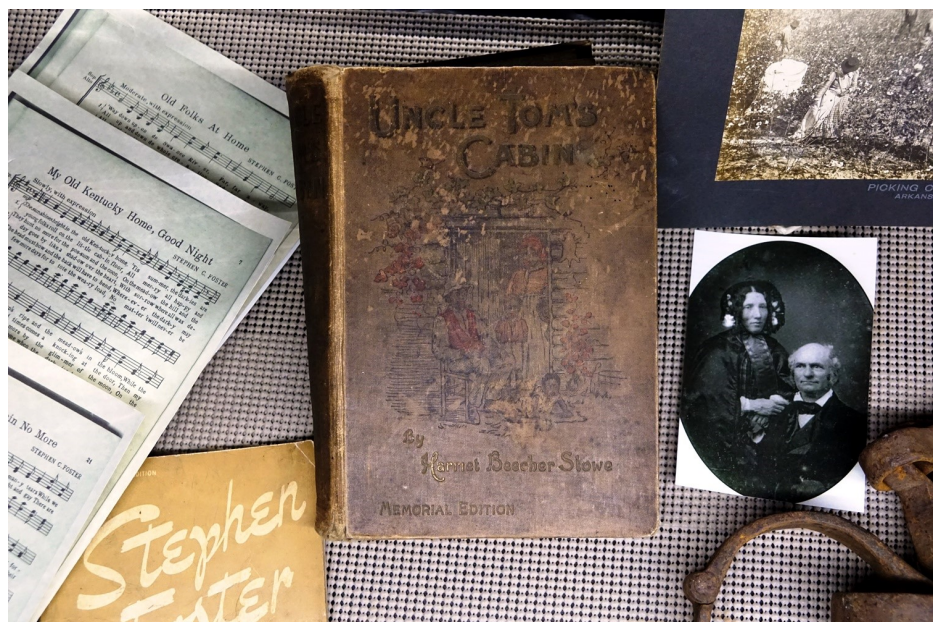
# Of Interest to All



The Greensburg Academy with Denny, KR3DX, Doug, N4YKQ, Jim, KC3IXE, Kathy, and Doug K3GTX as we arrive and read the plaque outside.

*The Greensburg Academy* on Market Street was built in 1802 and is the oldest surviving public building in Beaver County. This landmark originated as an institution of higher learning, the first one north of the Ohio River. It later served as a railroad depot and you can still see where the railroad tracks used to run parallel to the building.

Harriet Beecher Stowe's classic novel, *Uncle Tom's Cabin* and also shown with sheet music by Stephen Foster.



# Of Interest to All

The upright piano of John Wallace, a music composer and friend of John Philip Sousa who also composed many popular military and marching band pieces of music.



*The McCoy Log Cabin* was built in Ohio around 1812. It demonstrates what early frontier life was like in the region during the 19th century. At Christmastime, the cabin is visited by Santa, who meets with boys and girls from the community, even as far away as Pittsburgh. Because of the preparations to the log cabin for Santa's arrival, it was not available for us to tour.

We spent four packed hours visiting the three museum buildings. We wish to thank both Jim at the McCarl Museum and Bev at the Little Beaver Museum and the Greensburg Academy for their very informative and knowledgeable descriptions and information that they provided to us.

Rich Soltesz - K3SOM

# Bits and Pieces

Hello all,

As I look back at this year with the BVARA I am thankful to all the members. I had a great year of radio related fun and enjoyment. I am proud and thankful for all the kindness & consideration I saw demonstrated by our Club members and the same I personally received.

So much went on this year. We celebrated our 100<sup>th</sup> year as a Radio Club. We participated in many field trips, ARRL Field Day, our corn roast club picnic, antenna parties with Club members, Thursday Breakfasts, after Club Meeting dinners and so much more. Without each one of you these things would not be possible. I thank each and every one of you for your support of our Club events.

I have had to endure some very sad family events this year. I look forward to celebrating the birth of a child born many years ago in a manger. He is the hope of the world, Jesus. I will rest in Him. I am wishing you a very special Christmas this year.



Looking forward, I can hardly wait for what awaits all BVARA Club members in the new year twenty twenty four.

Please, always, be safe and enjoy our radio hobby.

Clear on your final, but I will be monitoring.

73 KC3BXC





# Radio Sport

## Contest Corral

## December 2023

Check for updates and a downloadable PDF version online at [www.arrl.org/contest-calendar](http://www.arrl.org/contest-calendar).

Refer to the contest websites for full rules, scoring information, operating periods or time limits, and log submission information.

Start Date-Time	Finish Date-Time	Bands	Contest Name	Mode	Exchange	Sponsor's Website
1 2100	2 2100	1.8-28	SEC QSO Party	CW Ph Dig	RS(T), school abbreviation or none	<a href="http://secqsoparty.com">secqsoparty.com</a>
1 2200	3 1600	1.8	<a href="#">ARRL 160-Meter Contest</a>	CW	WVE: RST, ARRL/RAC Section; DX: RST	<a href="http://www.arrl.org/160-meter">www.arrl.org/160-meter</a>
2 0000	3 2359	3.5-28	Kalbar Contest	Ph	RS, serial	<a href="http://kalbarcontest.com">kalbarcontest.com</a>
2 0500	3 1000	3.5-28	UFT Meeting	CW	RST, mbr or "NM"	<a href="http://www.uft.net">www.uft.net</a>
2 0600	2 0800	7,14	Wake-Up! QRP Sprint	CW	RST, serial, suffix of previous QSO	<a href="http://qrp.ru">qrp.ru</a>
2 1200	3 1159	3.5-28	PRO CW Contest	CW	RST, serial, "M" if member	<a href="http://www.procontestclub.ro">www.procontestclub.ro</a>
2 1400	3 1359	3.5-14,21	INORC Contest	CW	RST, club, mbr or serial	<a href="http://www.inorc.it">www.inorc.it</a>
2 1800	3 2359	3.5-28	FT Roundup	Dig	WVE: RST, state/province; DX: RST, serial	<a href="http://www.rtycontesting.com">www.rtycontesting.com</a>
5 0100	5 0159	1.8-28,50	Worldwide Sideband Activity Contest	Ph	RS, age group (OM, YL, Youth YL, or Youth)	<a href="http://wwsac.com/rules.html">wwsac.com/rules.html</a>
5 0200	5 0400	3.5-28	ARS Spartan Sprint	CW	RST, SPC, power	<a href="http://arsqrp.blogspot.com">arsqrp.blogspot.com</a>
6 0230	6 0300	1.8-14,21	Phone Weekly Test	Ph	Name, SPC	<a href="http://www.perluma.com">www.perluma.com</a>
6 1700	6 2100	144	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	<a href="http://www.ft8activity.eu">www.ft8activity.eu</a>
7 0000	7 0300	1.8	QRP ARCI Topband Sprint	CW	RST, SPC, mbr or power	<a href="http://qrparki.org">qrparki.org</a>
7 0000	8 0300	7	Walk for the Bacon QRP Contest	CW	Max 13 WPM; RST, SPC, mbr or power	<a href="http://qrpcontest.com">qrpcontest.com</a>
7 1800	7 2200	28	NRAU 10-M Activity Contest	CW Ph Dig	RS(T), 6-char grid square	<a href="http://nrau.net">nrau.net</a>
7 2000	7 2200	1.8-28,50	SKCC Sprint Europe	CW	RST, SPC, name, mbr or "none"	<a href="http://www.skccgroup.com">www.skccgroup.com</a>
9 0000	10 2359	28	<a href="#">ARRL 10-Meter Contest</a>	CW Ph	WVE/XE: RST, state/province; DX: RST, serial	<a href="http://www.arrl.org/10-meter">www.arrl.org/10-meter</a>
9 0000	11 2359	1.8-7	PODXS 070 Club Triple Play Low Band Sprint	Dig	RST, SPC	<a href="http://www.podxs070.com">www.podxs070.com</a>
9 0600	10 1800	1.8-28	TRC Digi Contest	Dig	RST, serial, "TRC" if member	<a href="http://trcdx.org/rules-trc-digi">trcdx.org/rules-trc-digi</a>
9 1200	10 2359	1.8-28,50	SKCC Weekend Sprintathon	CW	RST, SPC, name, member or "none"	<a href="http://www.skccgroup.com">www.skccgroup.com</a>
9 1300	10 1300	3.5,7	ARI 40/80 Contest	Ph CW Dig	RS(T), 2-letter province code	<a href="http://www.ari.it">www.ari.it</a>
10 2000	10 2300	1.8-28	QRP ARCI Holiday Spirits Sprint	CW	RST, SPC, mbr or power	<a href="http://qrparki.org">qrparki.org</a>
11 0100	11 0300	1.8-28	4 States QRP Group Second Sunday Sprint	CW Ph	RS(T), SPC, mbr or power	<a href="http://www.4sqrp.com">www.4sqrp.com</a>
12 0100	12 0159	1.8-28,50	Worldwide Sideband Activity Contest	Ph	RS, age group (OM, YL, Youth YL, or Youth)	<a href="http://wwsac.com/rules.html">wwsac.com/rules.html</a>
13 0130	13 0330	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or power	<a href="http://naqcc.info">naqcc.info</a>
13 0230	13 0300	1.8-14,21	Phone Weekly Test	Ph	Name, SPC	<a href="http://www.perluma.com/Phone_Fray_Contest_Rules.pdf">www.perluma.com/Phone_Fray_Contest_Rules.pdf</a>
13 1700	13 2100	432	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	<a href="http://www.ft8activity.eu/i">www.ft8activity.eu/i</a>
14 1900	14 2000	3.5,7	EACW Meeting	CW	RST, mbr, nickname, EA province or DXCC prefix	<a href="http://www.eacwspain.es">www.eacwspain.es</a>
15 1600	15 1700	3.5,7	AGB-Party Contest	CW Ph Dig	RST, serial, mbr or none	<a href="http://www.ev5agb.com">www.ev5agb.com</a>
15 1800	15 2200	1.8	Russian 160-Meter Contest	CW Ph	RS(T), oblast code or serial	<a href="http://www.topband.ru">www.topband.ru</a>
16 0000	16 2359	1.8-28,50	Feld Hell Sprint	Dig	RST, mbr, SPC, grid	<a href="http://sites.google.com/site/feldhellclub">sites.google.com/site/feldhellclub</a>
16 0000	16 2359	3.5-28	OK DX RTTY Contest	Dig	RST, CQ zone	<a href="http://okrtty.crk.cz/i">okrtty.crk.cz/i</a>
16 1400	17 1400	1.8-28	Croatian DX Contest	CW Ph	RS(T), 9A county or ITU zone	<a href="http://www.hamradio.hr">www.hamradio.hr</a>
17 1800	17 2359	3.5-28	<a href="#">ARRL Rookie Roundup, CW</a>	CW	Name, 2-digit year first licensed, SPC	<a href="http://www.arrl.org/rookie-roundup">www.arrl.org/rookie-roundup</a>
17 2300	18 0100	1.8-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or power	<a href="http://qrpcontest.com">qrpcontest.com</a>
19 0100	19 0159	1.8-28,50	Worldwide Sideband Activity Contest	Ph	RS, age group (OM, YL, Youth YL, or Youth)	<a href="http://wwsac.com/rules.html">wwsac.com/rules.html</a>
20 0130	20 0330	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or power	<a href="http://naqcc.info/sprint_rules.html">naqcc.info/sprint_rules.html</a>
20 0230	20 0300	1.8-14,21	Phone Weekly Test	Ph	Name, SPC	<a href="http://www.perluma.com">www.perluma.com</a>
20 1700	20 2100	1.2G	VHF-UHF FT8 Activity Contest	Dig	4-char grid square	<a href="http://www.ft8activity.eu/i">www.ft8activity.eu/i</a>
21 0000	22 0300	14	Walk for the Bacon QRP Contest	CW	Max 13 WPM; RST, SPC, mbr or power	<a href="http://qrpcontest.com">qrpcontest.com</a>
21 1900	21 2000	3.5-14	NTC QSO Party	CW	Max 25 WPM; RST, mbr or "NM"	<a href="http://pi4ntc.nl/ntcqp">pi4ntc.nl/ntcqp</a>
24 0000	31 2359	1.8-28	CW QRS Xmas Activity	CW	RST, name, QTH	<a href="http://cwqrs.it">cwqrs.it</a>
26 0100	26 0159	1.8-28,50	Worldwide Sideband Activity Contest	Ph	RS, age group (OM, YL, Youth YL, or Youth)	<a href="http://wwsac.com/rules.html">wwsac.com/rules.html</a>
26 0830	26 1059	3.5,7	DARC Christmas Contest	CW Ph	RS(T), DOK (or "NM" if not a DARC member), serial	<a href="http://www.darc.de">www.darc.de</a>
27 0000	27 0200	1.8-28,50	SKCC Sprint	CW	RST, SPC, name, mbr or "none"	<a href="http://www.skccgroup.com">www.skccgroup.com</a>
27 0230	27 0300	1.8-14,21	Phone Weekly Test	Ph	Name, SPC	<a href="http://www.perluma.com">www.perluma.com</a>
30 0000	30 2359	1.8-28, 50,144	RAC Winter Contest	CW Ph	VE: RS(T), province/territory; non-VE: RS(T), serial	<a href="http://www.rac.ca/contesting-results">www.rac.ca/contesting-results</a>
30 1200	30 2359	3.5-28	YOTA Contest	CW Ph	RS(T), age (avg age for multi-ops)	<a href="http://www.ham-yota.com/contest">www.ham-yota.com/contest</a>
30 1500	31 1500	1.8	Stew Perry Topband Challenge	CW	4-char grid square	<a href="http://www.kkn.net/stew">www.kkn.net/stew</a>
31 0900	31 2359	3.5,7	Bogor Old and New Contest	Ph	RS, operator age	<a href="http://www.orari-bogor.org">www.orari-bogor.org</a>