



# The **RADIOGRAM**

When All Else Fails ~ Amateur Radio Works

~ Official Newsletter of the Portage County Amateur Radio Service, Inc. ~

PCARS - the 2018 Hamvention® Club of The Year

March 2023 - Volume 18 Number 3

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**PCARS K8BF**

The Club that puts the FUN in Ham Radio!







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Portage County Amateur Radio Service



2018 Hamvention® Club of the Year

## From the President



**Nick, AC8QG**  
PCARS President



### Antenna Planning Season

March is here, and the weather still hasn't made up its mind in Northeast Ohio. They say spring starts later this month, but I'm starting to have my doubts. One thing's for sure, though. It's not antenna *installation* weather. I'm pretty sure that makes it antenna *planning* season.

I have some antenna planning to do myself this year, so I'm grateful to all of you who have provided ideas and inspiration through your successes and occasional failures. I have some great ideas to run with for both my portable setup and more permanent installations at the house. A little planning now should make for some fun once the good weather comes around!

### Freeze Your Acorns Off

Freeze Your Acorns Off 2023 is in the books, and it was another success. Many thanks to Chuck, W8PT and all who helped coordinate the event. And also, thank you to everyone who operated, shared a dish, or simply stopped in and joined in the fun.

It was actually cold this time, so that's a nice change of pace from last year. Not that it was a blizzard, but for an event with the word "freeze" in the name, you don't want to see the mercury too high when you look at the thermometer.

As always, there was a lot of delicious food. Now, excellent food is the norm for this event, and it's one of our great traditions. The food just seems to enhance the "**Big Fun.**" My compliments to all of the chefs!

### Field Day

Yes, it's March, and yes, I'm going to write about Field Day. Why? Because our Field Day team is already hard at work planning and strategizing. We were pretty good last year, but this year we want to be great.

Our score is part of the equation, but it's not the only thing that matters. We also want to learn, improve our skills, and enjoy the competition. To make all that happen, we need your help.

First, brush up on your skills by working in a few contests. We'll be on the air as K8BF from the club site in several contests before Field Day. These are great opportunities to learn from others, ask questions, and practice on the air. If you're already a seasoned contester, come out and share your insights with less experienced Hams, and help us win a couple of contests too!

Second, join us at our Tuesday Special Interest Group (SIG) meetings. Every SIG (Digital, Portable Ops, Antenna, and DX & Contesting) covers information and skills that will help with Field Day and improve your skillset.

Third, sign up to operate at Field Day. Bottom line: we need people on the radio. Sometimes we struggle to fill all the slots. This year, I'd like to see as many people as possible get on the air.

Fourth, volunteer to help with setup and teardown. This part might be the most stressful part of Field Day for some of our station captains, but willing and able volunteers make the process smooth and even fun.

### Final Note

Please check the club calendar at our website ([www.portcars.org](http://www.portcars.org)), and watch for QST emails so that you don't miss any of our upcoming activities. I also highly recommend you attend any or all of our Special Interest Groups. We learn so much when we learn together!

I wish you all great contacts and hope you have a lot of fun this month!

## From the Vice President



**Jim, AC8NT**  
PCARS Vice President



### Monthly Meetings that have been scheduled:

- March - Dr. Willem Schreuder, AC0KQ Director of Continuing Education for the Rocky Mountain Ham Radio Club will be discussing digital techniques in microwaves. This club, RMHAM, runs a digital microwave network of 137 sites spanning Wyoming, Colorado and New Mexico.
- April - Society of Amateur Radio Astronomers will be discussing radio astronomy projects and techniques. Projects range from solar weather to measuring the Milky Way using a hydrogen line receiver. We will have a hydrogen line receiver and the software at the meeting for members to see.
- May - AMSAT's Clint Bradford, K8LCS will be discussing how hams can have more fun with current and future satellite projects.

If anyone has any topic they would like included as a possible meeting presentation, please let me know. We have access to a broad range of speakers. Also remember we are looking for a few members to talk about a project they have completed. If you would like to discuss a project, let me know.

### Club site events scheduled:

- Club cleanup will be held Saturday morning March 4<sup>th</sup>. Think of it as early Spring cleaning.
- The Balun and Cable Build will be held Saturday morning March 18<sup>th</sup> from 9 AM till Noon. A registration QST will be sent. If you plan to attend, you will need to supply the registration information. If projects are not completed, we may finish them up at the Antenna SIG.

### Other points:

- Materials to support the ARRL grant have been purchased. They should be at the club by the second week of March. We will need to do some kitting and make some modifications to equipment cases. I will be sending a QST out for some help with this work after the equipment arrives.
- The Mt. Union ham radio club is moving along. We have developed a constitution and bylaws; space has been allocated; access to the roof has been given for an antenna; and we are starting the training of the faculty advisor and students. The faculty advisor will also act as the License Trustee. As a major step in the support of the club The Alliance Club has volunteered to support the students and club. PCARS really appreciates Ron, KE8HCY and the entire Alliance club's support of this project.



- Kent State has asked to locate the club at its Tuscarawas campus. Their Technology School is headquartered at this campus. We are working with the administration to establish the club, develop its constitution and bylaws, and recruit club members.

### Personal Notes

I am having a lot of fun making a portable vertical for field operations. Major specification is it needs to setup and tear down in ten minutes or less. It will look a lot like the chameleon vertical and hopefully be less expensive. We all have had antenna challenges. They are work, but also a lot of fun to play with.

Remember to have fun and help spread the word that ham radio is not only still around, but also a fun learning experience as well.

## Schedule of Events



March 4<sup>th</sup> - Club Site Clean Up Day - 9 am - 11 am  
 March 6<sup>th</sup> - PCARS Board Meeting at the club site & Zoom - 7 pm  
 March 11-12<sup>th</sup> - Idaho & Wisconsin QSO Party - K8BF On the Air at the club site  
 March 12<sup>th</sup> - Daylight Saving Time Starts - clocks moved forward  
 March 13<sup>th</sup> - PCARS Meeting - Kent American Legion & Zoom - 7 pm  
 March 14<sup>th</sup> - Pi Day - nope, not the Raspberry Pi computer - go with Cherry.....  
 March 18<sup>th</sup> - Balun & Cable Build Day at the club site - 9 am to 12 noon  
 March 23<sup>rd</sup> - Net Night at the Club site 6:30 pm - 10 pm  
 April 1<sup>st</sup> - VE Testing at the club site - starts at 10 am  
 April 3<sup>rd</sup> - PCARS Board Meeting at the club site & Zoom - 7 pm  
 April 9<sup>th</sup> - Easter Sunday  
 April 10<sup>th</sup> - PCARS Meeting - Kent American Legion & Zoom - 7 pm  
 April 16<sup>th</sup> - K8BF POTA at Wingfoot State Park - 11 am to 3 pm - see flier  
 April 22<sup>nd</sup> - Earth Day  
 April 29-30<sup>th</sup> - FL QSO Party - K8BF On the Air at the club site



First Tuesday - **Digital Special Interest Group** - Moderator: Rick, K8CAV  
 Second Tuesday - **Portable Ops Special Interest Group** - Moderator: John, WG8X  
 Third Tuesday - **Antenna Special Interest Group** - Moderator: Bob, N8QE  
 Fourth Tuesday - **DX & Contest Special Interest Group** - Moderator: Chuck, W8PT  
 Fifth Tuesday - **Could Be Anything Special Interest Group** - Moderator: Rick, KD8WCK

**Fourth Thursday** - Net Night at the Club Site - 6:30 pm - Moderator: Tom, WB8LCD



## From the Great Lakes Division Vice Director



**Scott, N8SY**  
ARRL Great Lakes Division Vice Director



### Something To Chew On Why Should I join the ARRL?

I'm asked a lot at meetings and hamfests "*what is the ARRL doing for ME, for that \$49 per year.*" Ok, that's a fair question to ask, \$49 doesn't grow on trees, I get that. Now, I want you to know, whether you're an ARRL member or not, I feel that everyone has a right to ask that question. If you haven't joined yet, or have let your dues lapse, maybe reading this article the entire way through will change the way you have thought about the ARRL. In any case, it's your choice obviously, money is money, and I don't hold it against anyone that chooses not to belong!

First, I will tell you that it's the only organization that advocates for Amateur Radio, and its necessity in times of need to the U.S. Congress, and to the FCC. It's funny when you think about it. There's many YouTube, Facebook text and video news outlets reporting daily to amateurs all over the globe. There's even been several monthly national magazines in circulation over the years, but ask yourself this, who, other than the ARRL, has appeared in front of Congress advocating Amateur Radio? Who, other than the ARRL has signed MOU's with FEMA, Red Cross and the Salvation Army advocating for Amateur Radio? I'll leave you to ponder that one on your own. You may want to do a search on Google to see if you can dig up even one. I doubt it, but it will be interesting to see if anyone does find one.

Now, I hear that the ARRL is nothing more than a book publishing company, and there not interested in us (the dues paying members). Really? If they didn't publish the **Handbook** for example, where would we go to get information about RF circuitry that doesn't exist anywhere else? If they didn't publish many of the great "**How To's**", how would we learn to setup our stations, digital modes, proper grounding techniques and so on? Of course the ARRL is in the publishing business! I for one am very thankful for it! There's been so many great books published by the ARRL over these 100 plus years. Now, as far as not paying any attention? I don't quite understand that one, anytime I've called out there with a problem or a question, I get it answered. I will admit, it's not always the answer I was wanting to hear, but they do answer the question, none-the-less.



I know that we've all read various articles from folks who seem to always find something wrong with how things are run at ARRL. I'm simply amazed at how fast some folks get all worked up over these negative posts without even bothering to find out for themselves if what was posted is really what happened or not. Yes, sometimes we all jump to conclusions when we shouldn't, but we really need to make sure we do a little digging on our own before we go typing away on social media. Doing that gets nothing accomplished other than just more of the same old false information that seems to run rampant on those outlets these days.

Now, if you really want to know "what does the ARRL do for that \$49, here's just a brief list of some of those things."

Advocacy Programs		
PRB-1 and Antenna Protection Legislation	Lobbies for spectrum protection – Intruders	Lobbies for additional bands. - WARC and VLF
Represents the interests of US hams at IARU	Rules Enforcement – Volunteer Monitor Program - Training Courses	Technician Licensing
General Licensing	Extra Class Licensing	Teachers Institute

ARRL Laboratory		
Technical Information Service	Tests new equipment and provides reports	RFI Assistance
Provides Social Media Programming		

Volunteer Counsel Program	Technical Specialists	Volunteer Consulting Engineer Program
Volunteer Instructors	W1AW - Training and Bulletins	Electromagnetic Compatibility Committee
RF Safety Committee	VEC - examinations	Publications - Technical and Operating Journals
QST Monthly Journal	ARRL Outreach Programs - Youth & Schools	On The Air, QEX and NCJ Bi-Monthly Journals
Heritage Museum	ARRL Foundation Scholarships	QSL Service - incoming and outgoing
NTS & ARES	LoTW	Public Service Honor Roll

On the Air Awards		
DXCC	WAS	WAC
VUCC	A-1 Operator Club	Triple Play
Fred Fish Memorial Award	Morse Code Proficiency	Elmer Award
First Contact Award		

Contests		
Straight Key Night	June VHF	Rookie Roundup RTTY
Kids Day	Field Day / Winter Field Day	EME 23 GHz and Up
RTTY Roundup	Rookie Roundup - CW	EME 50-1296
January VHF	IARU HF World	School Club Roundups
International DX, CW and Phone	222 MHz and Up	160 Meter Contest
Nov Sweepstakes CW and Phone	10 GHz and Up	10 Meter Contest

Ok, I think you get the idea. Yes, \$49 per year is steep, especially for those of us on fixed incomes. What I've listed above is not everything that they do either. Look at the dues this way, it's just one cup of McDonald's coffee per week that you would give up, it's really not that bad when you think of it that way. Now, like I said at the beginning of this article, \$49 doesn't grow on trees, and I don't hold it against anyone that chooses not to belong.

Got questions? Feel free to contact me anytime. My email is: [n8sy@arrl.org](mailto:n8sy@arrl.org)



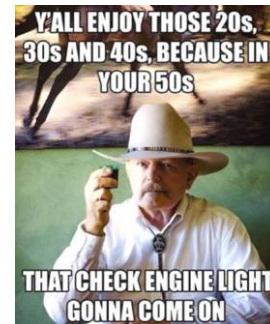


## Happy Birthday PCARS Members

PCARS members having their birthday in **March**:

KB3GXB Jennifer  
KE8KCJ Montie  
KE8REF Mark  
WX4QZ Daryl  
K8QF Russ

WB8LCD Tom  
N8FUM Dan  
W8CYN James  
W8KNO Joe



## PCARS IO Group

Members are reminded that PCARS has a IO Group site dedicated to PCARS. It's a great site to sign up for and get on the mailing list for important PCARS information.

Check out the PCARS IO Group at:

<https://groups.io/g/PCARS>

*Two things every member should do.*

1. Check the PCARS web site every day, maybe a couple of times a day, to see new info that's posted.
2. Join the PCARS IO Group. That's a great place to post message when you are looking for information or have a question about something. Try it - you just may like it!!



## PCARS Custom Coffee Cups - Limited Edition - Almost Gone

PCARS has obtained a limited number of special, custom made coffee cups that are available only to members.



**Supply is limited.** If you are a current (PAID) member of PCARS you get one coffee cup for **FREE** !! The only catch is you have to claim it from the **Treasurer - Greg, KA8TOA**. Greg has a list of current members and will check off your name when you get your **FREE** PCARS coffee cup.



There are a **very limited number of extra coffee cups** for sale at \$5.00 each.

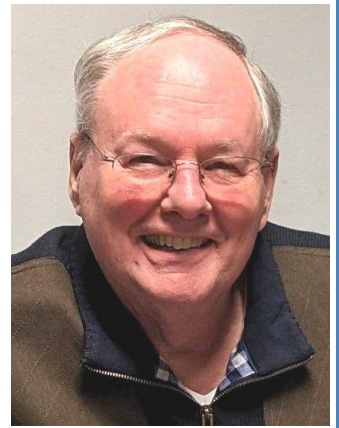
**Contact Greg for all of the details: [Treasurer@portcars.org](mailto:Treasurer@portcars.org)**





## Tech Tips - Component Testing

*Jim, AC8NT*



### This month's topic: What is that Component?

Last month we talked about identifying unknown toroids in your parts box. To continue that theme, we will be discussing identification of other items in your junk box.

Many of us over the years have collected a bunch of parts that are unidentified or of unknown value. We all know of that 1-pound bag of miscellaneous parts that the guys at the hamfest wanted to sell for the unbelievable price of a couple of bucks. Too good to pass up. After years the bag is still under the bench. What can we do to determine what they are and their values? If known, maybe we could use them.

Let's start with a method to determine at least what it is (resistor, capacitor, inductor, transistor, diode etc.) A multimeter is a good start. It will at least tell you if it might be a capacitor (no continuity in either direction), diode (continuity in one direction), or resistor (continuity in both directions). If a resistor, it will even give you the value. But it won't do a good job of identifying easily inductors or types of transistors. Maybe we need something a little bit better.



For about \$35 you can buy an inexpensive component tester/identifier on Amazon like the DROK transistor tester. Most of the time it will identify the item and tell you what its basic parameters are. Simply connect the component to the tester (doesn't matter what wire goes to what pin) and push test. If it is an inductor, capacitor, or resistor, it will tell you what it is and its value. If a semiconductor, it will tell you the type (NPN, PNP etc.); identify the leads (collector, emitter, base); and give you the hfe of the part. For \$35 it can identify about 80% of your junk box and often identify defective parts.

If you want to spend a little more money, you can buy the ET430 LCR meter. Although this will only determine the value of passive components, it does an outstanding job of determining the component's value. I have one of these, and I love its functionality and accuracy. It costs about \$150, so it may be too rich for some. I pair this with tweezer probes to identify surface mount components and it has kept me from making a lot of mistakes in installing the little buggers.



If you really want a great tool for semiconductors, you can't beat the DCA Pro. Connect the unknown device to the three wires (doesn't matter which clip to which component lead.) and it will determine the type of the device, the component leads and most of the specifications needed to use the device. When connected to a PC it is a full function curve tracer. This instrument has the best "bang for the buck" of all my instruments. The following link is a

video on the device: <https://www.youtube.com/watch?v=XpbZ2k15kSk>



If you can't or don't want to identify your parts you can always use them for art projects. The following Instructable can give you some ideas. <https://www.instructables.com/Electronic-Components-Art/> At least you will have used them for something.

As I have said before, if there is interest the club might purchase these instruments. Just let me know if you think this is a good idea. I am also willing to bring mine to the club for a demonstration.



# Ohio NVIS Day - April 22<sup>nd</sup>



**Bret, KD8SCL**

**ARRL Ohio Section Emergency Coordinator**

**It's coming! Ohio NVIS Day 2023 will be held Saturday April 22, from 10AM until 4PM ET**

The purpose of NVIS day is to construct and try various antenna ideas, all working as NVIS (Near Vertical Incident Skywave) antennas. These antennas are low to the ground and provide coverage generally within a 400 mile radius- extremely important for regional HF communications in an emergency.

Take a big step forward and build upon the concept to answer the question, "How would we actually use these antennas?"

For 2023, we have added a couple operating scenarios that will make your day more fun and be a learning event for actual disaster communications. We propose a commercial power blackout, with the need to communicate within your ARES® district and to 'The Sarge' at the Ohio EOC in Columbus. Here's the deal:

1. The event runs from 10 AM until 4 PM local time.
2. Stations will construct and test NVIS antennas.
3. Transmit power is limited to 100 watts.
4. Power for the station will be any form of "off-grid" supply: typically, generator, battery or solar or whatever form you might have in an emergency setup. (Optional, but preferred)
5. Stations may test antenna coverage as in the past by contacting as many different locations as possible.
6. Stations will originate a message to their ARES® District net and to W8SGT reporting their location.
  - a. This message may take any form: ARRL message form or any other can be used, doesn't matter. If you're going to use the traffic system, ARRL message form is recommended.
  - b. The message should contain the call sign, operating location (include county) and number of operators. Any other brief antenna information is optional but appreciated!
  - c. Contact with the District net may take place on VHF or HF (Repeaters OK).
  - d. WinLink may also be used as long as it sent via RF, local node (VHF, UHF) or an HF node. For more information on node locations, visit [WinLink.org](http://WinLink.org).
7. Operating frequencies are proposed to be in the 80 and 40 meter bands. Voice is preferred for testing. Digital messages may be passed to OHDEN or Buckeye Net as available.
  - a. Optimum frequencies centered around but not limited to: 3.902 and 7.240
  - b. Digital OHDEN frequency: 3585 (typical is Olivia 8/500)
  - c. If additional exercise is desired, try 60 meters, Channel 5493.5 for voice and digital

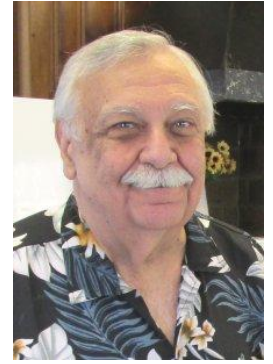
You can create your own log (Excel preferred) or use the attached format. Be sure to include a photo of your group or your antenna! Submit your results to [contest@n8ara.org](mailto:contest@n8ara.org) Have fun! Take a lunch break! I hope to hear you!!





## FYAO 2023 Contest Results

**Chuck, W8PT**  
FYAO Chairman



On February 11<sup>th</sup>, we held our annual QRP Event - **Freeze Your Acorns Off**. We had the best turnout that we have had in many years. There were around 50 attendees that signed in and we had seven stations operating during the contest. We enjoyed some mild WX in spite of thinking that we would have snow and cold temps. The FYAO Contest results are as follows:



- 1<sup>st</sup> place - KE8ARB (Brandon, KE8ARB & Tim, W8GPN) - 4782 points**
- 2<sup>nd</sup> place - N8QE Bob - 4620 points**
- 3<sup>rd</sup> place - KC8JC (JC, KC8JC & Jim, AC8NT) - 4394 points**
- 4<sup>th</sup> place - WG8X John - 2099 points**
- 5<sup>th</sup> place - AD8FQ (Ben, AD8FQ & Agnes, AD8IR) 293 points**
- 6<sup>th</sup> place - KD8WCK Rick - 143 points**
- 7<sup>th</sup> place - WD8DAU Dan - 11 points**



And, as in the past, we also held our contest within a contest - namely the Best Recipe Cook-Off. The results of this contest are as follows:



- 1<sup>st</sup> - Whiskey Meatballs - Nick, AC8QG**
- 2<sup>nd</sup> - TIE - Sloppy Joes - John, WG8X**  
**Robin's Chili - Bill, WB9LBI**
- 3<sup>rd</sup> - Chicken Paprikash - Tim, W8GPN**
- 4<sup>th</sup> - 4 way TIE - Vegetable Soup - Rick, KD8WCK**  
**Split Pea Soup - Agnes, AD8IR**  
**Pulled Pork - Brandon, KE8ARB**  
**Stromboli - Jim, N8SKG**



We had a great time and there was a lot of very delicious food to munch on. If you showed up and went home hungry, it was your own fault.

I cannot figure out why we didn't have 100 people show up. This is a time when we can support our fellow members who take the time and the effort to set up a portable station and show others how it's done. Come on PCARS Members.... take part in the club's events. If you were otherwise involved, then we understand. But those of you who had nothing planned for that Saturday, you could have joined us and had some fun with your fellow club members. Please plan to attend in February 2024. Make your mind up to join us, even if it's only for an hour. Come on out and have some **BIG FUN!!**





# FYAO 2023 Photos









## Fun at FYAO

**Brandon, KE8ARB**



February provided great weather for our annual QRP event "Freeze Your Acorns Off!" This was my second time operating the event and I decided to bring two radios and operate as a team with Tim, W8GPN. We setup a 20m delta loop in a small clearing in



the trees on a 31' kite pole. The base of that antenna was about 5 or 6 feet of the ground and it helped the tuning slightly. We ran some RG8X back to the bus and through the window to an IC-705. I operated the 705 on both SSB and digital with a mix of FT4 and FT8. Being a QRP event, we only used 5 watts all day and the radio barely used any battery at all.

Our second portable deployment consisted of a 40m EFHW thrown in a tree about 30 feet up. We ran the antenna almost back to the bus and only needed a short section of RG-8X to connect it to the QDX. Tim operated the QDX on a macbook running WSJT-X. The QDX is powered by a 12 volt lithium battery that served as an RC plane battery in its early days. By the time we finished operating the event, it still had plenty of juice left.

All in all, the event is a giant success! We had people stopping by to see our setup in the bus. They chatted and we enjoyed going over the deployment with folks who wanted a tour. My kids joined me for a bunch of the event. They ripped around on rip sticks and helped setup and tear down the equipment. My favorite was the sign that Ethan made that had a squirrel and K8BF on it! He hung it on the back of the bus so passersby would know we were in there.



What event would be complete without a completely unbiased cooking contest with ABSOLUTELY NO COLLUSION! My wife and I put together some pulled pork sandwiches. They cooked in the slow cooker for about 14 hours before the event. Tim brought a chicken paprikash that was out of this world! He generously sent some home with us and it was gone within minutes of being home!

Special thank you to Chuck, and everyone who helped put this event on. It was a tremendous amount of fun! Seeing everyone and operating radio in the chilly northeast Ohio sun makes for a great day! It's worth mentioning that the top three operators finished extremely close in points! It proves we've got some great, competitive operators within our event!



**PCARS K8BF**  
*The Club that puts the FUN in Ham Radio!*





## Contest University - 2023

# Contest University

**Tim, K3LR**  
Contest University Chairman



[Registration](#) is now open for the 2023 Dayton Contest University (CTU) to be held all day on Thursday, May 18, 2023, at the [Hope Hotel in Dayton, Ohio](#). This is the day before [Hamvention](#) opens in Xenia, Ohio. CTU 2022 Dayton was amazing - we expect 2023 CTU to be even better!

Eight different countries have hosted CTUs over the past 14 years: USA, Australia, Russia, Germany, Italy, England, Brazil, and Finland. Over 8,500 students have attended these CTUs with more than 100 CTU professors sharing their contesting experiences.

**2023 will be the 14th year for CTU Dayton.** To give you an idea of the quality of the CTU content and activities, you can see [videos and PDF presentations from past CTUs on their website](#).

The 2023 CTU Dayton course outline will be posted once all of the courses have been confirmed. Check the website for updates. Each presentation is carefully prepared with up-to-date information. The CTU professors are experienced testers and will share their knowledge.

There are scholarships (registration fee paid) available for CTU through a grant from the [Northern California DX Foundation](#) (NCDXF) for students who are up to 25 years old. Please use the "contact us" button on the CTU website to get more information. Also, 2023 student registration information is on the [CTU website](#).

As we did last year, if you want to sign up for the 2023 Dayton CTU and you have given a talk (or will give one by Hamvention 2023) about amateur radio to a ham radio club, Hamfest, or group by May 18, 2023, you qualify for a \$10 discount on your registration fee. Please choose the "Registration with club talk discount" option to get the discount. Spreading the word about amateur radio is lots of fun and can save you money at CTU!

Thanks to all of the CTU sponsors, including [Icom America](#), [DX Engineering](#), the [Northern California DX Foundation](#), [The YASME Foundation](#), the [Radio Club of America](#), and [CQ Magazine](#) for making CTU possible.

Thanks to Teri Grizer, K8MNJ; Amy Leggiero, N8AMY and Jerry Haislip, K1SO for all of their help with CTU. Special thanks to Scott Neader, KA9FOX, from [qth.com](#) for hosting and constructing the CTU headquarters website.

**See you in Dayton at CTU 2023 and Happy New Year.**

The screenshot shows the Contest University website. At the top, there's a navigation bar with links: Home, 2023 Course Outline, 2023 Professor Bios, Files, Videos, and Contact Us. The main header features the 'Contest University' logo and the event details: 'Hope Hotel, Thurs, May 18, 2023, Wright Patterson AFB, OH USA'. Below this, a paragraph states: 'Contest University will be held on Thursday May 18, 2023, from 7:00am to 5:00pm, at the Hope Hotel in Dayton, Ohio. This is the day before the Dayton Hamvention officially opens. Don't miss this rare opportunity to gain knowledge that may take you years of practice, trial and error or lost time to learn otherwise. Get the edge to improve your scores and put your station in the winners circle today!'. A URL is provided: <https://www.hopehotel.com>. A 'Register Now' button is visible, along with the registration URL: <https://www.contestuniversity.com/registration/>. At the bottom, it says 'Thanks to KA9FOX and QTH.com for donating the web design and web hosting services to CTU!' and 'Host up to 4 different Web Sites for Just \$4.95/mo.' with the QTH.com logo. On the right side, there's a 'Premier Sponsors' section listing DX Engineering and ICOM, and an 'Additional Sponsors' section listing YASME Foundation, Northern California DX Foundation, The Radio Club of America, QTH.com, and Dayton Hamvention.



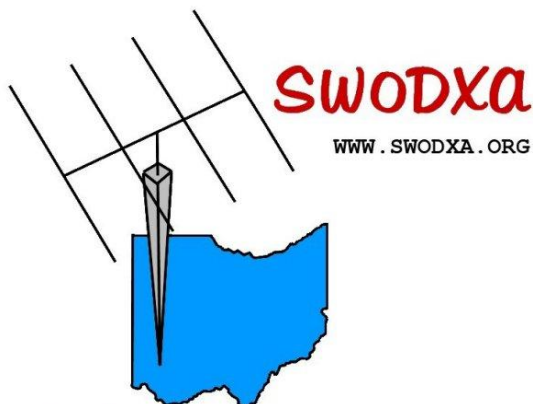
# South West DX Dinner - Hamvention® 2023

**Bill, AJ8B**

South West Ohio DX Association



The (SWODXA) is pleased to announce that we will again sponsor the DX Dinner, held in conjunction with the 2023 Dayton Hamvention. This, our 38th annual dinner, will be Friday, May 19th, 2023, at the University of Dayton Marriott, 1414 S. Patterson Blvd., Dayton, OH 45409.



We will have another fantastic array of great prizes at the Dinner and the Forum on Saturday!

There will be a cash bar starting at 5:30 p.m., with dinner served at 7:00. Following the event, there will be a separate room and cash bar available for more fellowship. This is an excellent opportunity to meet new hams and to renew old acquaintances as well as to learn about past DXpeditions and those in the planning stages.

The Marriott is very accommodating to a group our size. The dining room is very large and located on the ground floor so there are no steps and there is ample free, on-site parking.

This dinner is always well attended by some of the most avid DXers in the world. Previous dinners had over 400 attendees! As in the past, there will be some major door prizes, and there is always great anticipation as to who will be named the "DXpedition of the Year" as well as who will be inducted in to the CQ DX Hall of Fame. The keynote speaker will be Adrian Ciuperca, KO8SCA.

Tickets can be purchased on the SWODXA Events website. More information can be found on the club website: <https://www.swodxa.org/> Program details and a list of the prizes will be on the website as they become available, and updates will be sent out regularly via Twitter. Follow us on Twitter - @SWODXA





## Contest Dinner - Hamvention® 2023

### Contest Dinner

**29th Annual Dayton Contest Dinner is May 20, 2023**

The North Coast Contesters will host the 29th Annual Dayton Contest Dinner at the Hope Hotel, located at Wright-Patterson Air Force Base in Dayton, Ohio, on Saturday night, May 20, 2023, at 6:30 PM.

Master of Ceremonies will be John Dorr, K1AR, and the 2023 Keynote Speaker is Bryant Rascoll, KG5HVO. Rascoll, of Montgomery, Alabama, was the 2018 recipient of the Bill Pasternak Memorial Amateur Radio Newline Young Ham of the Year Award. He is also known as a competitive contester who is able to send CW over 60 WPM.

The 2023 CQ Contest Hall of Fame inductees will also be announced during the 2023 Dayton Contest Dinner.

Tickets are on sale now. <https://www.contestdinner.com/>



## Top Band Dinner - Hamvention® 2023



**Tim, K3LR**  
Top Band Dinner Chairman

**Annual Dayton TopBand dinner**

Continuing the great Dayton Top Band Dinner tradition that George, K8GG and George, W8UVZ started, I am proud to announce the Annual Dayton TopBand dinner. Dinner reservations are now available for 2023!

Friday evening May 19, 2023 at the Hope Hotel. Top Band Social hour is at 6:00 PM and Dinner starts at 7:00 PM. Come and have dinner with the guys you work on 160 meters and enjoy great TopBand discussions.

I am proud to announce that our featured speaker will be Jon, AA1K. He has worked 329 DX countries on 160! In addition to AA1K we will pass the mic so everyone can introduce themselves. We will also have the exciting TopBand DXCC count down.

The 2023 Dayton TopBand Dinner details are here: <http://topbanddinner.com> Scroll down to make your reservations. Thanks to Teri, K8MNJ for coordinating and organizing the TopBand Dinner.

If you enjoy having fun on the 160 meter band, the Annual Top Band Dinner is for you! Hope to see you at the 2023 Dayton TopBand Dinner



# Field Day 2023 - 20 Meter Station



**Mike, N8WCP**  
20 Meter Station Captain



Field Day 2023 planning has begun and we're looking for members to operate the 20M station.

Last year we added FT4/FT8 on 20M to keep the contacts rolling during the nighttime, this year we'll also have 160M available for nighttime digital contacts.

If you're interested in participating with the 20M station, send me an email with your preferred time slot at [n8wcp.us@gmail.com](mailto:n8wcp.us@gmail.com).

DAY	UTC	LOCAL TIME	OPERATOR
SAT 24 <sup>TH</sup>	1800 - 2000	2:00P - 4:00P	BOB - N8QE
SAT 24 <sup>TH</sup>	2000 - 2200	4:00P - 6:00P	CHUCK - W8PT
SAT 24 <sup>TH</sup>	2200 - 0000	6:00P - 8:00P	MIKE - N8WCP
SAT 24 <sup>TH</sup>	0000 - 0200	8:00P - 10:00P	GREG - KA8TOA
SAT 24 <sup>TH</sup>	0200 - 0400	10:00P - 12:00A	
SUN 25 <sup>TH</sup>	0400 - 0600	12:00A - 2:00A	
SUN 25 <sup>TH</sup>	0600 - 0800	2:00A - 4:00A	
SUN 25 <sup>TH</sup>	0800 - 1000	4:00A - 6:00A	
SUN 25 <sup>TH</sup>	1000 - 1200	6:00A - 8:00A	
SUN 25 <sup>TH</sup>	1200 - 1400	8:00A - 10:00A	
SUN 25 <sup>TH</sup>	1400 - 1600	10:00A - 12:00P	CHUCK - W8PT
SUN 25 <sup>TH</sup>	1600 - 1800	12:00P - 2:00P	





## Field Day 2023 - Flex Station



**Rick, K8CAV**  
Flex Station Captain



By the time you read this article, there will be just short of four months before PCARS Field Day 2023 kicks off on June 24<sup>th</sup> -25<sup>th</sup>. PCARS is again operating in Class 4A, and will run 20 meter phone, 40 meter phone, CW, and Flex stations, along with a VHF station.

Last year PCARS was second in the country in Class 4A, with only the Huntsville ARC (Alabama) higher than us, though by a significant margin. HRAC made 39% more contacts than did PCARS, and overall QSO points were 49% higher than PCARS, indicating that HARC logged a higher percentage of CW and Digital contacts than did PCARS. By far and away the largest number of contacts at the Flex station in 2022 were digital – 435 digital, 8 CW, and 6 phone. An increase in Flex station digital contacts of 50%, from 435 to 653, would contribute significantly to PCARS being competitive in Class 4A.

The Flex station is both band and mode agile, meaning we can operate on all of the non-WARC HF bands (with certain limitations) in phone, CW, or digital. The limiting factor in band selection is that CW and digital operate in the same sub-band of each HF band, and therefore can't operate at the same time in the same band due to de-sense/overload problems. To overcome this, CW is given priority choice of 20 meters or 40 meters and Flex digital is given priority choice of 80 meters. CW and Flex digital coordinate to make sure neither is on the same sub-band at the same time. Also, Flex can't operate on phone on 20 meters and 40 meters as we have stations on both bands for phone. In the past, Flex has operated on all the non-WARC bands from 80 meters through 10 meters. We are considering adding 160 meters this year.

There are a number of things that we are going to do to increase the number of contacts at Flex but the most important single thing is to make sure the schedule is fully staffed. Flex operates in two hour shifts; last year three operators had to pull double shifts to keep Flex fully staffed. I really need more operators to staff the Flex station. To help out, we are going to be conducting training sessions on operation of the IC-7300 (the radio used at Flex), and training on WSJT-X in FT8 and FT4 contest modes, as well as a session on logging software. If you would like to be an operator at Flex, please let me know as soon as possible with your preferred time email to [k8cav.coms@gmail.com](mailto:k8cav.coms@gmail.com).

DAY	UTC	LOCAL TIME	OPERATOR
SAT 24 <sup>TH</sup>	1800 - 2000	2:00P - 4:00P	
SAT 24 <sup>TH</sup>	2000 - 2200	4:00P - 6:00P	
SAT 24 <sup>TH</sup>	2200 - 0000	6:00P - 8:00P	
SAT 24 <sup>TH</sup>	0000 - 0200	8:00P - 10:00P	
SAT 24 <sup>TH</sup>	0200 - 0400	10:00P - 12:00A	
SUN 25 <sup>TH</sup>	0400 - 0600	12:00A - 2:00A	
SUN 25 <sup>TH</sup>	0600 - 0800	2:00A - 4:00A	
SUN 25 <sup>TH</sup>	0800 - 1000	4:00A - 6:00A	
SUN 25 <sup>TH</sup>	1000 - 1200	6:00A - 8:00A	
SUN 25 <sup>TH</sup>	1200 - 1400	8:00A - 10:00A	
SUN 25 <sup>TH</sup>	1400 - 1600	10:00A - 12:00P	
SUN 25 <sup>TH</sup>	1600 - 1800	12:00P - 2:00P	



## QSO Today Virtual Ham Expo - March 25-26



### THE QSO TODAY VIRTUAL HAM EXPO MARCH 25-26, 2023 THE FUTURE OF AMATEUR RADIO BALLOONS IN THE CURRENT ERA

The QSO Today Virtual Ham Expo is proud to announce a panel discussion on March 25, 2023, at 12:00 PM PDT titled "The Future of Amateur Radio Balloons in the Current Era." The discussion will be moderated by Eric Guth 4Z1UG and will explore the current state of amateur radio balloons in light of recent events, including the United States Air Force's decision to shoot down unidentified objects in American airspace.

The panel will feature some of the most prominent figures in the field of amateur radio ballooning, including experts in the technology and enthusiasts who have used it to pursue their interests. The discussion will cover a wide range of topics, including the history of amateur radio balloons, the challenges faced by balloonists today, and the future of the technology in an era where the skies are becoming increasingly crowded.

According to Eric Guth 4Z1UG, the moderator of the discussion, "The future of amateur radio balloons is a topic of great importance to the amateur radio community, especially in light of recent events. We need to discuss how we can continue to pursue our interests in the face of new challenges and restrictions, and explore new avenues for innovation and growth in the field."



**Quote:** "The future of amateur radio balloons is a topic of great importance to the amateur radio community, especially in light of recent events. We need to discuss how we can continue to pursue our interests in the face of new challenges and restrictions, and explore new avenues for innovation and growth in the field." - Eric Guth, 4Z1UG, founder of the QSO Today Virtual Ham Expo and moderator of the panel discussion.

The QSO Today Virtual Ham Expo is a leading online event for the amateur radio community, bringing together enthusiasts, experts, and manufacturers from around the world. The Expo features a wide range of presentations, exhibits, and interactive sessions, covering topics from radio technology to emergency communications and everything in between.

This year's event promises to be the most exciting yet, with a lineup of speakers and panelists that is sure to inform and inspire. Registration for the Expo is open now, and attendees can sign up for the panel discussion on "The Future of Amateur Radio Balloons in the Current Era" as part of their ticket.

For more information on the QSO Today Virtual Ham Expo and to register for the event, please visit <https://www.qsotodayhamexpo.com>.





**FOR SALE: Cushcraft A50-5S 5 Element, 6 Meter beam.** This has been on my tower for about 5 years. I'm changing up the antenna system, and have no use for this beam. It is



due to come down on November 26<sup>th</sup>. \$75.00. **Channel Master AR-303 Light Duty Rotator** and controller combo. I bought it used, and took it to Field Day a couple times to turn my 6-Meter Moxon. It would be good for a small VHF beam, or TV antenna. This is a mast mount rotor. Comes with approximately 50' of 3-conductor control wire. \$75.00



**AR-40 Light Duty Rotator** and controller combo. Comes with the bottom mast mount bracket. Can handle up to 3.5 sq ft wind load when mounted inside of tower. Working, but I replaced it a few weeks ago while the tower was on the ground. The 5-conductor control wire is not included. \$100.00



**Contact: John Myers, WG8X** at [john@wg8x.net](mailto:john@wg8x.net), or 330-936-5021 [04/23]

**Available FREE to anyone who owns a Kenwood TS-2000 Transceiver: Kenwood TS-2000, non-functioning.** The X53-3910-00 Control Unit board is defective and unfortunately, no longer available. The transceiver was fully functional prior to the connector on the Control Unit board going bad, so all other boards and parts can be used as spares for your TS-2000. This transceiver is generously being made available by Bob, K8AAB. Bob would prefer that it be made available free, to any PCARS member who owns a TS-2000.

**Contact Rick K8CAV** at [k8cav.coms@gmail.com](mailto:k8cav.coms@gmail.com) [04/23]

**FOR SALE: Palstar LA-1K solid-state amplifier - \$3000, Palstar HF-Auto tuner - \$1200 if sold together - \$4000. Swan 600 Custom receiver & 600T transmitter (rare), digital readout - \$1000, QRP A.M. Transceiver for 75 / 80 meters Class-E modulation - \$100, RIGOL DM3068 service bench DVM - \$400, Bird 4362 (Ham-mate) wattmeter 140-180 MHz - \$100, Drake W-4 wattmeter - \$100, Drake WV-4 wattmeter (20 to 200 MHz) - \$100 with WV-4 for spare parts, Autek WM-1 dual reading wattmeter (remote coupler) - \$150, Autek RF-5 VHF/UHF antenna analyzer - \$50, Elecraft dual reading LED W-2 watt meters: (various configurations with remote couplers for HF & VHF/UHF) - \$200 with one coupler, \$300 with 2 couplers, Yaesu FT-2600 2-meter F.M. - \$100. Palstar SP-30B Black Speaker - \$75 All above are working including manuals, service notes, tubes, microphones, accessories, etc.**

**Contact: Jeff, WA8SAJ** - home phone at (440) 951-6406 [05/23]

**FOR SALE: From the estate of Neil Gerren, N8IL Icom 2820 vhf/uhf mobile Asking \$150 Siglent SDS 1202Y-E O-Scope Asking \$220 Elecraft P3 Panadaptor Asking \$550 Elecraft K-Pod Asking \$150 Elecraft KPA 500 Amp Asking \$1500 LDG AT 1000Pro autotuner Asking \$200 MURCH UT-2000 Tuner Asking \$50 (needs work) KMoon FY6800 Signal generator Asking \$100 HP 34401A Digital Multi-meter Asking \$200 PS 30SWii 30 amp Power supply Asking \$50 Kenwood PS53 Power Supply Asking \$80 Telepost LP-100A Digital Vector RF Wattmeter with LP-100 RF Sensor Asking \$300 Telepost LP-700 Digital Station Monitor with LPC-501 directional coupler Asking \$650 Alpha 9500 (Beast) Amp Asking \$3800**

**Contact: Tom, WB8LCD** - at (330) 554-4650 or email at [tomsly29@gmail.com](mailto:tomsly29@gmail.com) [04/23]

For Sale or Want Ad policy reminder: This is a PCARS *members only benefit*. Please don't ask to list items for a friend, relative or SK estate unless they are/were a member of PCARS. Requests come in from all over the USA (and beyond) to list items for sale or wanted items and we just cannot dedicate that much space to non-members. Listings are good for 3 months unless canceled or changed earlier.

The date listed after the contact information tells you when the ad expires - example: [05/23] indicates the ad will run until the end of May 2023.

## PCARS

**ARRL Volunteer Examiners:**  
serving the Amateur Radio community

**First Saturdays 10:00 am**  
at the club site in Ravenna

**February, April, June, August,**  
**October, December**



## Hamfest Calendar

Here are the current listings of local hamfests. Please note that all are **subject to change**. Stay current by checking the sponsoring club's web page before making your travel arrangements.



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**03/12/2023 - Northern Ohio Amateur Radio Society Winter Hamfest** - Location: Lorain County Community College - 1005 N. Abbe Rd. - Elyria, OH 44035 Website: <http://winterhamfest@noars.net> - Contact: Carl Rimmer, W8KRF - 3821 West 152nd Street Cleveland, OH 44111- Phone: 216-256-9624 - Email: [w8krf@w8krf.net](mailto:w8krf@w8krf.net)

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**03/19/2023 - Toledo Mobile Radio Association Hamfest & Computer Fair** - Location: Owens Community College - 30335 Oregon Road, Perrysburg, OH. Website: <http://www.tmrhamradio.org> Public Contact: Brian Harrington , WD8MXR - 4463 Holly Hill Drive Toledo, OH 43614 - Phone: 419-385-56524 - Email: [wd8mxr@gmail.com](mailto:wd8mxr@gmail.com)

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**04/15/2023 - Cuyahoga Falls Amateur Radio Club 67th Hamfest** - Location: Emidio & Sons Expo Center - 48 E. Bath Road - Cuyahoga Falls, OH 44221- Website: <http://www.cfarc.org> - Contact: Bruce Ferry , AK8B - 2907 Lee Rd. Silver Lake, OH 44224 - Phone: 330-790-1680 - Email: [hamfest2023@cfarc.org](mailto:hamfest2023@cfarc.org)

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**04/22/2023 - Tusco Amateur Radio Club Hamfest, Electronics, and Computer Show** - Location: Tuscarawas County Fair Grounds - 259 S. Tuscarawas Ave. - Dover, OH 44622 - Website: <http://www.w8zx.net> - Contact: Rick Dingman, KE8URA - 303 N. 5th St. Dennison, OH 44621 - Phone: 330-934-0575 - Email: [stick553311@gmail.com](mailto:stick553311@gmail.com)

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**05/19, 20, 21/2023 - Hamvention®** - Location: Greene County Fairgrounds and Expo Center - 120 Fairgrounds Road - Xenia, OH 45385 - Website: <http://Hamvention.org> - Sponsor: Dayton Amateur Radio Association - Public Contact: Jim Gifford , KD8APT - PO Box 964 Dayton, OH 45401 - Phone: 937-276-6930 - Email: [Media@hamvention.org](mailto:Media@hamvention.org)

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**07/08/2023 - Mansfield Trunkfest 2023** - Location: Richland Co. Fairgrounds - 740 N. Home Road - Mansfield, OH 44901 - Website: <http://iarc.club> - Sponsor: Intercity Amateur Radio Club - Public Contact: Danny Bailey , W8DLB - 104 East Thrush Ave. Apt. H Crestline, OH 44827 - Phone: 567-899-3881 - Email: [w8dlb60@gmail.com](mailto:w8dlb60@gmail.com)

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**08/20/2023 - Warren Amateur Radio Association Tailgate Swap Meet** - Location: Mosquito Lake State Park - 1439 Wilson Sharpsville Rd (state route 305) - Cortland, OH 44410 - Website: <http://w8vtd.org> - Contact: Larry Oliver, KD8LYX - PO Box 809 Warren, OH 44482 - Phone: 330-553-9579 - Email: [WARAW8VTD@gmail.com](mailto:WARAW8VTD@gmail.com)

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## Flex Net

**Rick, K8CAV**

Flex Net Coordinator



**Next FLEX Net will be Wednesday March 8<sup>th</sup> at 8:00 PM**

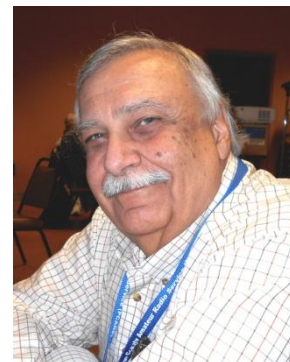
The next PCARS Flex Net will take place on Wednesday March 8<sup>th</sup> at 8:00 PM. This month we will meet on 28.350 MHz and will be using USB phone. This portion of the 10 meter band is open to Technician class licensees, so it's a great opportunity for Techs to enjoy fun on HF.

While the Flex Net is a good place to make contacts for the PCARS A to Z Award, it's also a place where you can evaluate how well your station does on HF using ground wave propagation. Last month's net was on 20 meters and while three of the stations in central Portage County were able to hear each other. I heard virtually no one here in northern Portage County. Operating on the Flex Net also helps build skills in relaying other stations when that becomes necessary. Last but certainly not least, it's a lot of fun, which is what PCARS is all about. So fire up those rigs and I hope to hear you on the Flex Net.

## DX & Contesting Special Interest Group

**Chuck, W8PT**

DX & Contesting SIG Coordinator



**Next SIG will be Tuesday March 28<sup>th</sup> at 7:00 PM**

I've put together a list of the contests in which K8BF will be participating this year. This is not a comprehensive list since there may be other contests in which we decide to play that may come up because of an impromptu decision by those meeting at the monthly DX/Contest SIG.

The present list is as follows: Dates are Saturdays and some of these extend into the following Sunday.

March 12 - Idaho QSOP and Wisconsin QSOP

April 29 - Florida QSOP

May 6 - 7th Call Area; Indiana; Delaware; New England QSOPs

June 3-4 - ARRL International Digital Contest

June 10-12 - ARRL June VHF Contest (Digital)

June 24 - Field Day

August 26 - Ohio QSOP & BBQ

September 16 - Texas QSOP; Washington State Salmon Run; New Hampshire QSOP

October 7 - California QSOP

And since the ARRL International Contest can only be one transmitter but can have many ops, we would do the KY-QSOP which occurs on the same days, using the other operator positions at the club site. No one can say that we are not trying to use our facility.

In each case, we will try to have as many of our four operating positions involved as possible. You will have advanced QST emails and can plan your participation accordingly. I'm hoping that in each case we will have a good number of members taking part at the club. I will also announce which contests we will be using as training sessions for those who want to try their hand at contesting. I really encourage you, who have not contested, to try your hand. No pressure and we will be very patient in that there are no dumb questions, and mistakes will be allowed.



## Antenna Special Interest Group

**Bob, N8QE**  
Antenna SIG Coordinator



**Next SIG will be Tuesday March 21<sup>st</sup> at 7:00 PM**

The next meeting of the PCARS Antenna Special Interest Group will be held March 21, 2023 at 7:00 PM. We will be in-person at the PCARS club site and on Zoom.

At the February meeting we looked for suggestions on a simple 160 meter antenna that can be used for PCARS Field Day operations during the night at the 20 meter station. The consensus was either a Inverted L or a 160 Meter Dipole Antenna. Brandon, KE8ARB also discussed his experience with home brewing a Hex Beam antenna which we all found quite interesting.

The Antenna SIG meetings are open to all PCARS members and guests. All ham radio operators or anyone interested in Amateur Radio are also welcome to attend.

We will be discussing all aspects of antenna design, construction, test equipment, and experimentation. Everyone is welcome to join the discussion, and talk about their projects with the group.

Join Zoom Meeting

<https://us02web.zoom.us/j/87220356586?pwd=czgVLzRPejVBT2hPSkVIZU1VaU84Zz09>

Meeting ID: 872 2035 6586

Passcode: PCARS2022

## Digital Special Interest Group

**Rick, K8CAV**  
Digital SIG Coordinator



**Next SIG will be Tuesday March 7<sup>th</sup> at 7:00 PM**

The next Digital Special Interest Group meeting will take place on Tuesday March 7th at 7:00 PM at the club site.

This month we'll be doing a follow-on to the presentation made at the February club meeting, on Slow Scan TV. We will be doing SSTV transmissions and receptions using both analog and digital modes and apps.

As always we'll have time available to answer any questions or help with any problems you may have in regards to digital communications by radio.

The meeting will also take place via Zoom at the link below. I hope to see you there.

Join Zoom Meeting:

<https://us02web.zoom.us/j/88355094567?pwd=ZzRvd1hmQWNhYlZEcGF0dVhuNlNiQT09>

Meeting ID: 883 5509 4567

Passcode: PCARS2022





## Portable Ops Special Interest Group

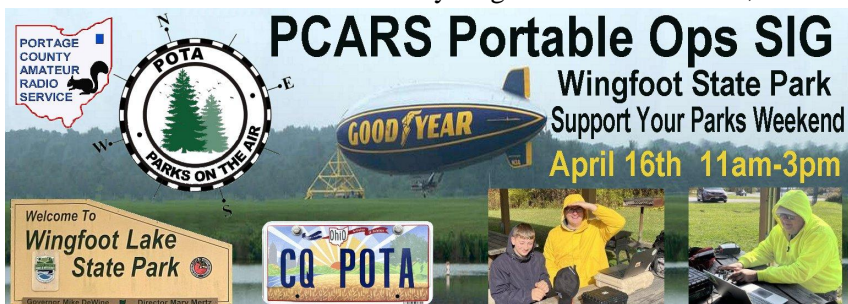
**John, WG8X**  
Portable Ops SIG Coordinator



**Next SIG will be Tuesday March 14<sup>th</sup> at 7:00 PM**

After the great turnouts at the last few POTA Field trips, the only question left to answer is “When will we do this again”? Well, the Spring Support Your Parks (SYP) weekend is coming up on April 15/16.

The 15<sup>th</sup> is out because of the Cuyahoga Falls Hamfest. But, we have rented the Buckeye Shelter at Wingfoot Lake



State Park (K-3516) for the 16<sup>th</sup>. So, plan on another get on the air Field Trip that day, from 11-3.

There's plenty of room to set up rigs & antennas. Bring your rig, and have some fun. Please bring a covered dish, or some goodies to share. No one ever leaves hungry from a PCARS event, right?

As the date gets closer, there will be some QSTs sent out about this as well.

This will be one of the topics of discussion at the Portable Ops Special Interest Group on March 14<sup>th</sup>. As usual, we'll be meeting at 7 PM at the PCARS club site (705 Oakwood St, Ravenna). Bring your questions, show and tell, or just come to hang out.

**We'll also be streaming via Zoom. Here's the link:**

<https://us02web.zoom.us/j/89732195744?pwd=cldtZmxMcMfQOndhQWtJN0s2NUNnUT09>

**Meeting ID: 897 3219 5744**

**Passcode: PCARS2022**

Hope you can make it.

## Could Be Anything Special Interest Group

**Rick, KD8WCK**  
Could Be Anything SIG Coordinator



**Next SIG will be Tuesday May 30<sup>th</sup> at 7:00 PM**

We hope to have some interesting and different meeting topics in the future. Please feel free to join us on the 5<sup>th</sup> Tuesday of each month.

As May gets closer, more information will be published on the Could Be Anything SIG meeting Topic.



# St. Patrick's Day Award

## Saint Patrick's Day Award

The organizers of the **Saint Patrick's Day Award** are excited to announce the launch of a new web page where visitors can learn everything they need to know about the **Saint Patrick's Day Award**.

On the new page, you will also find the simple registration form to be completed by all participants in this year's festivities which will be running from the 16th-18th March 2023.

Previous years have seen over 100 amateurs register to participate and we are hopeful that this will continue to grow.

The award is an opportunity for amateurs around the world to celebrate Saint Patrick's day and turn the airwaves green.

The new page can be accessed at [www.stpatrickssaward.com](http://www.stpatrickssaward.com) We look forward to celebrating with you all.  
<https://www.facebook.com/St-Patricks-Award-1100697056639846/>



## HamCation® Youth and Educators Awards



**Carole Perry, WB2MGP**  
Director RCA, Youth Activities



At HamCation in February, two young hams gave outstanding presentations at the Youth Forum. Katie Campbell, KE8LQR spoke about "YLs in Stem and Ham Radio" and Seamus Bonte KE8GTT, spoke about "Sparking Interest in New Hams."

That evening Hamcation Officials presented the "Carole Perry 2023 Educator of the Year" award to Ken Lyons, KN4MDJ and Jim Storms, AB8YK.

It was an environment of joy for me; showcasing young hams in the morning; and honoring educators that evening.





## Young Ham Lends a Hand Contest - 2023

**Carole Perry, WB2MGP**  
Director RCA, Youth Activities



We want to reward a young ham who has volunteered to help an elderly person, a military person, his or her community somehow, or a young ham actively involved with recruiting other young people into ham radio.

There's no red tape; it's just me and my RCA Youth Activities evaluating the application forms. You will smile to know that we have had high caliber and terrific young hams who get nominated every year.

**I am accepting nominees for this contest to encourage volunteerism in our young hams. Forms may be submitted up until April 1st. The winner is usually announced at the Hamvention® Youth Forum. A \$100 stipend is awarded to the winner.**

This is sponsored by RCA and QCWA. Please contact me with any questions. All forms should be submitted to: [wb2mgp@gmail.com](mailto:wb2mgp@gmail.com)

### =====

#### Young Ham Lends a Hand Contest

Carole Perry WB2MGP [wb2mgp@gmail.com](mailto:wb2mgp@gmail.com)

Please submit the following requests for information about your nominee for this year's contest.

Information about your nominee:

Name and call sign

Age

Address

Home Number and Cell number

Please fill in YOUR name, relationship to the candidate and contact info.

Please describe reasons why this nominee is deserving of the award that looks for a young ham who gives back to the community by participating and helping in local events, assisting the elderly, assisting military personnel, or is instrumental in recruitment and/or training of more young hams.

### =====

#### Youth Activities Program

The Youth Activities program is chaired by RCA Director Carole Perry WB2MGP and has Richard Somers, Ernie Blair, Stan Reubenstein, Gordon West and Charles Kirmuss as committee members.

A major event for the committee is to moderate and to sponsor the annual Dayton Youth Forum where RCA Young Achievers, age 18 and below, give presentations highlighting their technical abilities and enjoyment of radio.

The RCA Young Achiever is a youngster 18 and below who has demonstrated technical excellence and creativity in wireless communications. We are always interested in receiving nominations for these talented young people. Please contact Carole at [wb2mgp@gmail.com](mailto:wb2mgp@gmail.com) to nominate someone as a Dayton Hamvention® presenter or as a student deserving the RCA Young Achiever award.

We are also always interested in supporting schools, scout groups, and museums that incorporate radio/technology in their programs. Support can be in the form of books, equipment, or curriculum. Please contact Carole at [wb2mgp@gmail.com](mailto:wb2mgp@gmail.com) for further information.

The Youth Activities members travel across the country to speak at radio conventions, to moderate Youth Forums, and to vet large organizations enlisting our help in motivating and supporting young hams and in introducing wireless technology to school curriculum.

Tax deductible donations specifically to RCA Youth Activities can be made through the Richard G. Somers Youth Scholarship Fund. Please contact Carole at [wb2mgp@gmail.com](mailto:wb2mgp@gmail.com) for further information.

# Charlie the Tuner's HF High-Lites

**Chuck, W8PT**  
a.k.a. "Charlie the Tuner"



## Greetings DXers

### Charlie the Tuner's DX High-Lites – March 2023

Not sure if March comes in like a lamb or lion, but whatever, it's always time to see if there are any DX events happening. Most of the bands have been open. But I am not sure what in the world is going on with 20m. It seems that everyone is on 10,12,15, and 17 meters. I'm sure that this is due to the fact that these bands, especially 10 & 15 meters are not open except when the sun spot cycle is at its peak. So everyone is concentrating on these bands to the exclusion of 20m. That's too bad since 20 is probably open also but not many stations are operating on it right now.

I'm hoping that this will change as the year goes on and that many DXers will populate 20m. In any case, there are a lot of things happening in the next few months that those of us who chase DX should be aware of. (Excuse the dangling participle please.) Let's see what's in store.

Thanks to W1AW, W3UR & The Daily DX, DL5ON & The DX News Letter, DXNews.com, DX-World.Net, I1JQI/IK1ADH & 425 DX News for the following DX information.

And as always, this report "could" contain "Pirate/SLIM" operation or more likely a "BUSTED CALLSIGN". As always, you never know, so... - "Work First, Worry Later".

**PLEASE NOTE:** The fact that donation requests, from various DXpeditions, are at times included in this column does not mean that PCARS or this HAM approves or disapproves of donating to the DXpeditions listed. I am only providing information for you to make up your own minds as to whether or not to donate.

## March...

**6W, SENEGAL.** Willy, ON4AVT will be QRV as 6W7/ON4AVT from Warang until March 31. Activity will be on 80 to 10 meters using SSB and various digital modes. This includes being active on Satellite QO-100. QSL to home call.

**9M2, Penang Island (AS-015)** Rich, PA0RRS will be active again as 9M2MRS from Penang Island (AS- 15), West Malaysia from 1 January until 29 March. He will operate CW (most of the time 'no split') and digital modes (RTTY, FT8 and FT4) on 40-10m. On FT8, he says, if there are too many callers, he will switch to F/H on 7056, 10131, 14084, 18095, 21084, 24911, 28091 kHz. QSL via Club Log's OQRS preferred), LoTW, or via PA0RRS. [TNX PA0RRS]

**C5, THE GAMBIA.** Gerard, F5NVF and Luc, F5RAV will be QRV as C5C until March 14. Activity will be on 80 to 6 meters using CW, SSB, and FT8. QSL via LoTW.

**CY0, SABLE IS.** It has been reported that Parks Canada-Sable Island has agreed to allow an additional day for CY0S. The dates are not March 20-30. WX conditions will be a factor. DXpedition. However, the team is preparing for very strong winds. Fundraising is on-going with 80% of the goal having been reached.

**D6, CONOROS IS.** D67X holiday stype DXpedition with op JF1OCQ. The dates are March 9-22. Bands planned are 160-10M SSB, CW and FT4/8. He will be running 500w and a vertical. QSL via JF1OCQ or LoTW, Club Log, or QRZ.

**FW, WALLIS AND FUTUNA ISLANDS.** Jean-Gabriel, F4CIX, is QRV as FW1JG and expects to be here until January 2024. He is active on 40 to 6 meters using SSB and FT8. QSL via LoTW.

**H4, SOLOMON ISLANDS.** Bernhard, DL2GAC will be QRV as H44MS from Honiara, IOTA OC-047, until May 8. Activity will be on 80 to 6 meters using SSB and some FT8. QSL to home call.

**HK0, PROVIDENCIA.** Francisco, HK3EA as 5J01EA and Gabriel, W4GDV (HK3MKQ) as 5K0VT will be active from Providencia Island (NA-049) until 5 March. They will operate SSB and maybe some FT8 on 80, 40, 20, 17, 15, 12 and 10 meters. QSL both callsigns via LoTW, eQSL or Direct to W4GDV (PO Box 1431, Greer SC 29652, USA); see



qrz.com under 5J01EA or 5K0VT for their QSLing policy.

**HR, HONDURAS.** Gerard, F2JD is once again operating as HR5/call until March 13. Operation on HF using CW, SSB and digi. QSL via home call, direct or buro.

**JA, JAPAN.** Special event station 8J1H90T is QRV until March 31, 2023 to celebrate the 90th anniversary of the city of Hiratsuka. QSL via bureau.

**JA, JAPAN.** Take, JI3DST will be active again from Miyakojima (AS-079) until 7 March. He will operate SSB and CW as JS6RRR, JI3DST/6, JJ5RBH/6 and JR8YLY/6, as well as JI3DST/p, JJ5RBH/p and JR8YLY/p on FT8. The QSOs will be made available for Club Log and LoTW Matching on the IOTA website.

**TR8, GABON.** Roland, F8EN ex CN8EM, FO8BV, 3C3CR, TR50R will be active again as TR8CR from Gabon, until 15 March 2023. He will operate on 30 - 10m, CW. Recent DX Spots TR8CR QSL via F6AJA.

**V31, Belize, Caye Caulker (NA-073),** Paul, VE3AXT will be active as V31AX from Caye Caulker (NA-073), Belize from until March 6. He will operate QRP on 20-6m. QSL via M0URX's OQRS.

**VP2M, MONTserrat.** Thaire, W2APF is once again QRV as VP2MDX until March 31. Operation from 80 to 10 meter using CW and SSB. QSL via LoTW or via home call.

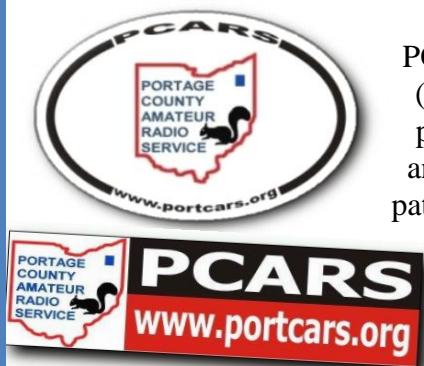
## April...

**HS, Thailand.** Lars, SM6NT will be active again as HS0ZME from Hua Hin, until April 2. e will operate mainly CW on 40-10 meters. QSL via SM6NT. [TNX The Daily DX]

**VK9W, WILLIS ISLAND.** Sands, VU2WXW is QRV as VK9WX while working at the Meteorology Weather Station here until the end of April, 2023. Activity of late has been on 20 meters using SSB around 1300 to 1400z. QSL via operator's instructions

That's it for now. Please, do yourself and all us other HAMS and get on the air. Preserve our frequencies for Amateur Radio. Until next month, W8PT (aka Charlie the Tuner) saying 73 for now....

## PCARS Patches & Stickers



PCARS logo patches (*iron on*) & stickers (stick on) are now available!! Put the patch on your hat, your shirt, your jacket and show off that PCARS logo!! The patch is about 3". The embroidery on the white patch is in Red, Black and Blue. Cost for a patch is only \$2.00

each and can be obtained at any PCARS meeting. There are 2 types of stickers available - a 4" x 6" oval and a 3" x 10" bumper sticker. Stickers are \$1 each. Show your pride in PCARS - Wear a patch, use the stickers!

See the club Treasurer: **Greg, KA8TOA** or e-mail him at: [Treasurer@portcars.org](mailto:Treasurer@portcars.org)



## W8NET On The Air from St. Croix

**Gene, W8NET**

### **PCARS member Gene Marsh, W8NET, was on-the-air from St. Croix in February**



Sometimes, you have to just go somewhere new. After the COVID-19 pandemic (with the travel restrictions and mask mandates and fear everywhere), Jackie (XYL) and I wanted to go somewhere we had not been before. Somewhere warm. Somewhere with beaches. Somewhere that I could play radio!



In late October, I was researching deals to a couple Caribbean destinations in mid-January through early March. I was salivating! Too many good place to go. However, three spots had the best deals for the time frame in question: Haiti, the Bahamas and the US Virgin Islands (specifically, St. Croix). The Bahamas was the cheapest airfare, but the accommodations were way more expensive. That made the money choices of Haiti and St. Croix. Safety, better beaches, no foreign amateur radio license requirement and it's a US territory? NO

BRAINER! And, you can drink the water! St. Croix here we come!

There is no direct flight from CLE to St. Croix (STX). So, our flight were from CLE to ATL to STX. It's an approximately 6 hour combined flight, with a 90 min layover. Not bad.

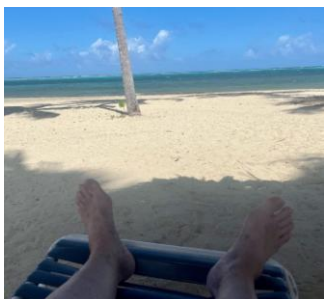


We stayed at the Club St. Croix in Christiansted. Very nice, very clean and great people. I wanted a first floor room so I could set up my antenna. It turned out perfectly! (see pic) Our first night – Monday Feb 6 – we wanted to eat somewhere nice, after traveling. The Bombay Club in Chistiansted (see pics) was incredible! We split a huge seafood platter, an order of calamari, and big bowl of AWESOME seafood bisque!



At dinner, Jackie and I discussed our (relaxed) schedule of events. We both did not want to be sunburned, and we did not want to. So, we planned our mornings and late afternoons for beaches; mid-afternoons and evenings for radio. St. Croix has MANY incredible

beaches and resorts. Five days is too short to see even a small sampling.



Two of the resorts we visited were stunning. The Buccaneer Golf Club and Resort was incredible. A private beach, great food, fantastic drinks. And, the Pelican Grove Resort has a big, long beach and even better food! It also has Godzilla – 3 ft long iguana! In all, we visited 7 beaches and resorts, all beautiful.



For my radio ops, it was both incredible and horrible. I made a huge amount of FT8 contacts on 10m, 15m, 17m and 20m, including 4 new countries! A nice haul of 367 FT8 QSO's! I also went to 2 POTA parks: Christinsted National Historic Park (K-0807), and Salt River Bay National Historic Park (K-0755). Only 41 contacts to K-0807, but 131 contacts from K-0755. It was fun being the chasee, rather than the chaser!



And then, in the evenings, 40m and 75m was horrible. I checked in the 3905 Century Club nets, both 40m and 75m. THREE DAYS of solar flares and static crashes, every few minutes. It was the worst conditions I have heard on 40m – EVER. 75m was better, but still very bad. I understood why: for example, on Tuesday, we





had SEVEN M-class solar flares. Wednesday and Thursday were not much better. All told, I made only FOUR 40m contacts and TWELVE 75m contacts for THREE NIGHTS. The Century Club members tried, but it was a very tough 3 nights.

I highly recommend going the Caribbean for a DXpedition, especially in the winter! Even with the iffy band conditions, it was fun to operate as a target. And, of course, it was a nice break from Ohio weather, with PERFECT weather on St. Croix! I **WILL** go back!



## Youth DX Adventure - 2023 - PJ2Y

**The Dave Kalter Youth DX Adventure announces their 2023 trip to Curacao on July 13-18<sup>th</sup>**



Applications now being accepted. The Caribbean Contest Consortium and Geoff Howard have once again agreed to let us use the PJ2T site for our 2023 trip. The support we give us is greatly appreciated. Especially thanks go to Uli, DL8OBQ for being our on-site representative. His travel and use of vacation to help the youth is noticed and allows us to make the trip. We will be once again applying for the call sign of PJ2Y. Team applications for the 2023 trip are NOW being accepted, click to download the PDF <https://www.qsl.net/n6jrl/TeamApplication.pdf>

## PCARS Thursday 2 Meter Nets

**Greg, KA8TOA**  
Net Control Coordinator



Thank you all for helping with this! Anytime you are unable to take the net, please give me as much advance warning as possible! **Check-in using the receiver located in Sugar Bush Knolls ~ 146.895 with a PL tone of 118.8. We also use EchoLink node K8BF-L**

The net control dates will be posted on the Club website. An email will be sent out after the posting. As usual if there are issues please contact me via the roadrunner email address.  
**Thanks to all of you for helping out.**

I am in desperate need for some net operators to run the Thursday night nets. It really is not that hard and it is fun, along with good training if you are ever needed for emergencies. I know we have been low on check-ins for the past couple of months. The commitment is only for once a month and this club is worth that. If anyone has ideas for the club, please do not hesitate to speak out at meetings or on nets or call or write. We appreciate the input. For now 73.

March	
2	N8WCP
9	K8CAV
16	WB8LCD
23	KD8WCK
30	KE8BWA

April	
6	KA8TOA
13	N8QE
20	N8WCP
27	WB8LCD

May	
4	KA8TOA
11	KE8BWA
18	K8CAV
25	N8WCP



The PCARS net is **BIG Fun** - tell your friends to check in via RF or EchoLink!



## *Photos from the February PCARS Meeting*



## PCARS - Feb 13, 2023





### Internet Achive now includes the PCARS newsletter

As reported in the February issue of "*The RADIOGRAM*", the Internet Archive's [Digital Library of Amateur Radio & Communications](#) is quickly growing to become an important archive of radio's past and present. The collection has blossomed to well over 51,000 items related to ham radio, shortwave listening, scanners, and related communications. The [newest additions](#) include books, journals and magazines, newsletters, and archives of early Internet discussion lists.

Radio clubs utilize the DLARC archive to provide long-term backup of content and increase their visibility to new audiences. The **Portage County Amateur Radio Service** has its complete collection of newsletters, - *The RADIOGRAM* - from February 2006 (Volume 1, number 1) to the present documenting our club history, now on the Internet Archive.

Thanks goes out to Kay Savetz, K6KJN - Program Manager, Special Collections - [kay@archive.org](mailto:kay@archive.org) - Mastodon: [dlarc@mastodon.radio](mailto:dlarc@mastodon.radio) for uploading the PCARS newsletter to the Internet Archive.

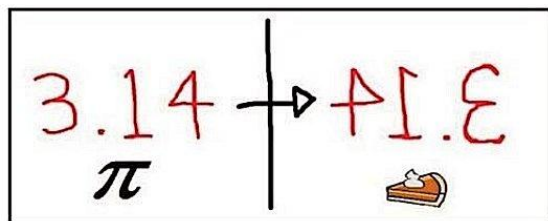
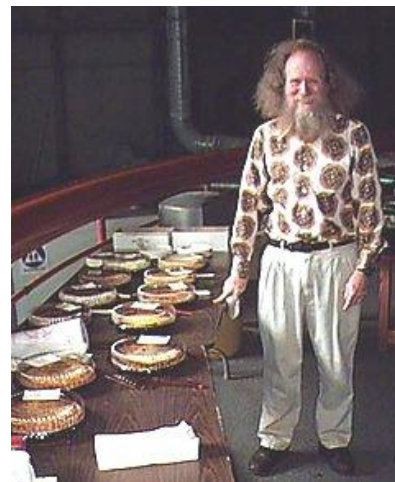


## Pi Day - March 14th

**Pi Day** is an annual celebration of the mathematical constant  $\pi$  (pi). Pi Day is observed on March 14 (3/14 in the month/day format) since 3, 1, and 4 are the first three significant digits of  $\pi$ . [2][3] In 2009, the United States House of Representatives supported the designation of Pi Day.

**History:** In 1988, the earliest known official or large-scale celebration of Pi Day was organized by Larry Shaw (**photo at right**) at the San Francisco Exploratorium, where Shaw worked as a physicist, with staff and public marching around one of its circular spaces, then consuming fruit pies. The Exploratorium continues to hold Pi Day celebrations.

On March 12, 2009, the U.S. House of Representatives passed a non-binding resolution (111 H. Res. 224), recognizing March 14, 2009 as National Pi Day. For Pi



Day 2010, Google presented a Google Doodle celebrating the holiday, with the word Google laid over images of circles and pi symbols and for the 30th anniversary in 2018, it was a Dominique Ansel pie with the circumference divided by its diameter.

The entire month of March 2014 (3/14) was observed by some as "Pi Month". In the year 2015, March 14 was celebrated as "Super Pi Day". It had special significance, as the date is written as 3/14/15 in month/day/year format. At 9:26:53, the date and time together represented the first 10 digits of  $\pi$ .

**W8PT says: "What could be better than FT8 with a Raspberry Pie ?!"**



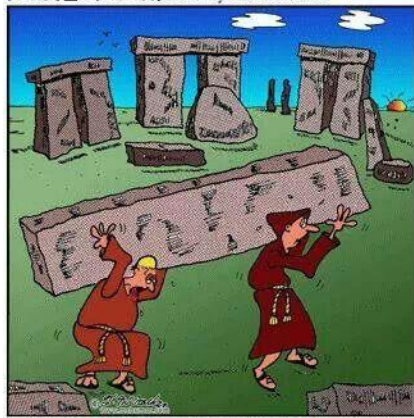
## Daylight Saving Time Starts March 12th

### SPRING FORWARD FALL BACK

On the morning of Sunday, March 12, daylight saving time will once again commence. Clocks will spring forward one hour at 2 a.m., and we'll lose that hour of sleep. The tradeoff is that the sun will start setting after 7 p.m. in Ravenna for the first time since October. Yep, Sunday March 12<sup>th</sup> **Daylight Saving Time** starts. At 0200 local, turn your clocks *forward* 1 hour.



McHUMOR.com by T. McCracken



**Remember UTC (Zulu, GMT) time does NOT change.**

*Examples:*

**March 11<sup>th</sup>** - we are still on **EST** (Eastern Standard Time).

At 0800 EST (8 am for you non-military people) it is 1300 UTC (1 pm) - That is a five hour difference between Ravenna, OH and Greenwich, England.

**March 12<sup>th</sup>** - we are now on **DST** (Daylight Saving Time).

At 0800 EDT (Eastern Daylight Time) it is 1200 UTC (noon) - That is a four hour difference between Ravenna, OH and Greenwich, England.

Should the U.S. end daylight saving time? No one actually likes losing or gaining an hour of sleep for the sake of more daylight, do they? Recent polls have found that only 35% of Americans support resetting their clocks every fall and spring, while 59% want to see daylight saving time made permanent. And that sentiment appears to have translated to legislative action.

In the past five years, 19 states including Ohio have enacted legislation or passed resolutions to provide for year-round daylight saving time, if Congress were to allow such a change, and in some cases, if surrounding states enact the same legislation, according to the National Conference of State Legislatures. The key phrase there is if Congress were to allow such a change.

Under the Uniform Time Act, states and territories have the power to opt out of daylight saving time and switch to standard time, which Arizona, Hawaii, Guam, American Samoa, Puerto Rico and the U.S. Virgin Islands have done.

If the country were to switch to year-round daylight saving time, Ohio would move to Atlantic Time, the time zone for Puerto Rico, much of the Caribbean and Canada's Maritime provinces.

So, despite what states want, a switch to year-round daylight saving time requires a change in federal law.





## PCARS Ham Radio License Plates Wanted !!! PLEASE !!

**Dig out that amateur radio call sign license plate (with your present call sign), clean it up and bring it to be permanently affixed to the wall in the PCARS club station.**

We have 77 PCARS member's ham plates now, **but we can use more**. Don't have ham radio call plates on your vehicle? Well for those of you in Ohio, you can get the plates sent to you by going to any License Bureau office and filling out the special plate registration form. Have a copy of your current FCC license when you apply. The official form to obtain your Ohio Amateur Radio license plates is on the PCARS IO Group site. Then you'll have an old plate to bring in to get hung up as a **permanent part of PCARS history**.



**From the Ohio BMV:**

**General Information:** Owners or lessees of motor vehicles who are residents of Ohio and hold an unrevoked and unexpired official amateur radio station license issued by the Federal Communications Commission may apply for these plates. The official call letters will be the license plate numbers.

**Registrant Eligibility:** Owner must submit a copy of the un-revoked and unexpired official amateur radio license issued by the Federal Communications Commission. (FCC).

**Title Requirements:** Ohio Certificate of Title issued in the same name as the FCC license, either singly or jointly, or the name on the FCC license is the same name on the lease agreement.

**Vehicle Information:** These plates may be issued to passenger vehicles, non-commercial trucks, recreational vehicles, house vehicles and non-commercial trailers.

**Type of Plates:** Plates will be manufactured with the FCC license.

**Issuance Information:** Amateur Radio plates cannot be issued with system assigned, reserved, or personalized plate formats.

Renewal of plates can be done at your local Deputy Registrar or by mail using their renewal notice. **Amateur Radio License Holders must provide a copy of their current unexpired and unrevoked official amateur radio license issued by the Federal Communications Commission (FCC) at the time of any type renewal transaction.**

All plates will be mailed directly to the address on your registration card unless customer requests otherwise. The deputy will issue your registration card, stickers and provide you with a permit which will allow you to operate your vehicle while your plates are being manufactured. Special license plate applications are available at all Deputy Registrar license agency locations. These plates cost an additional \$10.00 annually plus the normal registration fees. The fee is determined by Ohio Revised Code section 4503.14.

## PCARS is on YouTube

That's right - PCARS is on YouTube. So, what does that mean? Hey, we have a place to put all kinds of videos that are about PCARS for the world to see.



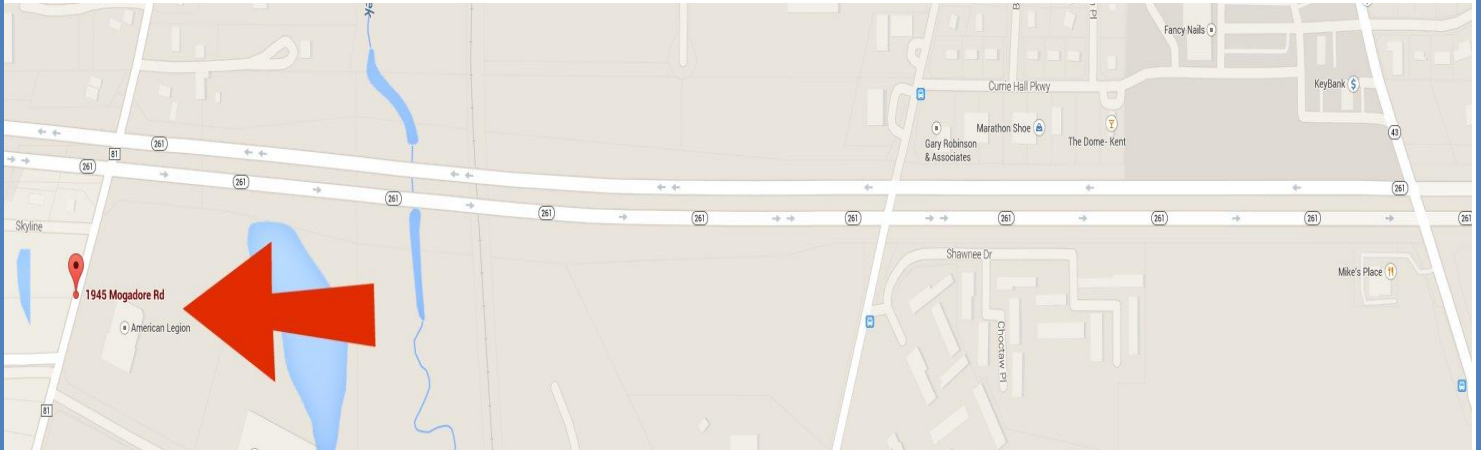
# PCARS Meetings

The Portage County Amateur Radio Service (PCARS) in-person meetings are held the **2<sup>nd</sup> Monday** of each month and start at 7:00 pm.



**CHECK WEBSITE FOR UPDATES ABOUT IN-PERSON MEETINGS**

*The meetings are held at The American Legion, Post 496  
1945 Mogadore Road - in Kent. (Just South of Route 261)*



The American Legion Post 496 is located on the southeast corner of State Route 261 and Mogadore Rd. The driveway is on the south side of the building and as you enter you will pass through a parking lot on the south side of the building. Please do not park in this lot but instead continue on to the parking lot on the east side of the building which is the near the rear entrance into the Post 'Canteen'. As you enter the post from this entrance you'll see a bar to the left and a dining area to the right. The meeting area we'll be in is on the right, to the rear of the dining area.



*The picture on the left shows  
The American Legion Post 496  
as viewed from Mogadore Road.  
(looking East)*

The menu consists of your basic burger / dog / chicken sandwiches, wings, fries, onion rings, and salads. There is also an appetizer selection as well. Adult beverages are available and costs are in line with what you would expect at most bar-restaurant facilities.

If you are a member of the The American Legion, The American Legion Auxiliary, or the Sons of The American Legion, bring your ID card as you get a substantial discount on adult beverage pricing.



# PCARS VE Testing Information & News

**Tom, KB8UUZ**  
PCARS VE Team Liaison



**We will have a VE Test Session April 1<sup>st</sup> at the club site starting at 10 am.**

## **Future Dates:**

**June 3<sup>rd</sup>, August 5<sup>th</sup>, October 7<sup>th</sup>, December 2<sup>nd</sup>**

**\*\*\* Check the website for the latest information \*\*\***

If you have any questions, don't hesitate to contact me at [KB8UUZ@gmail.com](mailto:KB8UUZ@gmail.com). On behalf of the VE team at PCARS, we all look forward to seeing you at the PCARS club site in Ravenna so you can take your license test. Face masks are not State/County mandated at this time, but you are always welcome to wear one.

PCARS VE sessions are scheduled for **10:00 am** on the first Saturday of every even numbered month at the PCARS club site in Ravenna.

## **QUICK FACTS**

- **Yes**, PCARS VE test Sessions are held at the club site in Ravenna starting at 10 am - see schedule.
- **Walk-Ins are accepted.** Would appreciate an email to [KB8UUZ@GMAIL.COM](mailto:KB8UUZ@GMAIL.COM) if you plan on attending.
- You **MUST** have an **FRN Number** (SSNs no longer accepted)
- You **MUST** have a **valid e-mail address** for the FCC to be able to contact you.
- **Picture ID required**
- **Original and Copy of your valid FCC license** and originals of any applicable CSCE
- **Taking Technician Test?** - You **MUST** apply for your FRN and get it prior to testing.
- **VE fee is \$15** - Cash or Check payable to "ARRL-VEC"
- **17 years old or younger?** VE Fee is \$5 per the ARRL reduced CE fee Youth Program
- **FCC License Fee \$35** - payable after FCC send you a link. **DOES NOT APPLY** to upgrades.
- **17 years old or younger?** ARRL will reimburse you the \$35 FCC Fee.

## **Okay - now all the Details:**

- **You must have your FRN prior to taking an exam** - No SSNs will be used on the Form 605 anymore.
- If you are sick, have a cough, a high temperature or have been exposed to COVID-19 or someone that has been infected - please, *do not* come to the club site. *Use of masks is optional.*
- No food or snacks allowed.
- \$15.00 Fee Payment will only be by check or exact change. We cannot make change
- If paying by check, make check out to: "ARRL-VEC" The VE Fee is \$15.00 (see below)
- Ensure you have the following:
  - A picture ID such as a valid Driver's License, State ID, School ID, or US Passport.
  - If you are under 16 years of age, a parent or guardian must be able to vouch for you and you need a copy of your birth certificate (you do not have to give us a copy, we just have to see and verify).
  - **FCC is requiring you have your e-mail address on the Form 605.**
  - **If you are taking a Technician test you must have your FRN number** (you can apply for an FRN on the FCC website). For hams having a license, your FRN is printed on your license.
  - **If you are upgrading to General or Extra - You MUST bring your original valid amateur radio license and a copy of your valid amateur radio license to turn in with your Form 605.**
  - Bring your own pencils and pens.
  - Calculators are okay to use (if you need one) as long as the memories are cleared.
  - NO cell Phones allowed



Any questions? Contact [KB8UUZ@gmail.com](mailto:KB8UUZ@gmail.com)

## Additional Information - What to Bring to the Testing Session

- If you've already passed a test: The original (and one copy) of any document that you will use to prove you've already passed a test element.

These documents may include:

- An unexpired Certificate of Successful Completion of Exam (CSCE) indicating the credit(s) earned.
- Original and copy of a pre-March 21, 1987 Technician license (this provides credit for the Element 3 [General] exam) - you **must** be currently licensed to get this credit.

Expired License? Original and a copy of your expired Amateur Radio License - you must take and pass Element number 2 to re-instate your license.

## **ARE YOU GOING FOR YOUR TECHNICIAN LICENSE? READ THIS IMPORTANT INFORMATION**

### **First-Time Exam Applicants MUST Obtain FCC Registration Number BEFORE Taking Exam**

As of **May 20, 2021**, all amateur examination applicants are **required** to provide an FCC Registration Number (FRN) to the Volunteer Examiners (VEs) **BEFORE** taking an amateur exam. This is necessary due to changes the FCC has made to its licensing system. Applicants will create an FCC username and account, respond to the verification email from FCC, and then register for the FRN. Register on the FCC's Commission Registration System (CORES): <https://apps.fcc.gov/core/>

### **Email Addresses REQUIRED**

As of **June 29, 2021** all applications will be required to contain an email address for FCC correspondence. Applicants will receive an email direct from the FCC with a link to the official electronic copy of their license whenever a license is issued or changed. ARRL VEC suggests that those without access to email to use the email address of a family member or friend. Licensees will be able to log in to the ULS using their FRN and password to download the latest version of their license at any time. The FCC no longer provides paper license documents.



### **New FCC \$35 Amateur Application Fee**

**March 23, 2022** - The FCC released a [Public Notice](#) stating that the amateur radio application fees, including those associated with Form 605 application filings, would become **effective on April 19, 2022**. The Federal Communications Commission's authority to impose and collect fees is mandated by Congress. **April 4, 2022** - The Federal Communications Commission (FCC) staff has clarified in response to an ARRL request that the new \$35 application fee will **not apply** to most license modifications, including those to **upgrade an amateur radio licensee's operator class and changes to club station trustees**. The FCC staff explained that the new fees will apply only to applications for a new license, renewal, rule waiver, or a new vanity call sign. As previously announced, the new fees took effect on April 19, 2022.

**VECs and Volunteer Examiner (VE) teams will not have to collect the \$35 fee at exam sessions.** New applicants will pay the \$15 exam session fee to the ARRL VE team as usual and pay the \$35 application fee directly to the FCC by using the CORES FRN Registration system.

When the FCC receives the examination information from the VEC, it will email a link with payment instructions to each successful candidate. The candidate will have **10 calendar days**, from the date of the application file number being issued, to pay. After the fee is paid, and the FCC has processed an application, examinees will receive a second email from the FCC with a link to their official license. The link will be good for 30 days.

Additionally, the FCC stated that applications processed and dismissed will not be entitled to a refund. This includes vanity requests where the applicant does not receive the requested call sign. However, returned applications that are missing information will not require an additional fee, if the missing information is given to the FCC within the proper amount of time.

### **Youth Licensing Grant Program**

The ARRL Youth Licensing Grant Program, in effect since April 19, 2022, will cover the one-time \$35 application fee for new amateur radio license candidates **younger than 18 years old** for tests administered under the ARRL Volunteer Examiner Coordinator (VEC) program. "We are thrilled that we are able to provide this opportunity to our youth candidates," said ARRL VEC Manager Maria Somma, AB1FM.

The \$35 Federal Communications Commission (FCC) application fee will be reimbursed after the ARRL VEC receives the completed reimbursement form and after the new license has been issued. The reimbursement check will be mailed to the fee payer. Also, candidates younger than 18 years old would pay a reduced exam session fee of \$5 to the ARRL VEC team at the time of the exam. The \$5 fee is for all candidates under the age of 18, regardless of the exam level taken. Proof of under 18 status is required at the session.



The ARRL Board approved the Youth Licensing Grant Program at its July 2021 meeting in Hartford, Connecticut, expanding on the scope of the original motion proposed by ARRL Southeastern Division Director Mickey Baker, N4MB.

The Board believes the recruitment and training of young amateur radio operators is a necessary and proper mission of the ARRL and subsidization of the \$35 fee will reduce the number of new amateurs that would otherwise be lost from these groups. Initially the new program would serve up to 1,000 new license applicants under 18 years old. The program length is indefinite; it may be renewed or terminated by the Administration and Finance Committee or by the Board of Directors.

Visit the ARRL website for the program instructions and reimbursement form at [www.arrl.org/youth-licensing-grant-program](http://www.arrl.org/youth-licensing-grant-program).

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**ARRL VEC Application Fees webpage:** <http://www.arrl.org/fcc-application-fee>

**ARRL News Story:** <http://www.arrl.org/news/new-amateur-radio-license-applications-fee-to-become-effective-april-19-2022>

**FCC Registration:** <https://apps.fcc.gov/cores/userLogin.do>

The Federal Communications Commission (FCC) retired the [Legacy version](#) of its **CO**mmission **RE**gistration **S**ystem (**CORES**) on July 15, 2022. CORES is the FCC's public-facing database that enables and tracks certain types of FCC and FCC applicant actions, including amateur radio applications and licenses. Its implementation has enabled routine amateur applications and licenses to be issued overnight instead of over weeks, as was the case with earlier methods. The [updated version of CORES](#) is now available. ( <https://apps.fcc.gov/cores/userLogin.do> )

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**July 2022 - From: Maria Somma, AB1FM - VEC Manager - ARRL**

### **INFORMATION ABOUT THE FCC APPLICATION FEE AND VEC FILED APPLICATIONS**

The FCC application fee was implemented on April 19, 2022. Here's what we know so far...

#### **1. MAKE SURE EXAMINEES UNDERSTAND THEY MUST PAY WITHIN 10 DAYS.**

Examinees do NOT have to wait for the email from the FCC to pay the fee. As soon as an the application file number is issued by the FCC, they can pay by logging into the CORES Payer FRN System (easier to use but only temporarily available) or the CORES FRN Registration system (CORES - Login).

Application File Number search using an FRN: FCC Application File Number Search

CORES payment system background information and instructions: Information.

CORES step-by-step payment instructions: FCC Application Fee Instructions

#### **2. The FCC help center stated there is a known issue with individuals paying the \$35 application fee via a smart phone or tablet.** This is not a new issue and they haven't been able to help troubleshoot the issue at the support center. Encourage candidates to login and pay the FCC application fee from a computer.

#### **3. Examinees should NOT amend any applications that a VEC submits on their behalf, especially NEW license applications.** Amending VEC filed applications will cause the application to be dismissed without action in the FCC system and potentially require the applicant to pay another \$35 fee. If there is a minor mistake on the application, either call us and we can correct and resubmit the application, or the individual can pay the fee, be issued the call sign, and then log back in and make corrections.

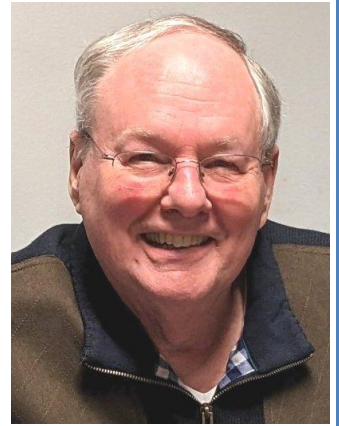
#### **4. Individuals should review their application BEFORE paying the fee.** If there is a major error on the application, such as the licensee's name or license class earned is incorrect, or the answer to the felony question is wrong, DO NOT PAY the fee. Call the VEC (ARRL) immediately.

#### **5. When in doubt, call the VEC! (ARRL)** Even if you think you shouldn't bother us with your question, call us anyway.



## Tips for Taking Your Ham Radio License Test

**Jim, AC8NT**



Over my years of teaching, I have found the following hints to help people pass their licensing tests. Pass them on to anyone studying for their license.

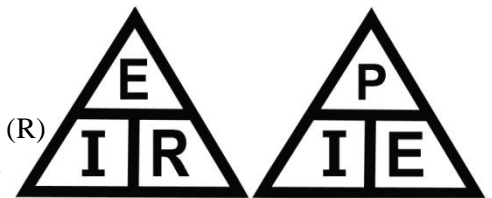
1. Remember you just need to pass the test. Your score above passing doesn't matter.
2. Answer the questions in order, don't skip around. Skipping around often results in you not answering a question or marking the wrong circle on the test.
3. Read the question carefully and come up with an answer before looking at the possible answers.
4. Answer all the questions, even if you need to guess. There is a one in four chance you will guess correctly, but if you don't answer 100% of the time it will be wrong.
5. Don't assume the answers follow a pattern. They most often don't.
6. Remember not to second guess yourself. Over thinking and changing your first answer doesn't often work on these tests.
7. If you have studied, you will seldom need a calculator.
8. If you are asked what the equivalent value is of resistors in parallel, capacitors in series or inductors in parallel, the answer can't be greater than the smallest component. The equivalent resistance of a 300 ohm resistor in parallel with a 10,000 ohm resistor can't be greater than or equal to 300 ohms. This usually eliminates half of the choices.
9. Statistically, if asked a question on a regulation, the longest answer is usually the correct one. *Blame it on lawyers.*
10. Rather than memorize all the controls on a radio, playing with one is the best way to remember how it works. Thirty minutes of operation can eliminate hours of memorization and greatly improve your chances of answering a question on operation correctly.
11. If you fear the math questions, just guess at the answer. You can miss all the math questions and still pass the test.

Two easy to remember diagrams that may help:

The first one is used to figure out Voltage (E) or Current (I) or Resistance (R)

Using the diagram you just plug in the two items known and you can then figure out the third item really easy.  $E = I \times R$   $I = E/R$   $R = E/I$

The second one is for figuring out Power (P) and it works the same as the other one.

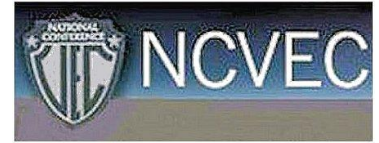


12. Arrive early to the test; sit and chat; unwind; and remember failing the test just results in coming back again. It is not the end of the world if you fail.





## General Class Test Pool Changes July 1st



### New General Question Pool Released for Ham Radio Licensing Effective July 1, 2023

The National Conference of Volunteer Examiner Coordinators' (NCVEC) Question Pool Committee (QPC) has released the [2023 - 2027 General Class FCC Element 3 Syllabus and Question Pool](#) to the public. The new General Question Pool is effective July 1, 2023, through June 30, 2027.

The new pool incorporates some significant changes compared to the 2019 - 2023 version. Its 432 questions were modified slightly to improve wording and to replace distractors; 51 new questions were generated, and 73 questions were eliminated. This resulted in a reduction of 22 questions, bringing the total number of questions in the pool down from 454. The level of difficulty of questions is more balanced, and the techniques and practices addressed have been updated.

The [pool](#) is available as a Microsoft Word document and PDF. The single graphic required for the new General Question Pool is available within the documents, or separately as PDF and JPG file formats.



"The newly revised pool must be used for General-class license exams starting July 1, 2023," said ARRL VEC Manager Maria Somma, AB1FM, who is a member of the NCVEC Question Pool Committee. "New test designs will be available to [ARRL Volunteer Examiners](#) on that date. The ARRL VEC will supply its officially appointed, field-stocked VE teams with new General exam booklet designs around mid-June."

General class examination candidates preparing for their exams using the 9th edition of [The General Class License Manual](#), and/or the 6th edition of [ARRL's General Q & A](#) are encouraged to test by, or before, June 30, 2023. New editions of ARRL licensing publications will be available in May, for exams taken on, or after, July 1, 2023.

## Georgia State Parks On The Air - April 1-2

### Georgia State Parks On the Air

The [Georgia State Parks On the Air](#) will be held **April 1 - 2, 2023**. ARRL member Claude Ray, AC4SH, said this is the first time that all of Georgia's 50 state parks have been involved.



"The objective is to encourage ham radio operators to visit Georgia State Parks and experience the fun of Parks on the Air activations," said Ray. "This is a fun contest only, and the rules are minimal, the scoring is simple, and the main award is simply the fun of getting on the air."

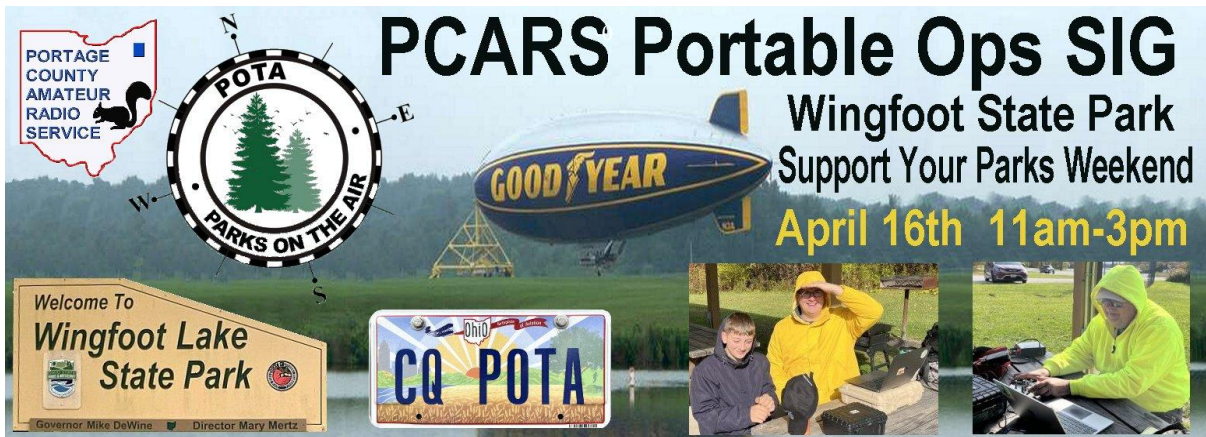
The entire process is largely based on the honor system, although logs of top activators will be cross-checked. The contest period begins at 0800 EDT, April 1, 2023, through 2000 EDT, April 2, 2023, and operating hours are subject to park rules and times.

Participants with the top three scores in each of the five categories will receive a certificate indicating the award:

- Georgia Activator - Individual
- Georgia Activator - Club
- In-Georgia Hunter (individual or club)
- Out of State Hunter (individual or club)
- Georgia ARES® Club

Every station participating in the event and submitting a log will, upon request, receive a Certificate of Participation indicating the number of parks contacted. Ray added, "There are 47 parks that already have at least one ham planning to activate on the April 1 - 2, 2023, weekend." See the complete rules at [gaparks.org/rules](http://gaparks.org/rules).





## ***PCARS Portable Operations Special Interest Group Special POTA Support Your Parks Weekend Activation***

**WINGFOOT LAKE OHIO STATE PARK K-3516**



**Date: Sunday - April 16<sup>th</sup>**  
**Time: 11 AM - 3 PM**

In the "**Buckeye Shelter**"

Attendees are asked to bring covered dish, or snacks or anything good to share.



Brandon KE8ARB and John WG8X are the coordinators for this club event. For more info - contact:

**John, WG8X - [john@wg8x.net](mailto:john@wg8x.net)**

There will be plenty of room to set up rigs, and antennas. Folks are encouraged to come and operate using the club call - K8BF, or their own callsign.



# **Wingfoot Lake State Park**

993 Goodyear Park Blvd,  
Suffield, OH 44260



# TUSCO AMATEUR RADIO CLUB'S 2023 HAMFEST, COMPUTER & ELECTRONICS SHOW

**Saturday April 22, 2023**  
**Tuscarawas County Fairgrounds**

**259 S. Tuscarawas Ave, Dover, OH 44622 \*Enter through Tusc. Ave. gate\***

**Talk/Check In: W8ZX on 146.730 PL: 71.9 (Disabled during Hamfest)**

**Main Door Prize: Yaesu FT-891 All Mode HF + 50MHz Transceiver**

**Includes RT Systems ADMS-891-USB Programming Kit**



**Admission: \$5.00 Donation at the door**

**Presale: One admission ticket @ \$5 + extra prize tickets as you wish @ \$4 for one, \$6 for two, or \$10 for three, or multiples thereof. Any request received after April 1, 2023 will be held for pick up at the door. Winners MUST be present for door prizes; main prize can be sent.**

**Tables: \$10.00 Plus Admission**

**Open: 6:00 am for set-up, 8:00 am to 1:00 pm for public**  
***FREE close parking available***



## ***DEALERS WELCOME!***

***Door Prizes***

**\*\*120 Volt power available (Please bring your own extension cords)\*\***

***A SELF ADDRESSED, STAMPED ENVELOPE MUST BE RECEIVED BY APRIL 1, 2023 TO ENSURE THE RETURN OF A RESERVATION CONFIRMATION. RESERVATIONS MUST BE PAID IN ADVANCE!***

Check out our web page! [www.w8zx.net](http://www.w8zx.net)

Find our group on Facebook!

***For additional information and / or to reserve tables please contact:***

**Rick Dingman KE8URA 330-934-0575 or Cindy Gray KE8JNN 330-340-4946**

**Or Email: [w8zx@n8bag.net](mailto:w8zx@n8bag.net)**

**Mailing address for presale reservations: Rick Dingman KE8URA 303 N. 5<sup>th</sup> St. Dennison, OH 44621**

## Thanks & 73



**Parky, KB8UUZ**  
PCARS Newsletter Editor



I really appreciate the help in gathering material to keep this newsletter number one. Without your help we would not have received the newsletter awards in past years. All of our members (and others) look forward to getting this newsletter every month, so keep sending those inputs! I'm sure you know PCARS is known as the **BIG FUN** amateur radio club. So chip-in and send your article in to keep this newsletter great during 2023 and beyond.

Thanks go out to the contributors for this month's newsletter:

**AC8QG, AC8NT, KB8UUZ, N8SY, KD8SCL, W8PT, KE8ARB, K3LR, AJ8B, N8WCP, K8CAV, N8QE, WG8X, KD8WCK, WB2MGP, W8NET, KA8TOA, K6KJN, AC4SH, The ARRL, and the World-Wide Web**

With *your* continued help – we can keep making this a *great* newsletter.

-----

### Need Some Help

How would you like the opportunity to be the next Editor of **The RADIOGRAM**? Let's face it folks, I'm not getting any younger and I would hate to kick the bucket and just leave PCARS hanging for a newsletter editor. I also want a bit more time to play radio.

So here is your chance (if you are not as old as I am) to jump in and have the fun of editing and publishing the monthly PCARS newsletter that all of our members and other hams around the world enjoy seeing monthly.

I've been doing the newsletter since PCARS started it in 2006 (seems like yesterday) - it is about time to let someone else take the reins and be the new Editor. It does take a bit of time every month, but it is fun doing it. You will be right in the thick of things in amateur radio news from all kinds of sources, from local PCARS to Portage County to Ohio to Great Lakes Division to ARRL and beyond.

Nothing special or complicated is used when making the newsletter. I just use Microsoft Word, a paint/picture editing program and a few other programs that are easy and free. Plus, I use the internet to gather up articles every month to bring interesting material to PCARS members.

So, if you are interested, I would be more than happy to show you how I do it and get you going. You too, can be an award winning club newsletter editor! Interested? Email me at [KB8UUZ@gmail.com](mailto:KB8UUZ@gmail.com)

**I thought  
growing old  
would take  
longer.**





# The Portage County Amateur Radio Service, Inc. (PCARS) - Ohio

~ The Hamvention® 2018 "Club of the Year" ~

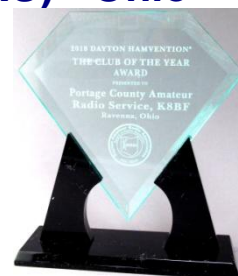


PCARS meets the second Monday of each month at the **Kent American Legion Post 496**,  
1945 Mogadore Rd. - just South of Rt. 261 - Enter the rear of the building for the meeting room.

**Meeting starts at 7:00 pm - All are welcome to attend ~ Stop in and say hello!**

PCARS uses the **K8IV** repeater: **146.895 MHz PL 118.8** in Sugar Bush Knolls ~ EchoLink Node: **K8BF-L**

Check PCARS out on the web: [www.PORTCARS.ORG](http://www.PORTCARS.ORG) -or- [www.K8BF.ORG](http://www.K8BF.ORG)



~ 2023 Officers ~		2023 PCARS Appointments & Committees	
President - Nick Wagner - AC8QG Vice President - Jim Wilson - AC8NT Treasurer - Greg Ash - KA8TOA 1 Year Trustee - Tom Parkinson - KB8UUZ 2 Year Trustee - Chuck Patellis - W8PT 3 Year Trustee - Mike Ryan - KB8TUY Past President - Tom Sly - WB8LCD	ARRL Awards - DXCC	W8KNO	Joe Wehner
	Club Site Manager/Liaison	K8CAV	Rick Kruis
	Contest Coordinator	W8PT	Chuck Patellis
	EchoLink		
	Field Day Chairman, 2022	WA8AR	Tony Romito
	FYAO Chairman	W8PT	Chuck Patellis
	Historian	KB8SZI	Peggy Parkinson
	K8BF Callsign Trustee	N8AMY	Amy Leggiero
	K8BF QSL Manager	N8AMY	Amy Leggiero
	Membership Chairman		
~ Meetings & Net ~  2nd Monday of each month. 7pm Thursday night Club Net at 8 pm on 146.895	Net Control Coordinator	KA8TOA	Greg Ash
	Newsletter Editor	KB8UUZ	Tom Parkinson
	OSPOTA Chairman	KB8UUZ	Tom Parkinson
	PCARS Photographer	KE8LWO	Bernadette Wagner
	Public Information Officer		
	Secretary	KE8EGF	Paul Hyland
	Social Media		
	Tech, Gen & Extra Class Mgr.	AC8NT	Jim Wilson
	Volunteer Examiner Liaison	KB8UUZ	Tom Parkinson
	Webmaster	WG8X	John Myers



**PCARS  
Volunteer  
Examiner  
Team  
Members**

KB8UUZ	Tom Parkinson
AC8NT	Jim Wilson
AC8QG	Nick Wagner
N8QE	Bob Hajdak
KA8TOA	Greg Ash
WA8CCU	Al Nagy
N8FUM	Dan Torchia
W8EC	Mark Haas
K8IG	Fred Freer
N8XTH	Deron Boring
K8IV	Ed Polack
W8PT	Chuck Patellis
KC8JC	James "JC" Wilson
N8AMY	Amy Leggiero



## THE RADIOGRAM

**PCARS Incorporated**  
Nov. 1, 2005

**First Meeting**  
Nov. 14, 2005



**ARRL Affiliation**  
April 20, 2006



**Special Service Club**  
March 22, 2010

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Articles are the opinion of the authors and not necessarily those of PCARS. Or, better yet, let me express it this way: "These are my opinions and only my opinions, unless you share them as well, which would make them our opinions, but I am not of the opinion that I can express your opinion as my opinion without your prior expression of said opinion, and then my re-utterance of that opinion would, in my opinion, be foolish unless I were expressing agreement to your opinion, and then it wouldn't be my opinion but your opinion to which I only agree." **GO AHEAD - STEAL THIS NEWSLETTER!** You have our permission to post, e-mail, copy, print, or reproduce this newsletter as many times as you like, but please do not modify what you use. If you use material in this newsletter, all we ask is that you give credit to PCARS along with the author of the article. Caution - some of the articles in this newsletter maybe covered by copyright - please do not copy and use the ones that have by-line information unless you obtain permission from the original author. If you're not sure, drop an e-mail to [KB8UUZ@gmail.com](mailto:KB8UUZ@gmail.com). The RADIOGRAM always obtains written permission for reproducing copyright material. The RADIOGRAM comes out the first day of each month (usually), please have inputs submitted by 8 pm ET on the last Friday of each month. ARES® (Amateur Radio Emergency Service®) is a program of, and both logos are registered trademarks (used with permission) of the American Radio Relay League, Inc. ARRL, the National Association for Amateur Radio™. **Why the Black Squirrel in our logo?** For those of you not familiar with it: The Black Squirrel is commonly seen around Portage County, Ohio. Seems that some of these little guys and gals got loose from Kent State University back in 1961. They have migrated and thrived throughout our county. Kent State University even has an annual Black Squirrel Festival. **So when you spot a black squirrel - think PCARS!**

The RADIOGRAM is published every month and only sent to subscribers. If you would prefer not to receive this newsletter, we understand. We'll try not to take it personally. It's not you saying you don't like us, but maybe you just don't have the time to look at all this hard work we've done just for you. Hey, that's cool. But if your heart is truly set on making sure you no longer receive this newsletter, even though we promise to one day reveal the meaning of life in it and you're going to be really upset when you miss out on that, we can take you off the e-mail list. Send your newsletter inputs (in .TXT format) along with in-focus pictures (not small 50 kb photos) to the newsletter editor: [KB8UUZ@gmail.com](mailto:KB8UUZ@gmail.com)

By attending PCARS in-person activities, you are acknowledging that an inherent risk of exposure to COVID-19 exists in any public place where people are present. By attending PCARS in-person activities, you voluntarily assume all risks related to exposure to COVID-19 and covenant not to sue and agree not to hold the Portage County Amateur Radio Service (PCARS) or any of their directors, officers, contractors, vendors or volunteers liable for any illness or injury. While PCARS implements preventative measures to reduce the spread of COVID-19 in accordance with Federal, State and Local guidelines, we cannot guarantee that attendees will not become infected with COVID-19 as a result of attendance.

**Portage County Amateur Radio Service (PCARS)**  
705 Oakwood Street - Box 12  
Ravenna, OH 44266 USA



NLC

