



**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  
August 2023 - Volume 18 Number 8

# ***Field Day Results Submitted***



## ***K8BF 4A OHIO***



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



Feature Articles	
From the PCARS President	3
From the PCARS Vice President	4
From the ARRL GL Division Director	6
From the ARRL GL Division Vice Director	7
From the ARRL Ohio Section Manager	8
Tech Tips - Three Projects to Look At	9
On the Road with WG8X	10
Thanks Goes Out to the Antenna Work Party	12
Headwaters Adventure Race	12
Mantua Potato Stomp Volunteers Needed	13
From the ARRL	14
Message from ARRL President Rick Roderick	16
PLEASE-PLEASE Encourage New Operators	17
Field Day 23 - From the Chairman	18
Field Day 23 - All the good Information and More	19
Field Day 23 - Photos	26
Solar Eclipse QSO Party	34
Extending a Ground-Plane Antenna	35
What's Wrong with my ATAS-120A?	38
Solar Panel for Portable Operations	47
From the CQ Magazine Blog	48
Net Night at the Club Site - July 27 <sup>th</sup>	49

Mark Your Calendar	
Schedule of Events	5
Hamfest Calendar	13
Flex Net	39
Net Info & NCS Schedule	40
Meetings, PCARS	53
VE Test Information & News	54
Columbus Hamfest - August 5 <sup>th</sup> - Flier	57
14 <sup>th</sup> Annual PCARS Cruise-In August 10 <sup>th</sup> - Flier	58
Warren Tailgate Swap Meet - August 20 <sup>th</sup> - Flier	59
BBQSO Party/Open House - August 26 <sup>th</sup> - Flier	60
Findlay Hamfest - September 10 <sup>th</sup> - Flier	61

Regular Departments	
PCARS IO Group	5
Coffee Cup - Limited Edition	5
Happy Birthday PCARS Members	9
Swap-N-Shop	37
PCARS Patches & Stickers PCARS	39
SIG - DX & Contesting	41
SIG - Antennas	42
SIG - Digital	42
SIG - Portable Operations	43
SIG - Could Be Anything	43
Charlie the Tuner's HF High-Lites	44
Photos from the last PCARS Meeting	50
Member Ham License Plates Wanted	52
PCARS on YouTube	52

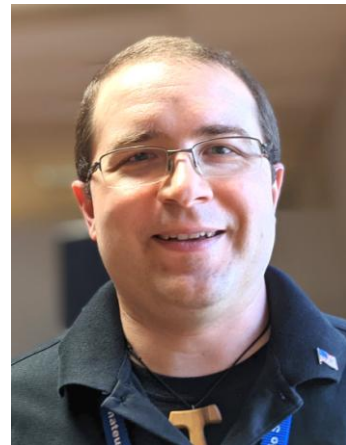
Finals	
Thanks & 73	62
Fine Print	63



## From the President



**Nick, AC8QG**  
PCARS President



### Upcoming Activities

August is the beginning of a busy time for PCARS! I hope you're planning to be a part of all the "Big Fun"!

Our Annual Cruise-In at the A&W is fast approaching on Thursday, August 10th. It's always a lot of fun and a good excuse to eat some "All American Food". Check out the information in this newsletter or go to the website ([www.portcars.org](http://www.portcars.org)) to find out more.

One of our biggest events is our Open House and BB-QSO Party on Saturday, August 26th! It's a great time to hang out, enjoy some food, and get on the radio at the PCARS World Headquarters in Ravenna. Don't miss out on the fun!

### Summer Isn't Over

The spring blossoms are gone, but the green leaves haven't started changing colors yet. That means there's still plenty of time to finish up those projects you intended to finish back in May. There's also plenty of good weather available for portable operation, park activations, or whatever outdoor activities you prefer.

For the Wagner family, we've had a very busy spring and summer so far. Most of our portable ops have involved an HT while on bike rides or walks through the neighborhood. There's still time for us to play radio in the great outdoors, so stay tuned!

### PCARS Leadership

The Pareto principle, also known as the 80/20 rule, states that for many outcomes, roughly 80% of consequences come from 20% of causes. In the case of PCARS, sometimes that distribution looks more like 90/10. Or maybe 95/5. We have a lot of members, but few who step up and do most of the work necessary to continue as a premier amateur radio club.

I'm very grateful for those dedicated individuals who do take on leadership roles and contribute their time and expertise to make PCARS thrive. You can help us too! You can be part of the 20%!

If you're interested in getting more involved, there are plenty of opportunities available to take on responsibilities within the club. Just reach out to me or any of our current board members to express your interest. We're always looking for enthusiastic members to help us continue, evolve, and improve.

Thank you for your continued support, and I look forward to seeing you at our upcoming events!

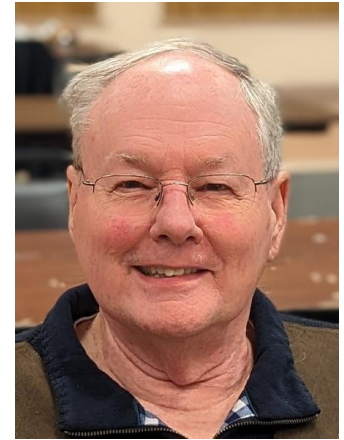




## From the Vice President



**Jim, AC8NT**  
PCARS Vice President



### What is Coming Up?

August is a big month for PCARS. The Cruise-In is scheduled for the 10<sup>th</sup>. We will be meeting at the Ravenna A&W to operate portably and have a root beer float. We have the Ohio BBQSO party on the 26<sup>th</sup>. Good day to operate from the club site and we always have a great cook out. Last, we are operating as W1AW/8 from the 30<sup>th</sup> till September 2<sup>nd</sup>. We plan to operate from the club on Thursday the 31<sup>st</sup> and Saturday, September 2<sup>nd</sup>. August is a full month.

### Foul Weather Planning

Every year in Ohio we have this thing called winter. Now I know we have a few months till then (at least I hope so), but I also know a few hams that put off winter preparations until we have at least a foot of snow. Why start this early? This gives you time to order parts, build replacement equipment, install it, and test it. Then when winter comes, you can stay in the warm and have fun.

In my case, I am working on a base to use for my vertical for Winter Field Day. I really want to give that event a try. Ham radio and the cold. What could be better? HaHa. I don't know if my spike will break the soil in January, so I need a snow compatible tripod. I have done lots of research on the "Intraznet" and am in the building process. Over the next warm months, I will test and get it working. Working WFD is my idea of fun; working outside in the cold building the tripod not so much.

### Next Build

In September we will be holding a build event aimed at getting hams up to speed with the Arduino. This will not be a programming class, just training on how to use the IDE, modify programs and load the program into the Arduino. I have a couple of simple projects that will be used as examples. If you bring your laptop, we will make sure the IDE is loaded and you are ready to go.

Hope to see you at the Cruise-in, BBQSO party and working as W1AW.



# 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**



## Schedule of Events



August 5<sup>th</sup> - VE Testing at the club site in Ravenna - starts at 10 am  
August 7<sup>th</sup> - PCARS Board Meeting at the club site & Zoom - 7 pm  
August 10<sup>th</sup> - 14<sup>th</sup> Annual Cruise-In at the Ravenna A&W - 6-8 pm (see flier)  
August 14<sup>th</sup> - PCARS Meeting at the Kent American Legion - 7 pm  
August 26<sup>th</sup> - Ohio QSO Party & BBQSO Picnic/Open House (see flier)  
August 30<sup>th</sup> to September 2<sup>nd</sup> - Club members will be operating as W1AW/8  
August 31<sup>st</sup> - Operating **at Club Site** as W1AW/8  
September 2<sup>nd</sup> - Operating **at Club Site** as W1AW/8



### Special Interest Groups 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

## 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 - Get One NOW

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.



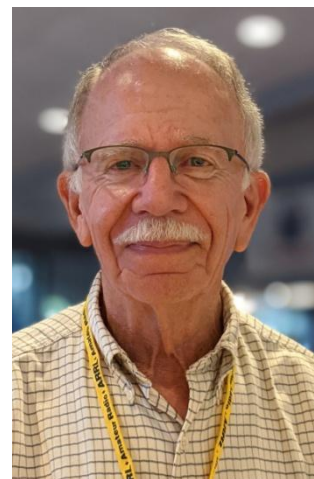
There are a **very limited number of extra coffee cups** for sale at \$5.00 each.

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

## From the Great Lakes Division Director



**Dale, WA8EFK**  
ARRL Great Lakes Division Director



**Greetings, welcome to "Dale's Tales" for  
August 2023**

The Emergency Communications and Field Services Committee, which I chair, is leading the charge for a complete upgrade to the National Traffic System®, radio club activities are getting additional Headquarters support with some new programs under consideration, ARES® improvements continue with new HQ Staff leadership and ARRL received the official invitation and has become a member of the national SAFECOM program.

Your input over these few years has done much to shape the changes in our programs, hopefully bringing them closer to you and your local needs and requirements.

The summer ARRL Board meeting was held July 21 and 22. As we were faced with a personal family emergency, Scott, N8SY filled in for me at the ARRL Board meeting, as called for the ARRL By-laws. We communicated regularly during this time and Scott was well versed on the various agenda items under consideration.

The Board faced the formidable task of the League's financials and how to best handle the increasing costs of doing business - without cutting services to our members. We have had only 2 increases in dues over the past 22 years and with inflation at or exceeding a compounded 3% per year, some difficult decisions had to be considered. We polled the membership, giving everyone the opportunity to consider the options and comment appropriately. The poll response was in excess of 20,000 members. ARRL Members can view the tabulated poll response at: <https://www.arrl.org/dues-survey>.

President Rick Roderick K5UR has some words to say regarding the dues changes as voted by the Board: <http://www.arrl.org/member-bulletin?issue=2023-07-23> and as one member put it, "...I can't understand those who are going to "walk" because of a \$10 increase. That's the price of two PL-259 connectors!..."



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## From the Great Lakes Division Vice Director



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

**Greetings, August 2023**



Whoa... That's how I feel right now. Yes, I got to sit in the front row at this last ARRL Board of Directors meeting filling in for Dale. It was an experience for sure. One that I have to say that I will never forget.

**Shifting Gears...** I know that the dues increase is on everyone's mind right now. Did we really need to do it or could we have held off another year or two. Believe me when I say that every detail about the need for this increase was discussed, and then re-discussed, and then re-re-discussed. I can tell you from my own observations it wasn't an easy decision for any of the Board members to come to. But a decision was made and my heart and mind tells me that it was the right decision. From all the discussions that I was involved in, it was truly the only real option that we have to keep your ARRL strong and vibrant for years to come.

I was in a discussion with my daughter tonight over these rising costs and she told me that my grandson's Boy Scout dues are \$120 per year and they have an additional charge if they want to receive "Boys Life" which is their equivalent to QST. Wow, that made me stop and really think about how little this increase actually is compared to other non-essential activities that we all do... The increase brings us just a freckle under \$5 per month. Yes, I hear you on having a "fixed" income, so are a lot of working folks. Many of which haven't seen a raise in their paychecks since before COVID hit. Trust me, that was a topic that was discussed in great detail... how this would affect YOU. I feel confident that our Great Lakes Division folks will understand the need and do what they can to support this increase.

**Shifting gears again...** QST is now offering a column for clubs called "Club Station." Clubs are the backbone of the amateur radio community. Whether you are a part of a special interest or general club, its members are the community that you serve. In the same way that every ham is different, each club is also different. Not every club will offer the same programs and projects to their member community. The column has a lot of great information about how to run, organize and be a part of a local club. I challenge you to take a good look at this column every month and see if there isn't something in it that you can take to your next club meeting to make it more interesting and inviting to new members.

**Shifting gears again...** Is your ARES® group getting ready for S.E.T.? The Simulated Emergency Test (S.E.T.) is October 7-8 and next to Field Day, one of the busiest times for ham radio! Is your ARES® group or club already in the planning stage yet? If not, it should be, like Field Day, S.E.T. demonstrates to our served agencies what amateur radio is really all about, communications.

**Shifting gears to come into the pits...** Whelp, that's going to do it from here this month. Stay safe and "Catch Me On The Air" at a hamfest or your next club meeting.

Hey, don't forget to participate in your local club's activities!!!! It's important to be a part of your club and ham radio, and not just a reporter.



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## From the ARRL Ohio Section Manager



**Tom, WB8LCD**  
ARRL Ohio Section Manager



### Notes from the ARRL Ohio Section Manager

So I want to talk a bit more about the ARRL this week, and I'll be concentrating on the field organization, most specifically, the Ohio Section. There are a total of 71 Sections in the ARRL, and by number of active Amateur Radio licenses, The Ohio Section is the largest section in the ARRL. (If you just looked at number of licenses on a state-by-state basis, Ohio is number 5. California is number one, but it's divided into 9 ARRL Sections).

The Ohio Section belongs to the Great Lakes Division, which also includes Michigan and Kentucky. (Don't ask, I don't know, it was way before my time) The Ohio Section has quite a bit to brag about: Home to HAMVENTION, one of the largest, if not THE largest Ham Fests in the World! Also home to several of the world's largest and best Amateur Radio Products retailers. At last count over 115 local Amateur Radio clubs and I believe (I haven't looked it up) the largest number of ARRL Special Service Clubs of all the ARRL Sections. I also know from personal experience that there are an extremely large number of really smart, active and engaged hams as you will find anywhere. It's usually the *people* that will make, or break, any great organization, and I know that in the Ohio Section the Hams we have here make the Ohio Section one of the best places to be a Ham in the country! To all of you I say "**Well done and thank you**".

I became the Ohio Section Manager in January of 2021. While I don't plan to make it a career, I do plan to be around a bit longer, presuming I deserve it. But what I do want to say is that stepping into the position has changed my perception of the position drastically. I know now it's a whole lot more involved than I ever thought it to be. It takes a lot of time and it covers a lot of ground. And I know for a fact that that is what happens in all of the other ARRL Sections. The ARRL has a lot of dedicated people in positions in all levels across the country. And it's an all-volunteer organization. I am still motivated by my original goals I've set for myself as an ARRL volunteer:

1. To help and motivate every Ham in the Ohio Section to get the most fun and enjoyment out of the hobby as possible.
2. To make more Hams in the Ohio Section, and
3. Increase the public's awareness of Ham Radio and all that it does.

I'm fortunate to have the Ohio Section Cabinet working with me. They are (in no particular order); Technical Coordinator - Jeff Kopcak K8JTK, Section Emergency Coordinator - Bret Stemen KD8SCL, State Government Liaison - Bob Winston W2THU, Section Traffic Manager - David Maynard WA3EZN, Section Youth Coordinator - Anthony Luscre K8ZT, Public Information Coordinator - Elizabeth Kline KE8FMJ, Affiliated Clubs Coordinator - Amanda Farone KC3GFU. Each of whom are working hard to keep the Ohio Section looking and operating Fantastic!

Also, although he holds another title now Scott Yonally, N8SY is still involved with helping keep the Ohio Section websites going and keeping me up to date with all of the minutia of the ARRL that it'll probably take me a lifetime to discover and remember!

We can add to that by recognizing all of the District and County ARES coordinators and volunteer members, all of the VE's, the individual club presidents and board members.... It takes a lot of good people to keep all of this going, and I'm happy to report that we do have a lot of good people in the Ohio Section who are active and engaged. The Ohio Section is truly a great place to be a ham!

The OHIO SECTION Newsletter Contest is now completed for 2023. The winners will be presented at the Columbus Hamfest on August 5<sup>th</sup> at 10:15 AM. I hope you'll be there to support your club. Just because the contest is now completed for 2023, it's not over. Now is the time to start upping your game for the 2024 contest! We'll be having an OH Section "Clubs" Conference this Fall (more details to follow soon) that will include a session on building your club newsletter. The Conference will be a ZOOM conference so everyone who wants to participate will be able to.



## Happy Birthday PCARS Members

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

KE8ELR	Andrew
WT8J	Julie
W8EC	Mark
N8SKN	Robert
KE8IMR	Karl
W8GU	Mark
KD8OBA	Kenneth
KE8WID	Larry
KC8TUE	Terry
KB8TUY	Mike
K3EMB	Jeff
KB8VJL	AI

N6TL	Randy
KE8NJA	James
KD8ZSH	Randall
WD8ICX	Gary
K8FF	Wayne
N8GPS	Ned
K8IG	Fred
K8ZGW	Don
KA8RXW	Lee
W8RJG	Ron
KD8CGH	Robert



**Happy Birthday**

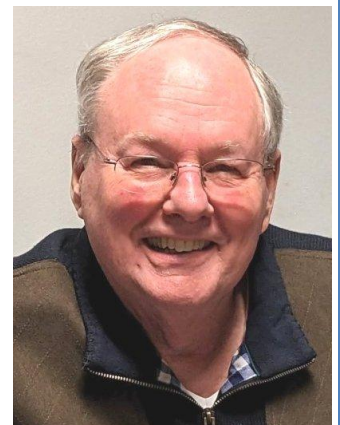
Smile and embrace your age.  
And remember, you're a lot  
younger in dog years!

## Tech Tips - Three Projects to Look At

**Jim, AC8NT**

### This month's topic: Three Projects

Last month promised an article on the design of a fox controller for use with a handheld transceiver for fox hunting. Unfortunately, even though the project is finished, I didn't have the time to complete the figures required for explaining the project. It will be included in next month's column. This month I want to talk about two small projects that I have completed solving two problems on my must fix list.



### Fox Hunt Antenna Attenuator

One of the most used antennas for fox hunting is the tape measure yagi. At a distance its directionality is great, but as you get closer to the fox the signal strength gets strong enough to be easily received from the side of the antenna. An attenuator to reduce overall gain returns directionality to the antenna.

One solution is the mixing attenuator designed and sold by 3<sup>rd</sup> Planet Solar/KC9ON. I have built at least a dozen of his kits. The circuit mixes the output of the antenna with 4 MHz. You set the radio at a frequency 4 MHz from the frequency of the fox. Using a pot you control the magnitude of the 4 MHz signal and therefore, control the amplitude of the mixer output. You have an adjustable attenuator. Although functional the implementation had shortcomings. First connection to the circuit board was a terminal strip. You needed to add connectors. Second, if you keyed up the transmitter you found yourself replacing components on the board. Most users added a bypass switch to allow the antenna to be used for transmitting. Last, you had mount the circuit in some type of enclosure.



Good News! He now offers a kit (version 7) that addresses all these issues. A case that can be easily mounted on 1/2" PVC pipe, bypass switch and connectors. I purchased one of these kits and after a couple of hours, I have a great addition to one of my portable yagi antennas. If you are interested in fox hunting, pick up one of these kits and have a little fun with the build. (~\$27, kc9on.com)

## Nice Very Portable Tuner

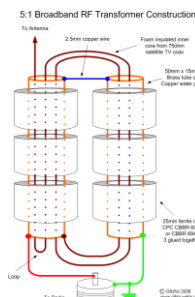
While reading RadCom, July 2023, I found a review of the Kanga QRP Pocket Transmatch. It was an intriguing pocket-sized QRP manual tuner. Like a lot of hams, I use a variety of antennas when working in the field, endfeds, verticals, and dipoles and most of them have required some tuning. I contacted Paul at Kanga-products.co.uk and purchased one of the kits. Yes, it did have a toroid to wind, but it was quick and easy. You get lots of practice winding toroids for QRP-Labs kits. I was able to easily tune my endfed and vertical using the tuner and my IC-705. It also includes an LED SWR indicator that if dim or not lit at all, indicates a usable match. Small, no batteries, SWR indicator and ease of use; what could be better. If you work POTA or other field activities, you will enjoy this project. (~\$58, Kanga-products.co.uk)



## UnUn for Vertical Antenna

My son J.C., KC8JC purchased the Chameleon MPAS antenna, and it has worked great for his POTA activations. I wanted to see what would be required to build a similar antenna and maybe save a little money. One of the key features of the MPAS is the UNUN used to match the vertical to 50 ohms. Building the UNUN was the first step in the project.

I watched videos, read blogs, and visited websites to collect information. Some of the best was on a website created by G8JNJ (g8jnj.net). The result was the construction of a UNUN using ferrites, 1/2" copper pipe and some high temperature wire. The UNUN is a transformer with a one turn primary, the copper tubing and a 2.25 turn secondary. This turns ratio produces an impedance ration of 1:5. Testing over the range of 1.5 to 30 MHz produced excellent results. A tuner is still required to get a good SWR over all bands, but my simple battery operated, and manual tuners work great.



I used an aluminum box to house the UNUN and included four banana jacks to be used for attaching radials. The antenna connection can be 3/8-24 male or female and the spike connection can also be 3/8-24 male or female. A nice flexible package for field work.



The complete cost for the UNUN was about \$40. I use it with an MFJ whip and the spike from my Super Antenna. It is very quick to setup and tear down and works almost everywhere. This was a weekend project, but well worth the effort.

## On The Road with WG8X



*John, WG8X*

## Somewhere On The Road



As my quest to activate all 271 POTA references in Ohio continues, The Summer Support Your Parks Weekend was a perfect opportunity to knock a few more parks off my list. When I say parks, I'm also talking about historical sites, wildlife refuges, wilderness areas, etc. Ohio is such a great state to explore. By the time I finish this quest, I'll have seen every corner of this state.

The weekend began with a Thursday evening trip to Mt. Gilead SP. Situated south of Mansfield, in central Ohio, I feel that this park is a perfect jumping off point for a Trip to Western Ohio. It's a nice small campground, and is very close to the local, grocery stores, and restaurants. This is important to me, because I sometimes wait till evening, and stock my cooler here, and have a quick dinner before turning in for the night. This also gives me one last chance to charge my batteries, and test my gear.



After a good night sleep, I awoke bright and early Friday morning, and drove north towards Lake Erie. My first stop was Little Portage Wildlife area. After dashing off 10 quick contacts to satisfy POTA rules, I moved on to the next stop on my list, then the next, etc. By the time I rolled in to Independence Dam State Park; my destination for the next couple nights, I had knocked eight new parks off of my list. Friday had been a day with more closed roads, and detours than I would have liked, but its summer, so I adapted.



Independence Dam SP is a picturesque park on the banks of the Maumee River, in Defiance County. The Buckeye Trail ([buckeyetrail.org](http://buckeyetrail.org)) passes through the park. The North Country National Scenic trail ([northcountrytrail.org](http://northcountrytrail.org)) shares it's time in Ohio with about 75% of the Buckeye Trail, which makes my stop at Independence Dam SP a **Two-fer\***, which counts as two activations, instead of one.

As happens most days for me, the contacts seem to dry up around lunch time. According to the Reverse Beacon Network, my signal was strong enough, but just a lack of hunters. Things usually begin improving around 3 PM, so it's a good time to find a place to eat lunch, or take a siesta.



Saturday began Around 5 AM, when the wind & rain blew through the area. After showing off for a bit, Mother Nature settled down to a gentle drizzle and I was able to go back to sleep until about 7:30 AM. I finally got dressed, drug myself out of the tent, and wandered in to town. After a long breakfast and a break to update my activation logs from the day before, I resigned myself to that I was facing an all day rain. So, it was on the road to the first stop of the day; Oxbow Lake. Arriving around 9 AM, I did my 10 contacts in record time on 40M CW. From there, it was game on; Support Your Parks Weekend was open for business. The plan was to arrive at a park, make no less than 10 contacts, then move onto the next stop. By Saturday evening, when I returned to Independence Dam SP, 9 more new parks had been added to my log.



Saturday night, I made as many contacts as possible from camp before depleting both my LiFeP04 batteries. That was it for this trip to NW Ohio. On Sunday morning, I rigged the Biennio 12AH battery to charge from my trucks inverter on the drive home. This allowed me to do one more stop, this one at Quail Hollow Park in Hartville, before heading home.

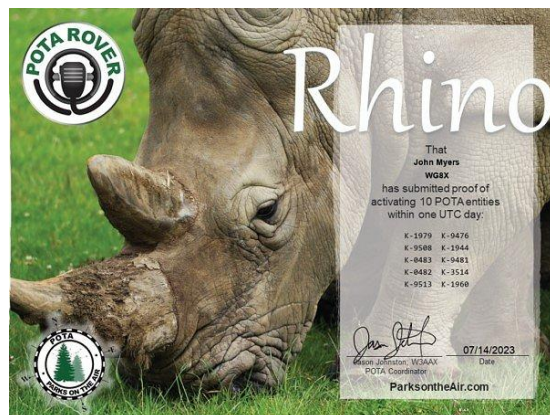
The final tally for this trip was just about 600 miles behind the wheel, and 324 contacts in the log. The mode of choice was mostly CW, but I also did some FT8 and SSB. Including the Two-fers, the final stats for the weekend were 25 activations; 17 of those were new to me.

There are 271 references in Ohio, and I have activated 230 of them. I'm looking forward to putting those final 41 in the log book.

I keep track of my activations using a Excel spreadsheet, and update my map after each trip. The map has links to the next parks on my list, so I can just click & go. The map is available online at [wg8x.net](http://wg8x.net)

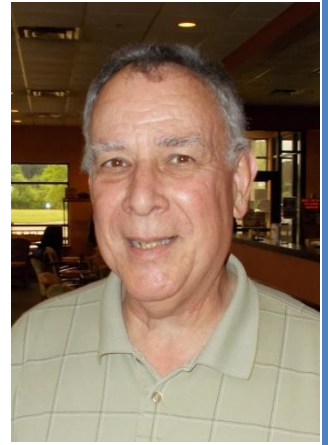
So, when is my next trip? Read on. I'll write more next month. 73 De WG8X

*\*A Two-fer is when two entities share the same real estate. Hunters contacting the two-fer get credit for both parks. Activators get to count this as two activations rather than one.*



## Thanks Goes Out to the Antenna Work Party

**Rick, KD8WCK**



PCARS proves again what a tremendous group of hams we are.

Greg KA8TOA, Mike KB8TUY, Brandon KE8ARB and Mara KE8KBJ worked a solid half day with me July 15<sup>th</sup>, taking down a dysfunctional EFHW, troubleshooting it, fixing it and putting it back up in the air.

When all was said and done, and the pork chops, picnic sides and beverages were consumed and conversation was had, my goal of having a 2D station is met. I now can dedicate a radio and antenna to FSQ mode on 7105 KHz (see [fsqcall.org](http://fsqcall.org)) without having to give up the ability to play radio on the other antenna and other transmitters.

Thanks Mike for showing me how to use my ESR meter, Brandon for exceptional troubleshooting skills, Greg for common sense and keeping us motivated to get done before the rain came in, and Mara for excellent hospitality while i was getting the grille going and gophering tools back and forth to everyone else. And everyone for dragging wire and pulling rope! We didn't think to take pictures... **(Editor's note: No pictures and I bet everyone there had a smart phone.... urgh!!)**

## Headwaters Adventure Race

**Rick, K8CAV**  
Portage County Coms Unit



The Portage County Parks District holds an annual three-event race in July, called the Headwaters Adventure race, consisting of a 2-mile run, a 10-mile bicycle course, and a 5-mile canoe course on the Cuyahoga River. Since the race's inception, amateur radio operators have provided communications support to the Race Director through the Coms Unit of the EMA, and other amateur radio volunteers. This year's event was on Saturday July 8th and was supported by 15 Radio Communicators. Support ranged from staffing key intersections on the course, providing a bicycle sweep, and a canoe sweep on the river, a net control station operator, and a COML/shadow for the Race Director. All radio communicators reported on time to sign in and then moved to their assignments. Radio checks were performed and then a formal net was opened. Radio communicators provided all requested information in a timely manner to NCS. There were no injuries or incidents that needed reporting or first responder response. The event ended when the last canoeist crossed the finish line followed by the two radio communicators in the sweep canoe at 12:31 PM.



It was evident from the start that all radio communicators had experience in providing communications for public service events. Communications were performed in a very professional way, and with net discipline. Two radio communicators new to public service communications were mentored by experienced radio communicators, and will be able to perform independently in future events because of that mentoring.



The Race Director was very appreciative of the radio communicator's time and talents given for this event.

I would like to sincerely thank the following radio communicators for making this year's team a success. Jim KC8YYS, Greg KA8TOA, Rick KD8WCK, Roger KE8TEJ, Ron W8AHC, Sandy KD8JCY, Bob N8KBX, Gene W8NET, Brandon KE8ARB, Ethan KE8WVV, Andrew KE8BWA, Nick N8WLE, Mike KB8TUY, and Mike N8WCP.

## Mantua Potato Stomp Volunteers Needed

**Rick, K8CAV**  
Portage County Coms Unit



The will be holding the 44<sup>th</sup> annual Potato Stomp race on Saturday **September 9<sup>th</sup>**. The race starts and ends at the Mantua Village Park, and almost all of it is run on the Headwaters Trail.



Communications support is provided by amateur radio operators at key points on the course. I am looking for volunteers to help with this event. If you would like to help, please contact me at [k8cav.coms@gmail.com](mailto:k8cav.coms@gmail.com) and I will add you to the list. Thanks!

## 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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**08/05/2023 - Columbus Hamfest** - Location: Aladdin Shriners - 1801 Gateway Circle - Grove City, OH 43123 - Website: <http://www.columbushamfest.com> - Public Contact: Art Wilson, N8ART - 182 Alexander Lawrence Drive Pickerington, OH 43147

Phone: 614-256-5829 - Email: [W8FEZAUDIO@AOL.COM](mailto:W8FEZAUDIO@AOL.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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**09/10/2023 - Findlay Hamfest** - Location: Findlay, OH - Hancock County Fairgrounds - 1017 E. Sandusky St., Findlay, OH 45840 Phone 419-423-3402 - Sponsor: Findlay Radio Club - Website: <http://findlayradioclub.org>

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**09/24/2023 - Cleveland Hamfest** Location: Cuyahoga County Fairgrounds - 19201 E. Bagley Rd. - Berea, OH 44017 Sponsor: Hamfest Association of Cleveland - Public Contact: Doug Dever, AB8M - 8035 West Ridge Dr. Broadview Heights, OH 44147 - Phone: 216-401-5888 - Email: [dougdever@gmail.com](mailto:dougdever@gmail.com) - Website: <http://www.hac.org>







### IARU Administrative Council Met in Germany

The 58th meeting of the IARU Administrative Council (AC) was held in person at the SEEhotel in Friedrichshafen, Germany, on Sunday, June 25, and Monday, June 26, 2023. In matters related to World Radiocommunication Conference 2023 (WRC-23), the AC received reports on the Conference Preparatory Meeting, ITU-R Working Party 5A, and the latest updates regarding agenda items 1.2, 1.12, and the current status of agenda item 9.1b, which is about the radionavigation-satellite service (RNSS) and the 23-centimeter band.

On the subject of strategic planning, preliminary results from the work of the Relationship Working Group, Legal Working Group, and Finance Working Group were approved. Their work will continue to address a planned restructuring of IARU. An initial report will be presented at the Region 1 Conference in Zlatibor, Serbia, in November.

The AC received a report on the completion of the IARU officer consultative process regarding nominating candidates for the offices of President and Vice President for the 2024 - 2029 term. The nominees will be formally submitted to member-societies for ratification later this year.

Reports were received from IARU Beacon Project International Coordinator Peter Jennings, AB6WM/VE3SUN; Electromagnetic Compatibility Coordinator Martin Sach, G8KDF; Satellite Advisor Hans Blondeel Timmerman, PB2T, and Emergency Communications Special Advisor Rod Stafford, W6ROD.

The AC appointed Rick Palm, K1CE, Editor for the ARRL ARES Letter, as the IARU Special Advisor on Emergency Communications to assume the responsibilities of Rod Stafford, W6ROD, in representing IARU in the ITU Telecommunication Development Sector.

Gaspar Miró, EA6AMM, presented a report on the IARU Monitoring System and submitted a proposed revision to the current terms of reference (TOR). The AC will continue to review the proposal to consider a resolution to update the TOR.

A report was received on the successful 2023 World Amateur Radio Day that supported the United Nations initiative to promote Human Security for All (HS4A).

Preliminary thoughts on how to celebrate the 100th anniversary of IARU, founded in Paris in 1925, were exchanged.

Nominations for the IARU Michael J. Owen, VK3KI, Award and the IARU Diamond Award were received.

Members attending the meeting were IARU President Tim Ellam, VE6SH/G4HUA; IARU Vice President Ole Garpestad, LA2RR; IARU Secretary and ARRL Past President Joel Harrison, W5ZN; IARU Region 1 President Sylvain Azarian, F4GKR; IARU Region 2 President George Gorsline, VE3YV, and IARU Region 2 Secretary Rod Stafford, W6ROD; IARU Region 3 Co-Chairmen Ken Yamamoto, JA1CJP, and Yudi Hasbi, YD1PRY, also attended the meeting along with retired ARRL Chief Executive Officer and current IARU Assistant Secretary David Sumner, K1ZZ. IARU Region 1 Secretary Mats Espling, SM6EAN, sent his regrets for being unable to attend.

*Thanks to IARU Secretary Joel Harrison, W5ZN, for this report.*

### Announcements

Full ARRL members in the Atlantic, Dakota, Delta, **Great Lakes**, and Midwest Divisions have the opportunity to choose a Director and a Vice Director to represent them for a 3-year term beginning January 1, 2024. ARRL The National Association for Amateur Radio® is governed by its Board of Directors. A voting Director is chosen by ballot by the full (licensed) ARRL members in each of its 15 Divisions. Vice Directors, who serve in the absence of the Director at a Board meeting and succeed to the position of Director should a vacancy occur, are chosen at the same time. Elections are held in five Divisions per year. It takes only 10 full members in a Division to nominate a candidate for either office. Learn more about the process in the Call for Nominations on the ARRL website.

NASA has announced the earliest targeted launch date of Tuesday, August 15, for their seventh rotational mission of sending a SpaceX Dragon crew spacecraft and Falcon 9 rocket to the International Space Station. The launch of Dragon, named Endurance, will take place from Launch Complex 39A at Kennedy Space Center in Florida and will carry NASA astronaut and mission commander Jasmin Moghbeli, KI5WSL, and European Space Agency astronaut and pilot Andreas Mogensen, KG5GCZ. Japan Aerospace Exploration Agency astronaut Satoshi Furukawa and Roscosmos cosmonaut Konstantin Borisov will also be on-board as mission specialists. This is the first spaceflight for Moghbeli and Borisov, and it is Mogensen and Furukawa's second flight. Following a handover period, crew members from NASA's SpaceX Crew-6 mission are scheduled to return to Earth aboard their SpaceX Dragon spacecraft named Endeavour. For launch coverage and more information about the mission, visit <https://www.nasa.gov/commercialcrew>.

### In Brief...

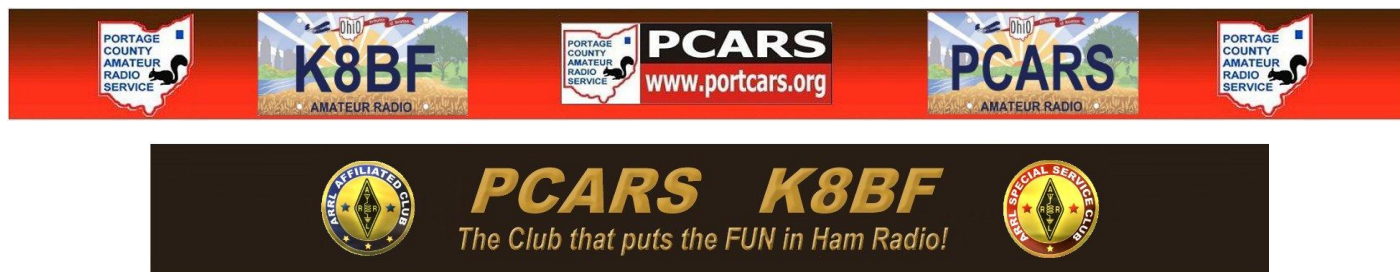
Morse Code is still thriving in amateur radio, 24 years after its last commercial use. On July 12, 1999, the original dot/dash system, invented by Samuel F. B. Morse in 1837, gave way to the rapid development of analog and digital communications. The final message sent in Morse code for commercial use was the same one that Morse hammered out on his telegraph key 155 years earlier in 1844, which was, "*What hath God wrought?*" But this time the message was followed by SK, meaning silent key, or deceased. The International Maritime Organization replaced Morse code with the Global Maritime Distress and Safety System -- an automated ship-to-shore and ship-to-ship system that use satellites and/or terrestrial radio systems with digital selective calling technology. Morse Code is also still used in aviation. Pilots listen to a Morse code identifier to verify that their navigation receivers are tuned to the correct radio aid, such as a VHF Omni-Directional Range (VOR) or Instrument Landing System (ILS) approach guidance system. Railroads stopped using Morse code in the mid-1970s. While Morse code is no longer used commercially, it is still an integral part of amateur radio. Amateur radio operators are no longer required to learn Morse code to obtain their license, but many learn the code on their own or by using study guides and taking classes. Every day, amateurs around the world use Morse code to communicate with each other, test their radio equipment, or pass along friendly information. Morse code is essential in helping people communicate during disasters and emergencies because of its signal ability to penetrate adverse weather issues and propagation disturbance. ARRL offers a variety of resources for those interested in learning Morse code. Visit <http://www.arrl.org/learning-morse-code> for more information.

ARRL The National Association for Amateur Radio® is on Threads, the new social media platform from Meta. Connect with your association via our handle @arrlhq. Find all of our social channels and ways to connect at [www.arrl.org/arrl-social-media](http://www.arrl.org/arrl-social-media)

### Commercial Interests Petition FCC for High Power Allocation on Shortwave Spectrum [Updated 7/18/2023]

The ad hoc group "Shortwave Modernization Coalition" petitioned the Federal Communications Commission (FCC) to allow data communications on multiple bands within the HF 2 – 25 MHz range with up to 20 KW, including in bands immediately adjacent to spectrum allocated to the Amateur Radio Service. This group appears to represent high-speed stock trading interests.

ARRL - The National Association for Amateur Radio® is treating the petition as a subject of concern for its members and the greater Amateur Radio Service. ARRL Laboratory staff are studying the matter from a technical standpoint, including analysis of transmitted signals potentially interfering with Amateur Radio communications on Amateur Radio spectrum. The results from this expert review are being finalized and will inform ARRL's filed comments on the matter. The FCC has assigned the petition RM-11953. Comments are due by July 31, 2023, and reply comments by August 15. While the petitioners exclude the amateur bands, high power operations on immediately adjacent bands are proposed. A copy of the petition is at: <https://www.fcc.gov/ecfs/document/1042840187330/1> (PDF).



## Message from ARRL President Rick Roderick

**Rick Roderick, K5UR**  
ARRL President



The ARRL Board of Directors completed their second annual meeting. I'm writing to let you know that they made the tough, but necessary, decision to increase the regular membership dues rate to \$59 a year starting January 1, 2024 (see [2024 Dues Rates](#)). Additionally, we have chosen to separate the printed, mailed magazine from regular membership. Members will be able to choose whether they want to add-on a print subscription to any of our magazines including *QST*, *On the Air*, *QEX*, and *NCJ*. All members will continue to have online, digital access to each of these four magazines and the digital archive as part of their regular membership benefits.

This is only the second time in 22 years that ARRL has raised our dues. It is a necessary part of ensuring ARRL is supported so we can continue to promote and fight hard for our Amateur Radio Service, while providing benefits and services for our members that increase your knowledge and enjoyment of ham radio.

To help us make this decision, we invited every ARRL member to participate in a survey in May. Over 20,000 members responded (you can view the survey results [here](#)). We know from the survey results that most of you will find the new rate reasonable, or even ask why we didn't set it higher. We also know that some may find the rate is too high. As I've shared with many of you during my visits at hamfests and conventions, each of us has a responsibility to be active participants, and to support ARRL if we want to increase our ranks and ensure a lasting legacy for amateur radio's future.

You told us that you value ARRL's advocacy efforts, including spectrum defense, standing up to regulators and policymakers, and our work in other areas that defend, promote, and grow amateur radio - including STEM outreach to schools, teachers, and youth. **There is no other organization that is working harder to advance a vision that allows any citizen to explore, develop, and practice radio communications and radio technology.** Your feedback showed us the many benefits, services, and programs you use - from Logbook of The World, to the work done by the ARRL Lab to test equipment for product reviews. While our magazines topped the list of benefits, many of you also shared that your reading preferences have changed. Some of you prefer print, and increasingly members prefer digital. As a result, for those who prefer print, you will be able to subscribe to *QST* and/or *On the Air* magazine. Again, all members will continue to have access to the digital editions of all four ARRL magazines.

Have you ever heard a Life Member say, "I got a good deal when I signed up for Life Membership 25 (or 30, or 40...) years ago." They're right! They got a good deal, but continuing to serve Life members is not sustainable without making some changes. So, we're going to freeze new applications for the program, not adding any new Life Memberships until we can price the offering to be revenue neutral over its term. And, again, as more members prefer digital, we'll be asking current Life Members to opt-in if they want to continue to receive *QST* by mail.

The cost of doing business goes up every year. During the last couple of years, the costs associated with printing and postage have increased significantly. We've cut and delayed hiring for some positions on our professional staff - one of the smallest teams we've had staffing our headquarters in Newington, Connecticut, in years. We are also continuing to examine other cost-saving measures, but we cannot go further without reducing or eliminating benefits and programs which our members have told us are important to them.

I can assure you that the ARRL Board exercises due diligence and oversight in making sure your association is a good steward of your membership dollars. The reality is that ARRL does a lot - in fact much more than dues cover.

ARRL shares your passion for amateur radio. We are committed to strengthening and growing our community, and protecting our rights to use and experiment on our amateur radio spectrum. We have a 109-year track record that includes YOU as part of that ongoing legacy of support for amateur radio and ARRL.





## PLEASE - PLEASE Encourage New Operators



Sparky says,  
"Encourage new hams, don't criticize them!"

**Dan, KB6NU**



You've probably all heard this at one time or another. A newly-licensed radio amateur gets on the local repeater and then either gets ignored completely or criticized for using a Baofeng or committing some minor operating error.

Can you think of a worse experience for a new ham? I'd bet that in some cases the new ham decides to give up on ham radio entirely. At the very least, it sours them on the ham radio experience.

We really need to be more encouraging to new hams and to hams that are either returning to the hobby or working on a new skill. Here's an example. Yesterday, I worked a fellow doing a POTA activation. He was operating CW, and he made a couple of mistakes, but in the end, we completed the exchange, and I re-spotted him. A couple of minutes later, I saw him re-spot himself with the message, "QRT.....gotta work on my ham-fisted CW."

As I said, he made a couple of mistakes, but he wasn't all that bad. I looked him up on QRZ.Com and emailed him:

Hi...

First, thanks for the POTA QSO.

Second, regarding your comment, "gotta work on my ham-fisted CW," I'd say that you're doing exactly the right thing. Getting on the air is the best practice, and if the others can't deal with mistakes while you're getting better, then the heck with them. :)

Keep on pounding brass.

73!

He replied:

Thank you so much for the encouragement (and the QSO). It's been a bit rough going for me the past few times activating on both sending and copying. I kind of get into my own head sometimes and your comments really help me remember that this is a CW journey and not a 'light switch'. Thanks again for working me at a park and helping me get the on-air practice in!

How cool is that? I'm going to make a point of looking for him every time I load up <https://pota.app> and work him if I can. I'll also note that he looked to be in his 30s, going by his picture on QRZ.Com. So, not only is he a relatively new CW op, he's a relatively young CW op. So, there are two good reasons to encourage him.

Yesterday, I also worked a guy who told me that I was his first contact in 20 years! Whenever I work someone who has been off the air for a while, I welcome them back, noting, "WE NEED AS MANY CW OPS AS WE CAN MUSTER." Immediately after the contact, I filled out a QSL card and commented, "Welcome back to CW. Please call me any time."

It's certainly better for everyone involved to be encouraging than it is to be critical. Criticism rarely helps, but patient encouragement, be it sending a QSL card or an uplifting email or a quietly-given piece of advice, can really make a difference. Please leave a comment below on how you encourage your fellow hams.



# PCARS Field Day - 2023



**Tony, WA8AR**  
Field Day Chairman



Field Day 2023 went very well in general. We did have some problems on Saturday with propagation due to geomagnetic storms and several solar flares. However, those conditions affected everyone, and our operators fought through and made a very good number of contacts.

While we know what we accomplished, we will not know our final standing until it is published in QST in December. Regardless Field Day was a success for PCARS.

I would like to thank everyone who attend Field day. A special thanks goes out to the Station Captains; Volunteer Operators; all of the FD Staff who worked throughout the year planning and executing a long list of tasks, and the Volunteers who helped with antenna Setup/Teardown. The success of Field Day 2023 would not have been possible without each and every one of you

First of all I want to congratulate everyone who participated in the PCARS 2023 Field Day. You all helped make 2023 another successful Field Day. Station Captains, IT Captain; Operators; Loggers; Power Team, and our volunteers who all helped get our stations setup and torn down in record time. We could not have done this without all of you pitching in.

Every year tweaks are made to equipment, procedures, training and management with the objective of improving our operating performance. The objective is to make PCARS the #1 in our operating class (so far we have made it to #2 .... Just not good enough .... YET!). Then again the results of 2023 are not in. **Just remember to have FUN and simply enjoy our great hobby.**

Special Recognition must go to this year's Field Day staff for outstanding performance:

**FD Cochairman: Tony Romito, WA8AR**  
**40m Captain: Ed Polack, K8IV**  
**20m Captain: Mike Sabo, N8WCP**  
**VHF Captain: Mike Ryan, KB8TUY**  
**CW Captain: George Proudfoot, K3GP**  
**Flex Captain: Rick Kruis, K8CAV**  
**GOTA Captain: Jim Wilson, AC8NT**  
**IT Captain: Zeb Smith, KD8WZS**  
**Power Team Captain: James Andrews, KD8VT**  
**Public Information Table & PIO: Parky, KB8UUZ**  
**Training: Jim Wilson, AC8NT**  
**Safety Officer: Tony Romito, WA8AR**



# PCARS Field Day 2023 - Submitted to ARRL

The final PCARS Field Day 2023 report was done and sent in to the ARRL. It was submitted on the ARRL's web app. for Field day and the additional required information was also included as an upload. Everything has been received and accepted. Now we have to wait until later this year (usually in December) to see how we did compared to the other 4A stations in Ohio and the USA. It was a GREAT Field Day and all went fine and it appeared all had FUN. Only 10 more months until Field Day 2024. *Start planning NOW.*

## Portage County Amateur Radio Service - Field Day 2023

Call Used: **K8BF** GOTA Call: **AC8NT** ARRL/RAC Section: **OH** Class: **4A**

Participants: **62** Power Source(s): **Generator, Battery, Solar** Power Multiplier: **2X**

**Score Submitted: 10,900 + 1915 Bonus = 12,815**

### Score Summary:

	CW	Digital	Phone	Total	
Total QSOs	1081	586	2116	3783	
Total Points	2162	1172	2116	5450	X2 = Claimed Score = 10900 (not including bonus)

### Bonus Points:

Description	Points
100% Emergency power	400
Media Publicity	100
Set up in a Public Location	100
Public Information Table	100
NTS message to ARRL SM/SEC	100
Formal NTS messages handled - No.=10	100
Solar power QSOs completed	100
W1AW Field Day Bulletin	100
Educational activity	100

Description	Points
Site Visit by invited elected official	100
Site Visit by invited served agency official	100
GOTA Bonus	125
GOTA Coach	100
Submitted via the Web	50
Youth Participation	40
Social Media	100
Safety Officer	100
<b>Total Bonus Points</b>	<b>1915</b>

### Band/Mode QSO Breakdown:



	CW		Digital		Phone		
	QSOs	Pwr(W)	QSOs	Pwr(W)	QSOs	Pwr(W)	Totals
80m	141	100	202	100	-	-	343
40m	916	100	71	100	1478	100	2465
20m	2	100	155	100	568	100	725
15m	22	100	101	100	35	100	158
10m	-	-	4	100	11	100	15
6m	-	-	49	100	-	-	49
2m	-	-	3	100	-	-	3
GOTA	-	-	1	100	24	100	25
<b>Total</b>	<b>1081</b>		<b>586</b>		<b>2116</b>		<b>3783</b>



**First K8BF Contact** was logged by **K8KSU** at 18:02 UTC on Saturday by the **40 Meter Station** to N2YLJ in WNY.  
**Last K8BF Contact (3760)** was logged by **K3GP** at 17:59 UTC on Sunday by the **CW Station on 40 Meters** to W4TM in GA.





# PCARS Field Day 2023 - Operator Contact Totals



## Contact Totals by Operator

#	Operator	Contacts
1	WB9LBI	511
2	K8KSU	458
3	W8PT	419
4	K8IV	382
5	K8RR	313
6	K3GP	241
7	N8QE	228
8	N8WCP	169
9	K8FF	161
10	N8BI	129
11	W8NET	105
12	N8NB	82

#	Operator	Contacts
13	KD8WCK	81
14	KE8BWA	77
15	AD8IR	74
16	KA8TOA	73
17	WA8LRW	67
18	KP4VZ	61
19	W8KNO	42
20	W8AHC	34
21	AD8FQ	25
22	AC8NT	17
23	KB8TUY	8
24	WD8DAU	1

# PCARS Field Day 2023 - GOTA Station

**Editors Note: What a bunch of fun watching the GOTA station in action.**

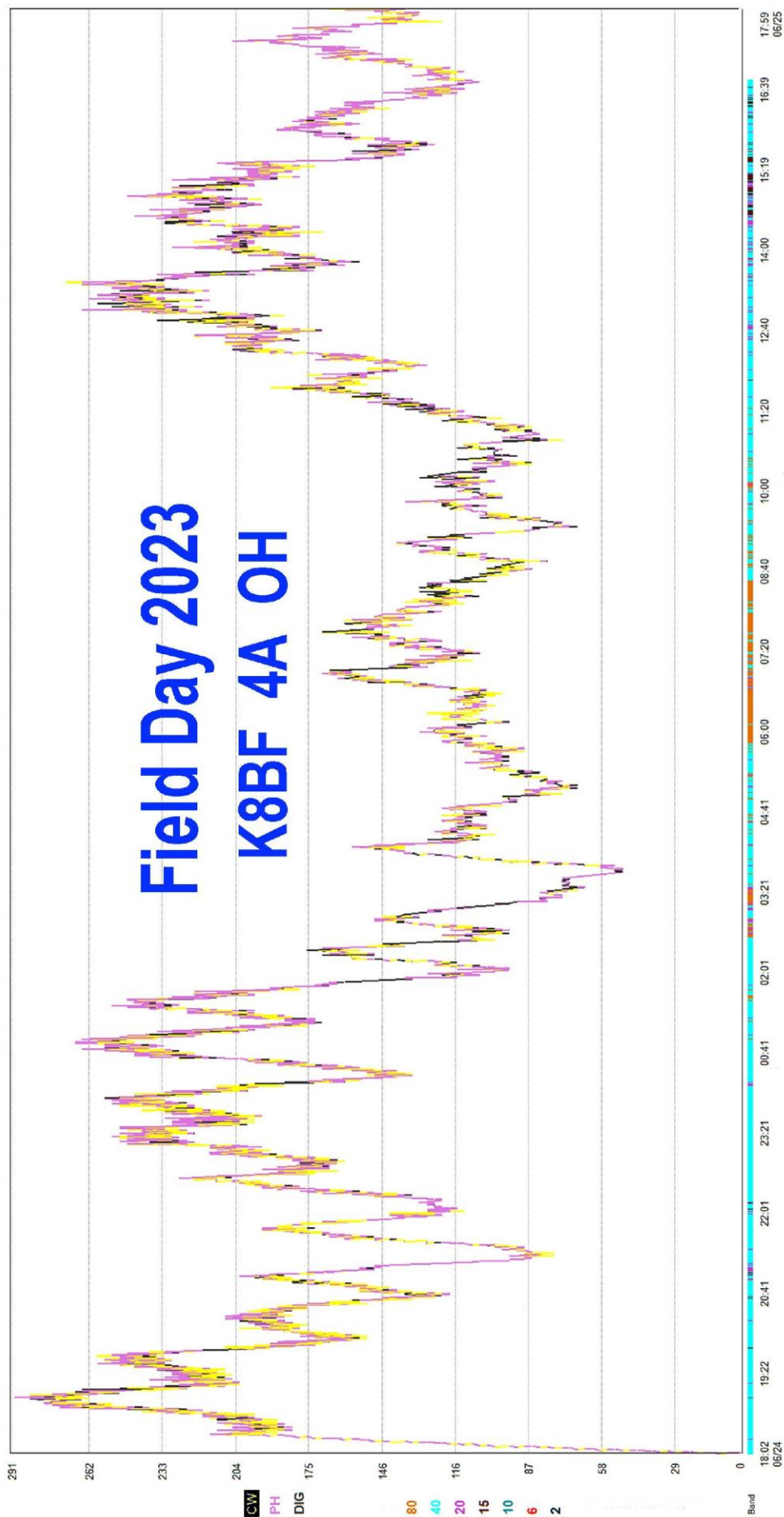
Zeb, KD8WZS, the GOTA Coach, and his son Finn, the GOTA operator, used the GOTA call AC8NT. Zeb set up a radio and put out a small ground mounted vertical antenna with a couple of radials. Zeb wrote up a 'cheat sheet' on cardboard with key phrases that Finn could say while making a contact when Zeb pointed to them. Using this set up, he got Finn on the air. Finn was excited to be on the air. As with any young operator, there were periods when nothing was in ear shot on the radio and Finn would wander away from the radio. When Zeb heard a station that sounded like a contact could be made, he would yell for Finn to come over to the radio. Finn would race over, grab the microphone and listen then try the contact. During the two days, Finn managed to rack up 24 Phone QSOs and 1 Digital QSO. What a **GREAT** GOTA Team !

**Well Done to both Finn and Zeb !!!!!!!!!!!!!!!**





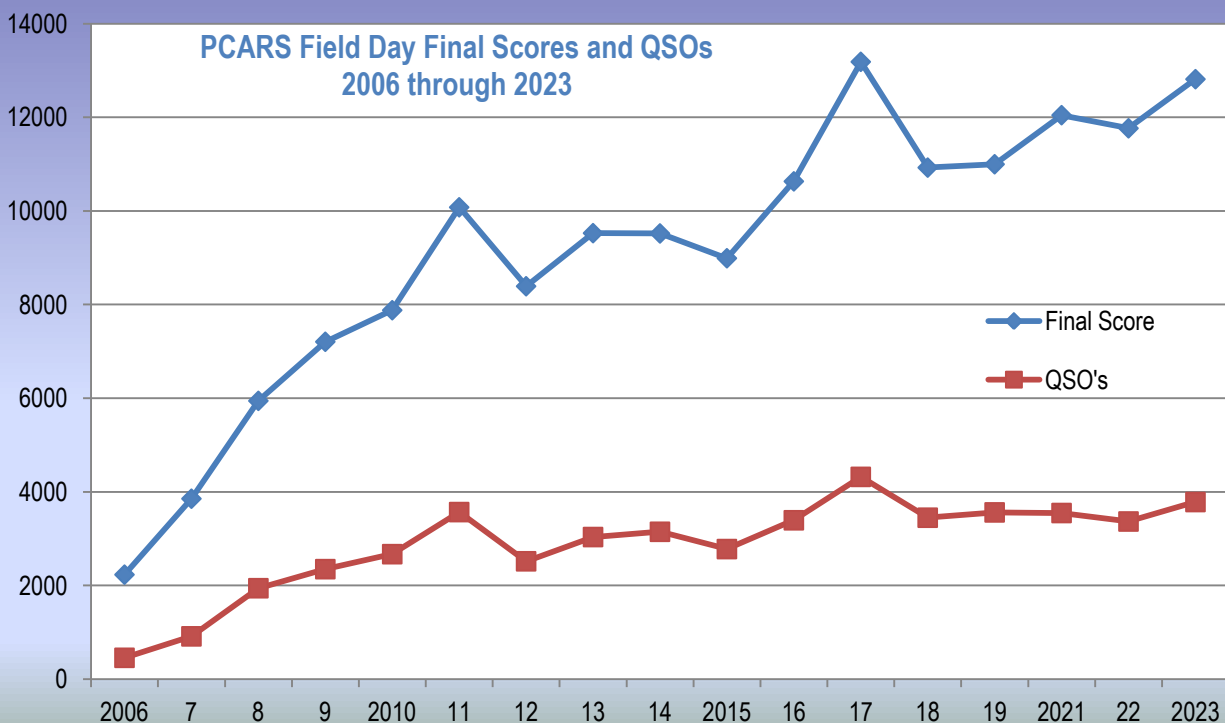
# On Air Activity Graph K8BF



## Field Day - Past Field Day Comparisons

PCARS	Final QSOs	Final Score
2023 - K8BF	3,783	12,815
2022 - K8BF	3,367	11,766
2021 - K8BF	3,548	12,046
2019 - K8BF	3,561	10,998
2018 - K8BF	3,448	10,926
2017 - K8BF	4,320	13,186
2016 - K8BF	3,393	10,632
2015 - K8BF	2,778	8,990
2014 - K8BF	3,147	9,520
2013 - K8BF	3,035	9,526
2012 - K8BF	2,517	8,392
2011 - K8BF	3,568	10,078
2010 - K8BF	2,669	7,880
2009 - KD8CKP	2,349	7,206
2008 - KD8CKP	1,942	5,944
2007 - KD8CKP	914	3,854
2006 - KD8CKP	455	2,232
<b>16 Year Totals</b>	<b>48,784</b>	<b>156,091</b>

(includes bonus points)





# Field Day 2023 - Flex Station



***Rick, K8CAV***  
Field Day Flex Station Captain

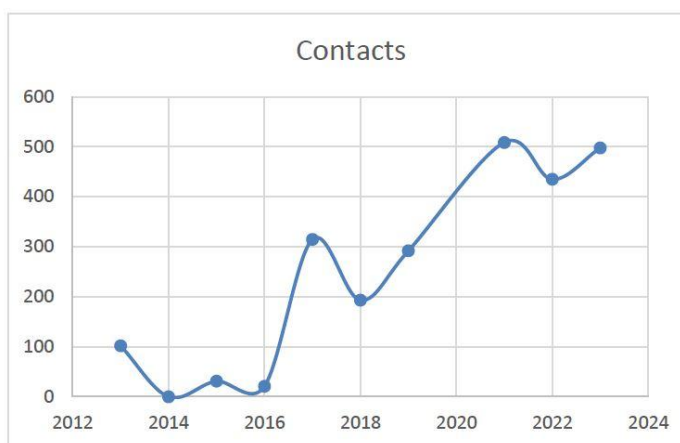


In planning for Flex Station operations for this year's PCARS Field Day event, we set some rather lofty goals. In order to raise the overall PCARS score substantially, Flex's goal was to contribute 750 digital contacts during 22 of the 24 hours during Field Day, with the remaining 2 hours contributing phone contacts. We planned several changes over previous years to achieve our goals. They consisted of a newly designed antenna system with active elements on 80m through 10m, training sessions for WSJT-X using FT8 and FT4, training sessions on the IC-7300 radio to be used at the Flex Station, and a quasi on-the-air Field Day contest using FT8 for hands-on practice.

As with most endeavors in life, what takes place rarely matches exactly, what was planned and Flex was no exception, providing several challenges that had to be overcome. These challenges, highlighted in the Flex Station After-Action Review that was recently published, were all met successfully. In all cases it was solid teamwork throughout both the Flex Station team, and the broader PCARS Field Day team that led to our successes. Additionally, the Flex Station After-Action Review will serve as a guide for a better plan for Flex Station operations in 2024.

Most of the emphasis at Flex this year was to be on digital operations using FT8 and FT4. The table and

Year	Contacts	Location
2013	102	Ravenna Park
2014	0	Ravenna Park
2015	31	Ravenna Park
2016	21	Ravenna Park
2017	315	Freedom Park
2018	193	Freedom Park
2019	292	Freedom Park
2021	509	Freedom Park
2022	435	Freedom Park
2023	498	Freedom Park



graph shows the digital contacts made each year at Flex from 2013 through 2023. While we did not achieve the goal we set of 750 digital contacts, we did improve from last year by 14-1/2% for a total of 498 contacts. Additionally, our Phone contacts at Flex this year increased substantially from last year.

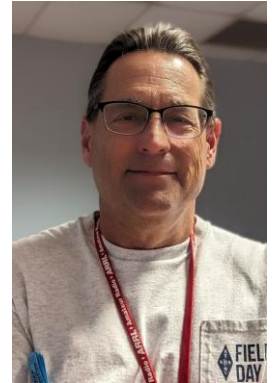
Just getting an event like Field Day off the ground and running, much less showing improvement year to year takes a lot of effort by a lot of people. I want to thank the entire PCARS Field Day leadership and participants for helping make our operations at the Flex Station a success. A special thanks to all of the operators that volunteered to staff the Flex station: Jim AC8NT, Bob N8QE, Ken WA8LRW, Gene W8NET, John KE8MXR, Rick KD8WCK, Mike KP4VZ, Andrew KE8BWA, and Agnes AD8IR.



## Field Day 2023 - 20 Meter Station



**Mike, N8WCP**  
Field Day 20 Meter Station Captain



Another Field Day is in the books. The weather and band conditions were in our favor and everyone had an enjoyable time making contacts, enjoying good food, and the company of fellow hams. Setup and tear down went quickly using a simple inverted V and I appreciate everyone who helped with the work.

I would like to thank our station Ops who hammered away to make contacts: Bob-N8QE, Chuck-W8PT, Greg-KA8TOA, Agnes-AD8IR, Ben-AD8FQ, and Joe-W8KNO.

Special thanks to Tony-WA8AR, our Field Day Chairman who coordinated the activities and teams to ensure a successful event. Rick-K8CAV our liaison to our host Freedom Township. James-KD8VT and crew for providing us with reliable power. Zeb-KD8WZS who along with his son Finn set up the mesh network, workstations, and logging software.

I'd like to see more ops on our roster for FD2024. It doesn't matter if you're a new ham or a seasoned contester, come join the fun! If you're interested in spending some time in front of the radio send an email to [n8wcp.us@gmail.com](mailto:n8wcp.us@gmail.com).

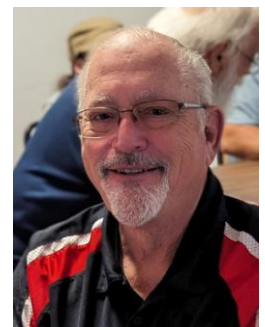
Hope to see everyone at Field Day 2024!



## Field Day 2023 - CW Station



**George, K3GP**  
Field Day CW Station Captain



There I was with the CW trailer in tow. It was 7:30 am and I was the first person to arrive at the Freedom Township Community Park - Where was everybody?

Got the military mast laid out, guy anchors located and driven. By about 8:00 am other PCARS members started showing up. We got the operating position and transceiver set up in trailer. The help crew starts attaching guy lines to the mast, falling derrick and lifting lines prepared to raise the mast. We used Rick K8CAV's winch attached to the falling derrick lift, assistants assigned to guy ropes and the mast was lifted and lines secured. The Inverted V antennas for 80, 40, 15 and 20 were hoisted and antenna SWR tested and all

except 20 meters within specs; 20 meter antenna was close but required the use of the radio internal tuner for best results.

2 pm - *the magic started* - continuous CW operation was sustained throughout the entire 24 hour period - with much thanks to those who manned the station throughout this time (several who did an extended shift or who did multiple shifts): **WB9LBI, K8RR, K8FF, N8NB, N8QE, K3GP**

With Field Day complete at 2 pm on Sunday, station teardown started. Much gratitude and appreciation to the assistance and efficiency of the help crew. The trailer got packed and secured. I pulled out of the parking lot at 3:30 pm. One more Field Day adventure in the books.

Each year, PCARS field day set-up and tear-down get markedly better, thanks to a group of efficient and experienced helper crew.

Thanks also to the Freedom Township officials who welcome us to the park and make sure the grass is freshly mowed a day or two before we arrive. And it was nice have a porta-potty close by as well.

Plans are already in the making for Field Day 2024. See you all then !!!!



## Field Day 2023 - 40 Meter Station



*Ed, K8IV*  
Field Day 40 Meter Station Captain



Hello PCARSians , I sure hope you all enjoyed Field Day this year as much as I did. Each year I find so much fun in being part of PCARS Field Day effort, sharing it with club members and with the folks we work throughout the USA, Canada and the world in many cases! Much of the Big Fun is partly found during the setting up of the stations, of course a big part is operating during the contest! Once the stations are setup and tested, a little relaxation and hunting for a good frequency to camp out on is a good plan. The next Big Fun to be had is dinner, catered by the wonderful folks at Guido's from Ravenna, this year there was nothing lacking, plenty of great food and if you went away hungry ... Well, what can I say.

The Forty Meter Phone station was made up of two trailers, first trailer, which has the 70 foot tilt up crank up mast arrived about 7:30 am. Then a rush home to ready and tow the 20 foot Modified Box Trailer, it contained all of the items needed to set up a complete station including Air-conditioning, Heat & dehumidification. The 8 foot table on board supports 2 complete stations, (only one in use at any given time) two wall-mounted CRT Monitors ready for IT to set up the PC. We were ready to go by 11:00 am Thanks to Jack, N8BI & Chuck, W8PT and so many others from the club who helped with the setup!

The 40 meter station also sports a 3 x 5 solar panel capable of powering the 100 watt Elecraft K3 radios without any other sources of power, at least until the sun goes down, it also charges a pair of large Glass Mat batteries as additional back up. This setup buys an extra 100 points to our FD effort.



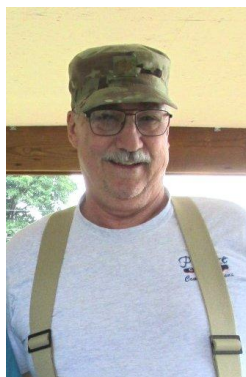
The (contest - *grin*) Operation went very well, Mel, K8KSU was our kick off team member this year and perform extremely well, championing the first 4 hours, bet there was some butterflies going on there! I must thank all of the fantastic operators that help make this station such a success this year; we kicked this operation in the butt!

The well-seasoned and accomplished operators included, **Mel, K8KSU - Chuck, W8PT - Jack, N8BI - Rod, K8RR** and **myself K8IV**. **A BIG Thanks to All of You!**

Band conditions this year were for the most part fairly decent on 40, seems like a bit more atmospheric noise this year, at least part of the time. The preliminary number of Q's the 40 phone station worked this year is 1478, adding the other phone stations Q's on 20 meters, 15 meters and 10 meters, garnered a total Phone Q's of 2092. Sounds pretty good to me!

A ***BIG Thank You*** to Tony, WA8AR the Field Day Chairman for an Excellent Job coordinating the well run event, and the support staff! A ***BIG Thank You*** to James, KD8VT and family for powering this event again this year, all worked flawlessly! A ***BIG Thank You*** to Zeb, KD8WZS and Son for the well operating mesh network which also operated flawlessly! I know you were threading the needle between this and work! A ***BIG Thank You*** to Rick, K8CAV contacting the fine folks from Freedom Township, without their blessing this great site would not be available! Last but not least, a ***BIG Thank You*** to President Nick, AC8QG for God Fathering and assisting Tony and all club members as needed.

Ham Radio is a passion for me and it's easy to say Field Day stokes that passion in a fantastic way! Here's to next year's 2024 Field Day, may it be grand as ever!!!





# Field Day 2023 - PCARS Photos



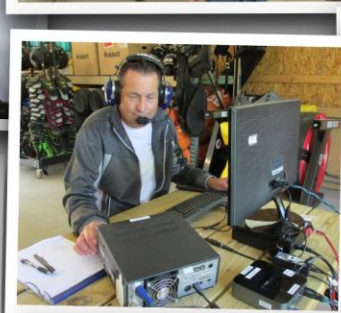








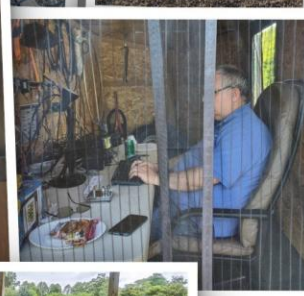


















**WE NEED YOUR HELP!**

## The HamSCI Festivals of Eclipse Ionospheric Science *Inform and Encourage Clubs and Hams To Participate in This Event!*

**What:** The Solar Eclipse QSO Party (SEQP)

**When:** October 14, 2023, and April 8, 2024

**Where:** Operate CW, SSB, FT4/8, and even WSPR and FST4W. Non-WARC bands 6-160 meters.

### Why:

- Help better understand how the ionosphere works!
- How do disturbances such as solar flares, geomagnetic storms, and traveling ionospheric disturbances affect radio wave propagation?
- How does ionospheric science help amateur radio operators improve communications?
- How can I use my existing radio equipment for science initiatives?
- Have fun in a friendly HF competition. And there are other experiments as well!

**Who:** Volunteer amateur radio operators, short wave listeners and science researchers from multiple universities.

The SEQP is conducted by HamSCI –The Ham Radio Science Citizen Investigation -- HamSCI serves as a means for fostering collaborations between professional researchers and amateur radio operators. It assists in developing and maintaining standards and agreements between all people and organizations involved.

### How:

- Sign up [here](http://www.hamsci.org/contest-info) and participate! ([www.hamsci.org/contest-info](http://www.hamsci.org/contest-info))
- **Get on the air on October 14, 2023, and April 8, 2024, before, during and after the eclipse regardless of your QTH.**
- Log your QSO's in a Cabrillo format.
- Submit your logs to [www.hamsci.org/contest](http://www.hamsci.org/contest)

### For more information:

About HamSCI: [www.hamsci.org](http://www.hamsci.org)

About The Festivals of Eclipse Ionospheric Science: [www.hamsci.org/eclipse](http://www.hamsci.org/eclipse)

**Contact:** Ed Efchak WX2R, Public Information Officer: [pressrelations@hamsci.org](mailto:pressrelations@hamsci.org)

*The ARRL is a partner of HamSCI and the SEQP. HamSCI receives funding from NASA, The National Science Foundation and Amateur Radio Digital Communications.*





# Extending a ground-plane antenna

In his book [1], John Lenahan, *K0RW* shows how to achieve a 50Ω resistive feed impedance at a ground-plane (GP) antenna by using the complimentary relationship that exists between lengths of radials and radiator.

This relationship was mentioned in my earlier *RadCom* article: *All we need to know about GP antennas*. John's method is to lengthen the radiator beyond a quarter wave, causing it to have a greater radiation resistance accompanied by inductive reactance. Shortening the radials, which then contribute only capacitive reactance compensates to make the feed point a pure resistance. This eliminates the need to find the suitably-rated capacitor or feeder stub that I proposed. The antenna may then be driven from a 50Ω source via a braid choke. This is usually made by winding several turns of coax through a ferrite or iron dust toroidal core or it may also be simply a coil formed from several turns of coax. It is necessary because the junction of the radials is no longer at ground potential and the feeder itself would otherwise look like another radial. If we make the radials even shorter and lengthen the radiator to maintain a resistive, but higher, feed-point resistance, it would appear to be another convenient technique for fitting the GP antenna into a severely-restricted space.

## A half-wave GP

Let us see how far reducing radial lengths can be taken to minimise the necessary site area for the accommodation of a GP antenna without sacrificing radiation performance. The radiator is expected ultimately to have a length of half a wavelength, when there will be no radials left against which to drive the antenna! A GP antenna for 14.25MHz was modelled in which the radiator was 25mm diameter and four radials were each 15mm diameter. The technique also works for two radials. The feed-point height was 2m above a ground of average conductivity. Figure 1 shows how the gain increases at 14 MHz as the radiator is lengthened whilst radials are shortened to maintain a resistive feed-point impedance.

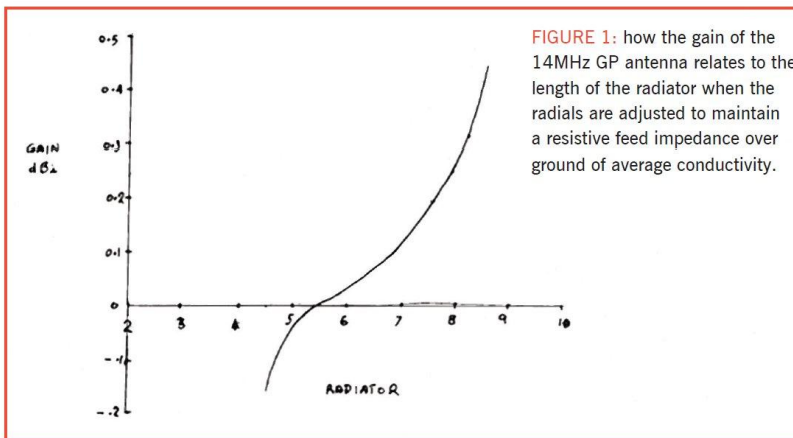


FIGURE 1: how the gain of the 14MHz GP antenna relates to the length of the radiator when the radials are adjusted to maintain a resistive feed impedance over ground of average conductivity.

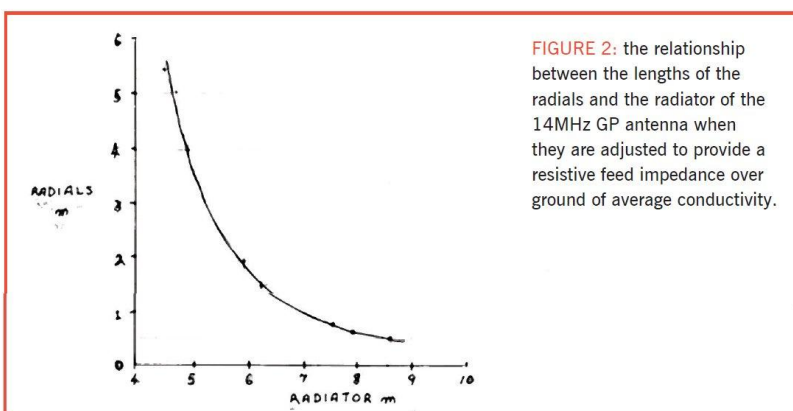


FIGURE 2: the relationship between the lengths of the radials and the radiator of the 14MHz GP antenna when they are adjusted to provide a resistive feed impedance over ground of average conductivity.

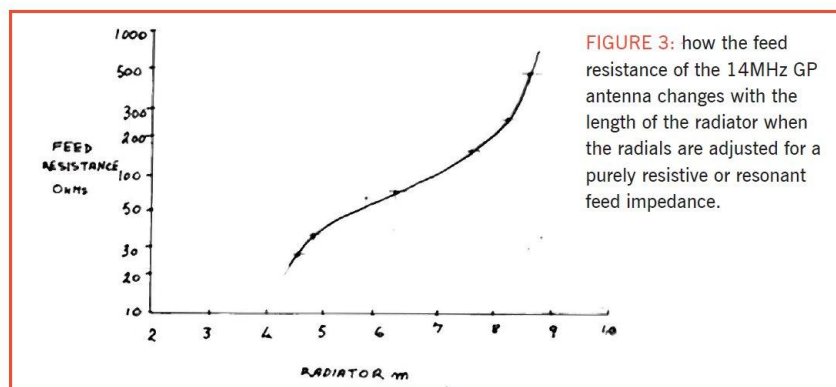
The potential gain advantage over real ground is shown by EZNEC to reach no more than 1/2dB over that of a quarter-wave GP antenna. This is about the same as extending a ground-mounted quarter-wave radiator to half a wavelength over the same ground. Figure 2 shows the corresponding lengths of radials and radiator necessary to maintain a resistive feed impedance. The feed-resistance to radiator-length relationship is shown in Figure 3. If the radiator was a single wire, the impedances would be much greater than shown for the 25mm element. I used EZNEC but John shows how to calculate exact lengths for radials and a radiator of different diameters to ensure a resistive feed impedance. My

modelled results confirmed John's principal to be consistent with my earlier experimental results when preparing my original article.

As the radiator's length approaches a half wavelength, and the radials tend towards zero length, a step change occurs whereby the radials suddenly need to be longer than a quarter wavelength. I have now to compensate for the change from inductive to capacitive reactance of the radiator. The vertical radiation pattern then breaks into two lobes of which the

**Tony Preedy, G3LNP**  
g3lnp@yahoo.com





stronger one is at an undesirably high angle. I decided to avoid this region by accepting 0.4 of a wavelength as a safe maximum physical extension. Electrically, this is about 0.45 of a wavelength. Although increasing the radiator length did not produce much more gain, it did produce a lower radiation angle. This improved DX potential whilst minimising short-skip interference when receiving. For ground conditions of average conductivity at 14MHz, the take off angle for radials of 2m height above ground dropped from 21 degrees for a quarter-wave radiator to 17 degrees for one of 0.4 of a wavelength. A realistic maximum gain, minimum angle, and 400Ω feed resistance at 14MHz was, therefore, to have radials of 0.5m (1ft 8 inches) and a radiator of 8.6m (28 ft 2 inches). For the bands of 14MHz upwards, a radiator of length 0.4 of a wavelength is quite practical because the short rigid radials offer flexibility in mounting the antenna in a restricted location. It is essential to insulate the radials from any metal support, and prevent anyone from touching them, because they will have high voltages present throughout their length.

### Driving the extended GP antenna

Unless we accept a VSWR of 8 on our coaxial feeder when the radiator of length 0.4 of a wavelength has a diameter of 25mm, or a much higher VSWR when the radiator is wire, an impedance-transforming arrangement will be required to reduce the feed impedance to 50Ω. Because the short radials are a long way above ground potential, a choke that will effectively decouple the feeder braid will also be required at the antenna. It needs to have an impedance of at least an order higher than the antenna's to sufficiently restrict current on the braid of a coax feeder. Otherwise, as mentioned earlier, it will detune the antenna by, in effect, adding another very long radial. The impedance of an inadequate braid choke may be increased by tuning it for minimum braid current at the working frequency with a capacitor connected to the braid between each side of the choke. In any case, in order to feed the tubular radiator via 50Ω coaxial cable, it will be preferable to include a 9:1 impedance ratio unbalanced-to-unbalanced transformer. When a wire radiator is used, a choke and a 49:1 unbalanced-to-unbalanced

transformer may be appropriate, or a shorter radiator and choke plus 9:1 transformer. It may be more convenient to choose a 25mm radiator length of 7.8m (25 ft 7 inches) with 0.6m (2 ft) radials. We should then have a feed resistance near 200Ω. This may then be driven via a 4:1 current balun without a choke as has already been tried in the USA and illustrated by John in his book. Because of the extensive measures necessary to feed the extended antenna whilst isolating the feeder braid, my choice would be a parallel-resonant isolation transformer. This offers the facility to adjust the capacitor and/or turns ratio to compensate for residual reactance caused by imprecise lengths of the radials and radiator.

### Lower frequencies

The 14MHz dimensions may be scaled up for lower frequencies. For example, at 7MHz the 0.4 wavelength radiator, when radials are each about 1m long at 2.5m above ground, requires an overall height for the antenna of about 20m. This may be prohibitive in many locations. However, most of the benefits, except the protection from short skip interference that we expect from the extended radiator, may still be realised without exceeding an overall height of 12m. We may achieve this by adding a horizontal wire to make up the radiator's length as an inverted L.

### Reference

1. *Antennas as Transmission Lines: Linear Antenna Analysis and design requiring only algebra and trigonometry*, J Lenahan, via Amazon.

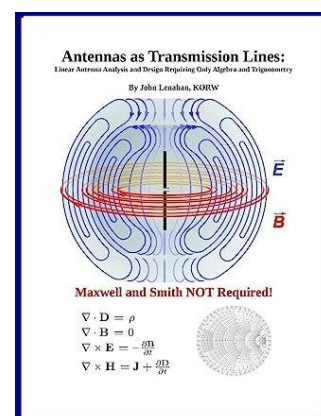
July 2023

45



**Editor's Note:** The above article was spotted by Paul, NO8D. He thought a number of PCARS people would be interested in this technical information. I emailed the RSGB and received permission to reprint the RADCOM article for PCARS.

**Additionally Paul suggested to look at this book that has more very good technical information. *Antennas as Transmission Lines : Linear Antenna Analysis and Design Requiring Only Algebra and Trigonometry* Paperback – June 25, 2022 by John Lenahan (Author) - K0RW. You can find out more about John, K0RW from his bio on QRZ.com.**



**FOR SALE: Original model tinySA-Basic spectrum analyzer.** In factory original box, includes USB charging cable, telescoping antenna, two SMA male to SMA male cables, and SMA female to SMA female adapter. See <http://tinysa.org> for detailed information. \$40.00  
**Alinco model DR-110T** 2 meter FM mobile transceiver. 40 watts (high) 5 watts (low). Includes mobile mounting bracket, power cable with Anderson power pole connector, Alinco DTMF microphone, and printed manual. \$70.00

**Contact: Rick, K8CAV** at [k8cav.com@gmail.com](mailto:k8cav.com@gmail.com) or 330-620-8826 [10/23]

**FOR SALE: Vibroplex Iambic Paddle IAMBIC-S**, Gray Base. DXE price: \$179.95 - Make an offer. Was manufactured in 1987 or 1988. Will bring it to club meeting, Ravenna PCARS site, or you can see and try it at my QTH in Kent. Photo of what one looks like: <https://www.dxengineering.com/parts/vib-iambic-s>

**Contact: David, W8HFY** at 330-673-3146 (leave a message and your number) email: [davidjreith@yahoo.com](mailto:davidjreith@yahoo.com) [10/23]

**FOR SALE: TWO Yaesu FT-50 HTs** - Here is what I am selling as a package: **2 Yaesu FT-50R** Dual Band HT's\*  
**2 Antennas** for them **3 batteries** (1 FNB-49, 1 FNB-47, 1-YV25H2-A)\*\* **1 Master Charger** 1a for Yaesu FT10R/51R  
**1 Yaesu NC-50 Rapid Charger** **2 FBA-15 Battery cases** that take 4 AA Batteries for the radios. **1 RT Systems Radio programming software and cable.** **1 Yaesu MH-34 Speaker/microphone** **2 Premier Speaker/Microphone** (one good, one older with outer coating drying out. Both work) **1 Original box, 1 no box.** **1 original manual, 1 copied manual**  
*\*The FT-50R that is marked "RED" is missing the center battery contact pin. It still works. I do not know what that pin does because on the AA battery packs there is no contact for it to touch on the pack. \*\*All the batteries are older models. They charge but I do not know how long they hold the charge. All the batteries are still available online.* **For the package I am asking \$175** plus actual shipping CONUS. (Will Consider all reasonable offers) **Autotek Ltd. DU-500 Duplexer \$40** **Three OHMITE L100J50R VITREOUS WIRE WOUND ENAMELED RESISTORS 100W 50Ω** One has part of the tab missing. But still able to be used. \$35  
I accept Venmo or Zelle. (please contact me before sending \$\$)

**Contact Bob, W8RID** at [w8rid.usa@gmail.com](mailto:w8rid.usa@gmail.com) [10/23]

**FOR SALE: Yaesu FT-2000 Transceiver with FH-2 Remote Control Keypad.** Will come with original box, manual, & power cord, \$1000.00. **MFJ-976 1.5 KW Antenna Tuner**, \$150. **Ten Tec Century 21 Transceiver** with Crystal Calibrator, \$250. **Yaesu SP-767P Phone Patch/Speaker**, \$50. **MFJ-931 Artificial Ground**, \$100. **MFJ-4906S Duplexer 1.6 - 30 MHz & 50 - 54 MHz**, \$50 *Trying to clean up my shack.*

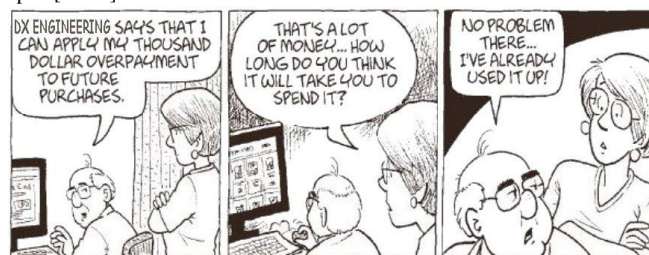
**Contact: Bob, N8QE** at [rhajdak@aol.com](mailto:rhajdak@aol.com) [09/23]

**FOR SALE: Ham Radio items from the Estate of N8IL – Neil Gerren** 1. BK Precision 880 LCR Meter Looks close to brand new, includes TL8KC1 probe and TL8SM Probe (probes are new in sealed packages) Asking \$300. 2. Jennings UCSX-1000-15S Asking \$250 3. Powered 7-port USB hub Asking \$10 4. Weinschel 8200 Controller Asking \$100 5. Elenco 10hz-2.8Ghz freq counter and an Autek Research RF-1 Analyzer Not sure if working - \$2 for both! 6. HEIL Clamp mount w/extra cheapie mount \$5 for both 7. SDR Kits FA-VA5 600 Mhz Vector Antenna analyzer Asking \$65 8. "Not quite so Mini" Hot Spot Asking \$25 9. PS 30SW ii 30 amp Power supply Asking \$45 10. Small box that says "USB Radio" \$10 11. NEW-Coaxial Adapter kit (deluxe) in padded case Asking \$85 12. Diamond 2 position Coax switch – Asking \$25 13. Daiwa CS-201 2 position coax switch with "N" connectors – Asking \$25 14. Heil CC-1-XLR-YB Cable. XLR3 to Yeasu 8-pin round with PTT Asking \$20 15. Ten Tec Keyer Asking \$10 16. 2000Mhz, 90 db ( 1 db steps) attenuator – N connectors - Asking \$175 17. StepIR SDA 100 antenna controller ??? 18. Nano VNA \$20 19. Icom V82 handi-talkie Asking \$40 20. Icom ICT81A untested \$20 21. Yaesu FT-41R \$20 22. Yaesu VX5R Asking \$45 23. Yaesu FT-811 and FT-911 Both for \$25 24. HEIL Footswitch \$10 Much other Miscellaneous Stuff – HT's, cables, connectors - You'll need to stop by and take a look! All sales final, pick-up in Kent, OH at Casa de WB8LCD.

**Contact: Tom Sly WB8LCD** AT 330-554-4650 or EMAIL: [tomsly29@gmail.com](mailto:tomsly29@gmail.com) [09/23]

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: [10/23] indicates the ad will run until the end of October 2023.





## What is Wrong with my ATAS-120A?

*John, WG8X*



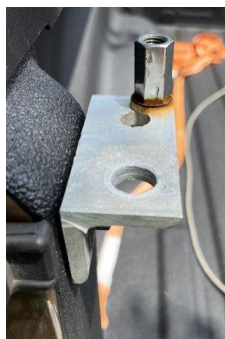
I've had my Yaesu ATAS-120A antenna for less than a year. I've had a few instances where I would swear that the thing is broken and needs to go back for warranty repair. Luckily, that small voice, inside of me says "whoa, let's check some things first". The voice is usually correct, by the way. The antenna works like a champ.

The ATAS-120A is similar to the Tarheel screwdriver antenna, but for several hundred dollars less. It has a motorized element, and changes length in response to being tuned by a compatible radio or aftermarket controller. My FT-891 matches the antenna using either the tune button, or the up/down buttons on the radio menu.

MFJ sells an outboard controller (MFJ-1925) compatible with this antenna. It allows you to use it with radios other than the ones it was designed for. I haven't played with the MFJ controller, and have no plans too.

If my antenna begins acting "Squirrely", I immediately think the worst. But, the problem so far has always been something besides the antenna. So, here are some things to look at if your ATAS-120A refuses to tune:

1. Wait! When you push the tune button, and nothing happens, wait! Don't be impatient. Occasionally I've had to wait a moment for the antenna to think before it keys the radio and actually starts moving. I don't know why mine does this, but it does.
2. Check your grounding! Is your antenna mount grounded properly? Are you using an aluminum bracket and attaching a plated barrel connector to it? Dissimilar metals can be a real pain, when corrosion begins to set in. The joint becomes resistive and starts giving weird symptoms. The ATAS antenna may refuse to tune, but a good whack to the side of it will get it working (Don't ask how I know this). So, every once in a while it is a good idea to do a PM on your mount. Take it apart, clean up all surfaces with a non-metallic scouring pad, then re-assemble being sure to apply a fresh film of Penetrox.



3. How is your feed line? Do you need new connectors? Are they good & tight to the radio, and the antenna? I do as tight as possible by hand, and it seems to work well. I've found that it doesn't take much resistance in the antenna system to limit the amount of current going to the antenna.



4. Lastly, how's your battery voltage? My experience has been that when my battery voltage drops to the low 12V range, it introduces some weirdness in the antenna operation. The ATAS will tune OK when manually raising or lowering it via the menu options, but will not work when activated via the Tune button. Maybe it just doesn't have enough power to tune properly? I don't know.

My system usually consists of a Yaesu FT-891 driving the ATAS-120A antenna. The power source is a LiFeP04 battery. For the most part, everything works as designed but once in a while, the ATAS-120A will become a bit stubborn. In every case, the fix has been something on this list.

I sure don't consider myself an expert by any means on these antennas but when you're a couple of hundred miles from home, and you need one more contact to make a valid activation, you become an expert on field troubleshooting real fast.

And that is it. I wish you safe travels, and trouble-free activations.



**Rick, K8CAV**  
Flex Net Coordinator



**Next FLEX Net will be Wednesday August 9<sup>th</sup> at 8:00 PM**

The next PCARS Flex Net will take place on Wednesday August 9th at 8:00 PM. The net will take place on **21.325 MHz**, USB, phone mode.

This net serves two purposes. The first is by using different bands and modes, to be able to analyze your station's radios and antennas for communicating locally using line-of-sight or ground wave.

The second is for PCARS members to be able to contact and confirm (QSL) other PCARS members in pursuit of the PCARS "A to Z" award. (see <https://www.portcars.org/wp/club-info/club-activities/pcars-a-z-award/> for details on this award).

It's a lot of fun so I hope you'll join me on the 9th for another episode of **K8BF BIG FUN!**

## 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)



**If you think it was warm in July.....**

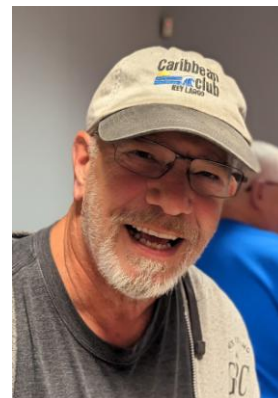
**Just wait - usually August the hottest month of the year.....**





# 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**

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.

**First quarter stats for 2023:** 13 weeks - total contacts 267 average of 20 check ins per net Jan, Feb, Mar  
**Second quarter stats for 2023:** 13 weeks - total contacts 321 average of 25 check ins per net April, May, June

August	
3	KD8WCK
10	N8QE
17	WB8LCD
24	K8CAV
31	KE8ARB

September	
7	KE8BWA
14	KD8WCK
21	N8WCP
28	KA8TOA

October	
5	N8QE
12	KE8ARB
19	N8WCP
26	KE8LWO

November	
2	N8QE
9	KD8WCK
16	KE8BWA
23	<b>NO NET</b>
30	KA8TOA



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



Congratulations goes out to **Michael, KP4VZ** for qualifying and receiving the **Ten Consecutive PCARS Net Check-In Award** at the PCARS meeting in July



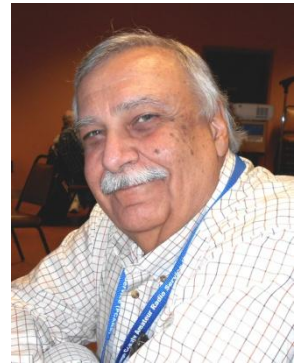
**PCARS K8BF**  
*The Club that puts the FUN in Ham Radio!*



## DX & Contesting Special Interest Group

**Chuck, W8PT**

DX & Contesting SIG Coordinator



**Next SIG will be Tuesday August 24<sup>th</sup> at 7:00 PM**

Charlie the Tuner saying hello from the W8PT Shack. We hold our SIG meeting, as you all know, on the 4th Tuesday of the month. Since I am writing this prior to our meeting, I simply want to give some highlights that we planned to discuss.

The lesser critical things are all the QSO Parties that take place in August. Here's a list. You can't keep up without a program.

Contest Activity in August 2023	
+ 10-10 Int. Summer Contest, SSB	0001Z, Aug 5 to 2359Z, Aug 6
+ North American QSO Party, CW	1800Z, Aug 5 to 0559Z, Aug 6
+ Maryland-DC QSO Party	1400Z, Aug 12 to 0400Z, Aug 13
+ Kentucky State Parks on the Air	1400Z-2200Z, Aug 12
+ North American QSO Party, SSB	1800Z, Aug 19 to 0559Z, Aug 20
+ ARRL Rookie Roundup, RTTY	1800Z-2359Z, Aug 20
+ Hawaii QSO Party	0400Z, Aug 26 to 0400Z, Aug 28
+ World Wide Digi DX Contest	1200Z, Aug 26 to 1200Z, Aug 27
+ Kansas QSO Party	1400Z, Aug 26 to 0200Z, Aug 27 and 1400Z-2000Z, Aug 27
<b>+ Ohio QSO Party</b>	<b>1600Z, Aug 26 to 0400Z, Aug 27</b>

**RED means PCARS – K8BF will be On-The-Air from the Club Site**

Additional Contest information for August can be found at - <https://www.contestcalendar.com/contestcal.html>

A big one is the NA QSO Party since it includes HAMS in Canada, United States and Mexico. Many play in that one. But the **BIG ONE** for us is the Ohio QSO Party since we will be putting K8BF on the air once again. I hope to see many, many PCARS members at the OHQSOP/BBQ.

For many years we have had the PCARS open house/BBQ Party on that Saturday. It will be no different this year. There will be burgers and brats along with all the condiments, supplied by PCARS. And hopefully others will bring a dish to pass such as potato salad, baked beans, etc, etc. All who have shown up have had a very fun time.

Back to the meeting... one of the topics that we will have discussed is who will be the contest coordinator for the OH-QSOP. As many of you know, I am stepping back from the position of PCARS Contest Coordinator and someone has to step up. Hopefully, someone would have volunteered during the meeting but I cannot confirm since at this time, the meeting has not taken place.

I hope to see many of you there or attending by ZOOM. Join Zoom Meeting

<https://us02web.zoom.us/j/85790426465?pwd=YVBtUnhMaXVwNTN5amxsQnU0RnhDdz09>

**Meeting ID: 857 9042 6465**

**Passcode: PCARS2022**





## Antenna Special Interest Group

**Bob, N8QE**  
Antenna SIG Coordinator



**Next SIG will be Tuesday August 15<sup>th</sup> at 7:00 PM**

The next meeting of the PCARS Antenna Special Interest Group will be held August 15, 2023 at 7:00 PM. We will be in-person at the PCARS club site and on Zoom.

At the July meeting we had a record 16 attendees In Person & on Zoom. We discussed David's "Whales On The Air" FT-8 project, Mark's, W8GU 2 Meter antenna needed to reach the K8IV Repeater for PCARS Net check-ins, Rick's, K8CAV Field Day Fan Dipole mechanical failure and proposed corrections for next year, and Joe's K8HTB needs to bring down his tower to repair a defective balun connection.

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 antenna related projects with the group.

Join Zoom Meeting:

<https://us02web.zoom.us/j/87220356586?pwd=czgvdLzRPcjVBT2hPSkVIZU1VaU84Zz09>

Meeting ID: 872 2035 6586

Passcode: PCARS2022

## Digital Special Interest Group

**Rick, K8CAV**  
Digital SIG Coordinator



**Next SIG will be Tuesday August 1<sup>st</sup> at 7:00 PM**

The next PCARS Digital Special Interest Group meeting will take place on Tuesday August 1st at 7:00 PM at the club site. This will be an open-forum meeting where we can discuss anything involving digital communications over radio.

As we always do, time will be available for answering questions or helping with any problems you may be having with digital communications.

For those of you who use a laptop with a Signalink for your digital setup, I have recently constructed a test setup for you to connect your laptop to, to help in your settings and to verify operation of fldigi and select NEMS programs, and WSJT-X and will be available at the meeting.

Can't be there in person? Then join us in the Zoom Meeting:

<https://us02web.zoom.us/j/88355094567?pwd=ZzRvd1hmQWNaYlZEcGF0dVhuNlNiQT09>

Meeting ID: 883 5509 4567

Passcode: PCARS2022



## Portable Ops Special Interest Group

**John, WG8X**  
Portable Ops SIG Coordinator



**Next SIG will be Tuesday August 8<sup>th</sup> at 7:00 PM**

Here we are, almost at the end of July. It's hard to believe how fast the last month has flown by. There was lots of opportunities to get on the air. I hope you were able to take advantage of them. There was Field Day of course, which was a great opportunity to get out and flex your portable operating skills.

Then, after a short lull, we went from Field Day to the 13 Colonies special event. Once that wrapped up, POTA had their quarterly Support Your Parks weekend on the 15th and 16th. And in between that we had some beautiful weather to go out and play radio in the local parks.

So, our next portable operations SIG will be coming up on August 8<sup>th</sup> and I want to hear all about "*How you've been spending your summer vacation*".

Brandon, KE8ARB is also going to pop in and give us an update on his QMX build, and his solar panel project.

Oh yes, lets pick a date & venue for the next **PCARS ParkPedition**, where we invade a local park, and activate it for POTA. It's a perfect way to get your feet wet in park activating.

Last, but not Least, this is the last Portable Ops SIG meeting before OSPOTA. This will be the 16<sup>th</sup> running of this contest that predates NPOTA (National Parks On The Air), and POTA (Parks On The Air). In fact, I've heard it said that NPOTA was inspired by OSPOTA. Let's hear about your plans for OSPOTA '23.

We'll be back at PCARS club site this month. We start at 7 PM. The address is 705 Oakwood St, Ravenna, OH.

We will also be available via Zoom Here's the  
link: <https://us02web.zoom.us/j/89732195744?pwd=cldtZmxMcmFqQndhQWtJN0s2NUNnUT09>  
Passcode: PCARS2022

## Could Be Anything Special Interest Group

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



**Next SIG will be Tuesday August 29<sup>th</sup> at 7:00 PM**

Please join us on the 5th Tuesday of August for a double-barreled hands on session:

### Tube Testing



Joe W8KNO has kindly made available to the SIG his B&K 747 Dyna-Jet dynamic mutual conductance tube tester. This tester far exceeds the capabilities of your old drug-store tube checkers we may have used years ago.

So, if you have a project underway or awaiting the famed **Round TUIT** to get started, bring tubes and we will check their condition and performance. Please remember there is always the slim possibility that the testing process might kill you or the (thought it was good but it really wasn't) Device Under Test so the risk is yours. Joe may be present or on Zoom to answer questions.





## Toroid Identification



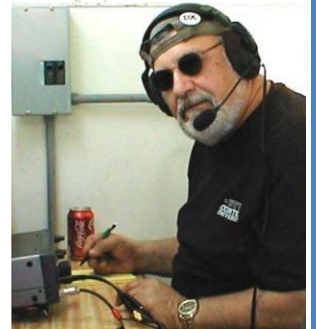
Based on Jim AC8NT's February 2023 Radiogram article, we will go through the process of measuring known and unknown toroids. Jim will loan us his LCR meter for the session, as well as a drill jig for removing the coating on a toroid to get a reliable measurement.

So: bring that pile or bag of mystery toroid cores from your bench and junk box, and bring your LCR meter if you have one. We'll step through the process that Jim outlines in his article. You may want to look at <https://www.youtube.com/watch?v=Q95Vwk3kZok> this YouTube video too, in advance of the session.

I look forward to seeing you there!

## Charlie the Tuner's HF High-Lites

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



### Greetings DXers

### Charlie the Tuner's DX High-Lites

Can't believe it's already August. Didn't the year just start. I believe that I was shoveling snow just last week. Now it's time to pick veggies from the garden and get some sweet corn on the grill. You younger guys probably don't feel the speed of the days and weeks passing by. But wait..... when you get past 50, you will start to wonder where the days are disappearing. They go fast.

Well, enough philosophizing. What about the bands. I recently saw that they think Cycle 25 will now peak around December of this year. A while back they were saying that it would peak sometime in 2025. Maybe these are the same guys who were predicting that Cycle 25 would be a Maunder Minimum. Well we might treat them as they did false prophets of old. I recall stones were used.

I really don't think that we need to know just when Cycle will peak. As a DX junkie, all I'm concerned with is getting on the air and working some great DX and maybe adding to my DXCC total. I keep remembering that I worked a lot of DX when we were at low points in the bands so if we are serious about working DX, we simply keep at it.

So let's take a look at August and maybe a couple of months after that.

**Thanks to** W1AW, W3UR & The Daily DX, DL5ON & The DX News Letter, DXNews.com, DX-World.Net, I1JQJ/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.

### August...

**3C, EQUATORIAL GUINEA.** Ersoy, TA2OM is QRV as 3C3CA from Bioco Island, IOTA AF-010, for another month. QSL via LoTW.

**9Q3, CONGO.** Vladimir, OK2WX will be active as 9Q3WX from Democratic Republic of the Congo, August 15 - September 3. He will operate on HF Bands, CW, SSB, Digital Modes. QSL via IZ8CCW.

**A6, UAE.** Special event callsign A60AP (QSL via EA7FTR) will be active until 31 August. The suffix stands for the Emirates 'Astronaut Program'; launched in April 2017, prepares crews of UAE astronauts for missions to

the International Space Station and other destinations in space. Also expect activity by A60AP/0, A60AP/1, etc.

**BY, CHINA.** David, K6FA is QRV as BY2/K6FA until the middle of August. Activity is holiday style on the HF bands using mainly CW. QSL via LoTW.

**C2, NAURU.** Look again for C21TS in late July to August 2023. Plans are on track for a longer and better equipped operation. More news expected soon.

**HL, SOUTH KOREA.** Wouter, PB1WL is active as HL4/PB1WL from July 17 to August 16. QSL to home call.

**LX, LUXEMBOURG.** LX90RTL marks the first longwave transmissions of Radio Luxembourg 90 years ago. QRV until the end of the year on HF (CW, SSB, digital modes) and via QO-100. Bureau cards will be sent automatically; confirmations also via LoTW.

**RI0, KURIL IS.** RI0FS. Radio Amateurs members of Russian Robinson Club will be active from Shikotan Island, IOTA AS-062, Kuril Islands, August 9-17, 2023 as RI0FS. Team - R6MG, R7MR, RN3BL, RU3FS, RX3F, UA0FAM. Recent DX Spots RI0FS They will operate on 80-10m Bands. QSL via RN3RQ.

**TF, ICELAND.** TF/SP7VC and TF/SQ7OYL will be active from Iceland, IOTA EU-021, until August 17, 2023. They will visit various locations and will operate HF, VHF, EME. QSL via SP7VC.

**V4, SAINT KITTS ISLAND.** W5JON will be active again as V47JA from Saint Kitts Island, IOTA NA-104, 28 August - 12 September 2023. He will operate on 160 - 6 m (Including 60m), SSB, FT8. QSL via home call direct, LOTW.

**XZ, MYANMAR.** Akio, JE2QIZ is QRV as XZ2B from Yangon until the end of September. Activity is on 15, 12, 10, and 6 meters using CW. QSL via JE3SIF.

### **And a Look Ahead...**

**4W, TIMOR LESTE.** 4W8X Team will be active from Timor Leste, IOTA OC - 148, in November 2023. They will operate 160 - 6m, CW, SSB, FT8 including activity in CQ WW DX CW Contest, 25 - 26 November 2023 in Multi Multi Category. They will operate also EME on 144, 432, 1296 mHz. QSL via DJ4MX.

**E6, NIUE.** Stan, LZ1GC and Dimo, LZ1ON active as E6AM from Niue (OC- 040) Oct 10-23. Operating CW, SSB, FT8 and maybe some RTTY on 160-6 m. QSL via Club Log's OQRS (preferred), LoTW, or via LZ1GC (direct or bureau).

**BV, TAIWAN.** BW2/JP1RIW is active as BM0QSO until December 31, using mostly digital modes. QSL via BM2JCC.

**D44, CAPE VERDE.** D44TWO will be active again from Praia, Santiago Island, IOTA AF - 005, Cape Verde, Cabo Verde, 2 - 17 September 2023. He will operate on HF Bands, CW, SSB, Digital modes and also using QO - 100 satellite. QSL via M0OXO, OQRS.

**FH, MAYOTTE.** Marek, FH4VVK is here until June 2024 and QRV on the HF bands and 6 meters using SSB and FT8. He may soon be active using RTTY. QSL to home call.

**FO, POLYNESIA.** Didier, F6BCW is QRV as FO/F6BCW from Huahine Island, IOTA OC-067, until October 25. Activity is on 80 to 6 meters using CW and SSB. QSL via F6EXV.

**FW, WALLIS AND FUTUNA ISLANDS.** (Reminder) 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.

**H40, TEMOTU.** H40WA Team will be active from Temotu Province, IOTA OC - 065, Solomon Islands, 26 October - 9 November 2023. They will operate on 160 - 10m, CW, SSB, FT8. QSL via M0URX, LOTW, OQRS.

**T2C, TUVALU.** Team will be active from Funafuti, Tuvalu, IOTA OC - 015, 10 - 30 October 2023. Team - DG2RON, DJ7TO, DJ9KH, DJ9RR, DK3CG, DL1KWK, DL2RNS, DL4SVA, DL6KAC, DL7JOM, DL7VEE. They will operate on 160 - 6m Bands, CW, SSB, Digital modes. QSL via DL4SVA, LOTW.

**T32, EASTERN KIRIBATI.** T32AZ. KH6QJ will be active again as T32AZ from Kiritimati Island, IOTA OC - 024, Eastern Kiribati, 1 September - 17 October 2023. He will operate on 80, 40, 20, 15 and 10m. QSL via home call.



**T8, PALAU.** Japanese ops JO3LVG and JM1LIG plan to activate T88MK and T88FM, respectively, from the VIP Guest Hotel's Palau Radio Club from Sept 12 to 19. JR3QFB plans to be there from Sept 12 to 17 and QRV as T88JH.

**TX, FRENCH POLYNISIA.** TX6D Team will be active from Mahina, Tahiti Island, IOTA OC - 046, French Polynesia, 2 - 15 October 2023. Team - DL7DF, DK1BT, DL4WK, DL6SAK, DL7BO, DL7UFR. They will operate on 160 - 10m, CW, SSB, Digital Modes. QSL via DL7DF, LOTW.

**TX, CLIPPERTON IS.** TX5S Team will be active from Clipperton Island, IOTA NA - 011, January 18 to February 2, 2024. Team - Jacky ZL3CW, Dave K3EL, Steve W1SRD, Ricardo PY2PT, Gene K5GS, Heye DJ9RR, Laci HA0NAR, Walt N6XG, Rob N7QT, Glenn KE4KY, Chris N6WM, Arliss W7XU, Philippe FO4BM, Dave WD5COV, Andreas N6NU, Nodir, EY8MM, Allan, EA3HSO. They will operate on 160 - 6m, CW, SSB, Digital Modes, including 60m Band. QSL via M0URX, OQRS. QTH Locator - DK50jh.

**V3, BELIZE.** V3O Team will be active from Belize in WAE DC Contest, 9 - 10 September 2023. Team - DL8UD/V31KO and DK8MM/V31XT. They will operate before and after contest as V31KO and V31XT. QSL for V3O and V31KO via DL8UD. QSL for V31XT via DK8MM.

**ZL7, CHATHAM IS.** Jacek, SP5EAQ will be active as ZL7/SP5EAQ from Chatham Islands, IOTA OC - 028, starting 20 October 2023. He will operate on 80 - 10m, SSB, including activity in CQ WW DX SSB Contest, 28 - 29 October 2023. QSL via home call. QTH - Waitangi.

*Keep in mind that these events can change due to various reasons that sometimes are out of the hands of those who are doing the planning. But there will be several DX entities on the air that many of us want in order to fill our DXCC coffers.*

## IOTA...

**EU-131; I\*3, VENETO REGION group:** IL3P, operated by a group, will be active during July, August, and September from **Pellestrina Island** (DCI VE- 006, POTA I-0916) on HF. QSL via IU3EDK (d/B).



Congratulations to  
the K8BF Contest  
Team that took  
part in the  
Wisconsin QSO  
Party

Highest Score in  
Ohio of 5716.5  
points



# Solar Panel for Extending Portable Operations

**Brandon, KE8ARB**



My lithium batteries serve me very well. I find them light, portable and they provide plenty of power. After an extended stay in the camper, I found myself wanting to find something that could fill the gap between one long day operating at a park, and having to pack various battery chargers, and power supplies. I have been eyeing a portable solar panel for a while and they finally arrived in stock again after many months! What makes a good, portable solar panel? Something that fits in your pack, with enough power to be practical in varied sun, that can be chained, that can charge a portable battery bank, and something that will not generate RFI. If I were to get overly picky, I'd say something that is affordable too, and I think this checks that box. Bioenno has a 40 watt panel that does just this.



Having a panel is only part of the picture. It comes equipped with a +20vdc lead and a USB port. The USB cable can be plugged into the IC-705 to charge the internal battery, but in order to get the most from the radio, +13.8vdc is needed. For this, I built a small voltage converter into an aluminum enclosure and mounted some plugs in the case. This allows the panel to plug directly into the converter.

The construction is straightforward, but there are some considerations that will make the build turn out better. I used the affordable version of polyimide tape to insulate the power converter from the aluminum case. The terminals were removed and the leads were soldered on. Again, putting polyimide tape over the ends. It's worth noting that while the board can slide between the rails in the case, it puts the positive and negative terminals right up against a potential short. Because of this I decided to slide the board above that rail. Everything has stayed in place and doesn't seem to rattle around but I will report back if that changes.



After having a sufficient power source for running the HF rig, we tried to figure out how to charge our FT5DR HT's. The charger that comes with the radio puts out +10.5vdc. We built up another enclosure with two, +10.5vdc outputs and the +20vdc input from the panel. This has proved to work extremely well for us.



For anyone looking to improve power generation on backpacking trips, camping trips, etc. This is a very viable solution.





**Kees Van Oosbree, W0AAE, Named 2023 Amateur Radio  
Newsline Young Ham of the Year**



2023 Newsline Young Ham of the Year

**Kees Van Oosbree, W0AAE**

(Photo courtesy AR Newsline)



Nineteen-year-old Kees Van Oosbree, W0AAE, of Maple Grove, Minnesota, has been selected as the 2023 Bill Pasternak, WA6ITF, Memorial Amateur Radio Newsline Young Ham of the Year. Kees was honored for his leadership in helping other young amateurs through Youth on the Air (YOTA)-Americas program and the Remote Ham Radio Youth Network.

A visit to a museum with an amateur radio station at age 12 sparked his interest in becoming a ham, Van Oosbree told Newsline. Studying on his own, he quickly earned his Technician and General Class licenses, then joined the Minnesota Wireless Association and developed his interest in contesting.

"HF was my life," Kees said. "Contesting is pretty much my main thing in amateur radio although I do branch out and do other things."

Among those "other things" is YOTA-Americas, in which he has taken on a variety of leadership roles including the training of youth operators, serving as QSL manager for W8Y contacts made with YOTA campers and sharing his interest in remote operating.

A 2023 graduate, and class valedictorian, of Heritage Christian Academy in his hometown, Kees will be attending Iowa State University this fall, where he plans to study aerospace engineering.

The YHOTY award will be presented to Kees during a ceremony at the Huntsville Hamfest in Alabama on August 19. Amateur Radio Newsline, CQ magazine, and Yaesu USA are primary sponsors of the award, along with Heil Sound, Ltd. and Radiowavz Antenna Company.

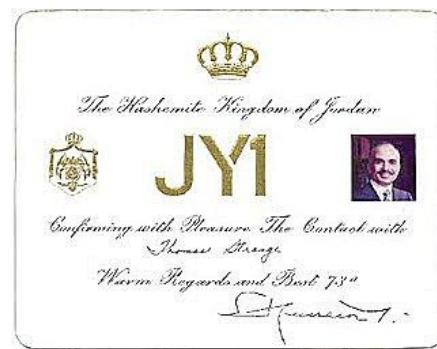
**JY1's Ham Station Donated to RSGB**

**JY1 QSL card**

(Courtesy K8CX Ham Gallery)

Jordan's Queen Noor has donated the ham station equipment of her late husband, King Hussein, JY1, to the Radio Society of Great Britain. The king was very active on the ham bands and always introduced himself simply as "Hussein" to ham contacts.

The ARRL Letter reports that RSGB is preparing a permanent exhibition of the JY1 station at its National Radio Centre at Bletchley Park.



## A New "OTA" – Scout Camps On The Air

There's a new "OTA" program joining islands, summits, parks, and lighthouses on the air ... Scout Camps On The Air, or SCOTA.



According to Newline, the goal is to promote amateur radio operations from scout camps, non-camp Scout-operated stations and everyone else who works them.

The program is the brainchild of Matt Murphy, KR8E. It is still in the formative stages. Interested hams are invited to follow progress or contribute to it by following the group on Twitter <@SCOTA\_k2bsa> or on Instagram at <scota\_k2bsa>.

## Bill to Pre-Empt HOA Antenna Restrictions Reintroduced in Congress

A Republican Congressman from Ohio and a Democrat from Connecticut have jointly introduced a bill to force homeowners' associations (HOAs) to allow amateur radio antennas in the developments that they control. HR 4006 would remove private land use restrictions that prevent amateur radio operators from installing and using "reasonable antennas" on property that they own or control.



This month's "Learning Curve" column is devoted to the bill and recommendations for encouraging your congressional representative to support it. The full text of the bill may be found at <https://tinyurl.com/vtvputst>.



## Net Night at the Club Site - July 27<sup>th</sup>

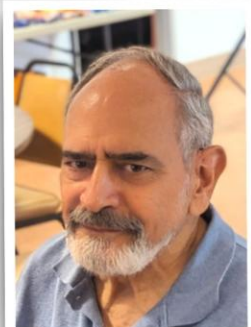
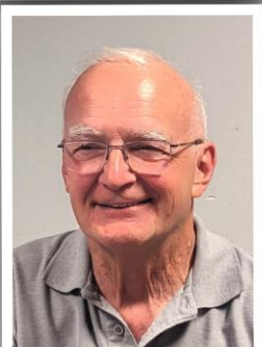
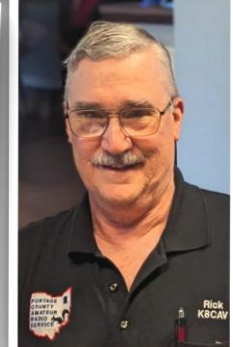
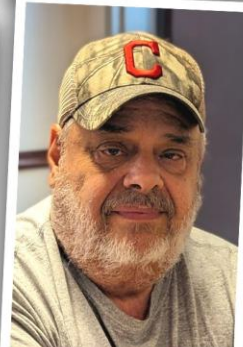
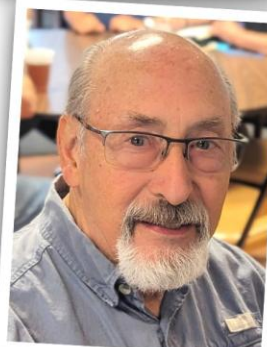
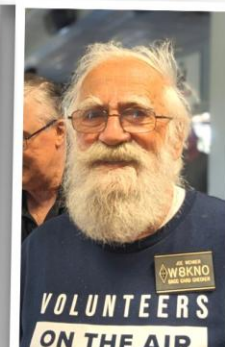
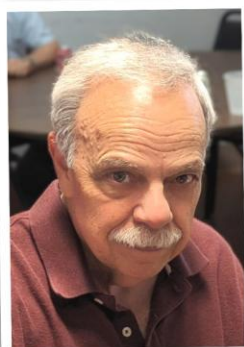


**PCARS K8BF**  
The Club that puts the FUN in Ham Radio!





## Photos from the PCARS Meeting



10 July 23



PCARS





10 July 23





## 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 79 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.



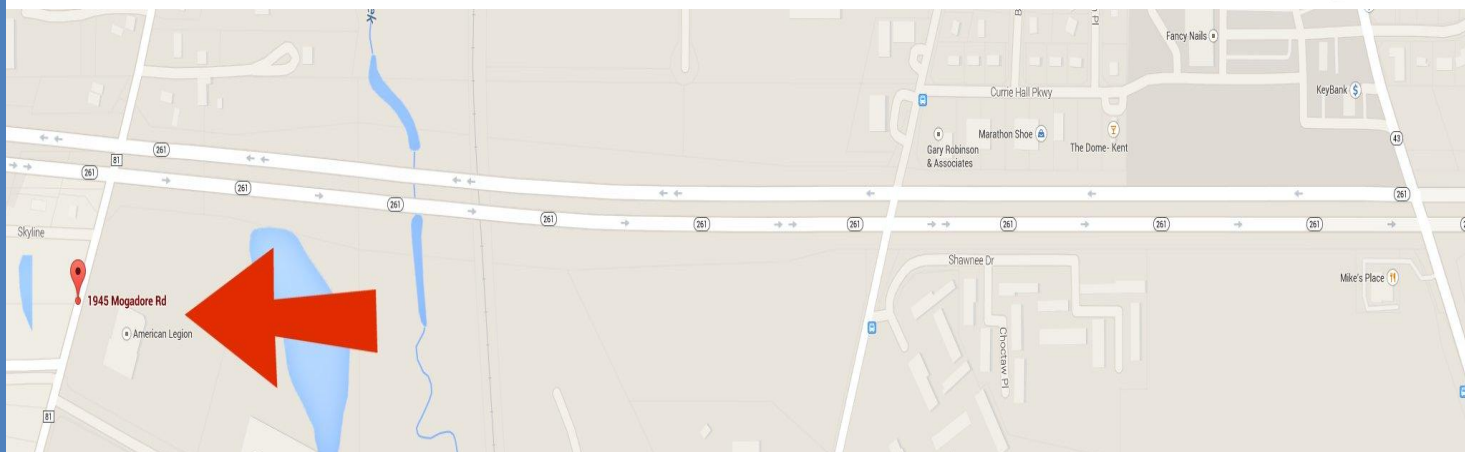
## PCARS Meetings

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 August 5<sup>th</sup> at the club site starting at 10 am.**

**Future Dates in 2023:  
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.

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## 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 sends you a link. **DOES NOT APPLY** to upgrades
- **17 years old or younger?** **ARRL will reimburse you the \$35 FCC Fee**

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## Okay - now all the Details:

- 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.
- 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).
  - **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.

- o 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 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.



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

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 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 **17 years old or younger** for tests administered under the ARRL Volunteer Examiner Coordinator (VEC) program.

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 17 years old or younger 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 17 years old or younger, regardless of the exam level taken. Proof of under 18 status is required.

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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The Federal Communications Commission (FCC) retired the [Legacy version](#) of its **CO**mmission **RE**gistration System (**CORE**S) 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/core/userLogin.do> )

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## 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.

# 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**



## Printing Your FCC License

### Print an Official or Unofficial Copy of Your Amateur Radio License

Information provided by Anthony Luscre, K8ZT

As of February 17, 2015, the **FCC no longer routinely issues paper license documents** to Amateur Radio applicants and licensees. The Commission has maintained for some time now that the official Amateur Radio license authorization is the electronic record that exists in its Universal Licensing System (ULS). The FCC will continue to provide paper license documents to all licensees who notify the Commission that they prefer to receive one.

Licensees also will be able to print out an official authorization — as well as an unofficial “reference copy” — from the ULS License Manager.

I've created a set of instructions on how you can request an “official” printed copy of your license\* [Click here to download the instructions](#)



UNITED STATES OF AMERICA  
FEDERAL COMMUNICATIONS COMMISSION  
AMATEUR RADIO LICENSE

**KE3GK**

John Q. Amateur  
123 Maple Avenue  
Anytown, State 00000

FCC Registration Number (FRN): 0000000000

Special Conditions / Endorsements

NONE

Grant Date	Effective Date	Print Date	Expiration Date
01/01/2000	01/01/2015	01/01/2000	01/01/2015

File Number	Operator Privilege	Station Privilege
0000000000	Advanced	Element

THIS LICENSE IS NOT TRANSFERABLE

*John Q. Amateur*  
(Licensee's Signature)

FCC-060 - May 2007





## 2023 COLUMBUS HAMFEST

# Electronics, Audio, Video and Computer Show

*(Proceeds are for the benefit of Aladdin Shriners Audio Unit.*

*Payments are not deductible as charitable contributions)*

**Saturday, August 5, 2023**

8:00 am – 1:00 pm

Sponsored by:

The Aladdin Shrine Audio Unit – W8FEZ

Talk-In W8FEZ 146.760 – PL 123.0

*(Doors open at 6:00am for vendor set-up)*

**SAME HUGE LOCATION!**

**INDOOR TABLES, OUTDOOR SPACES**

Located at:

**ALADDIN SHRINE CENTER**

1801 Gateway Circle

Grove City, Ohio 43123

*(Behind Tee Jayes restaurant, off of Stringtown Road at I-71)*

**DOOR PRIZES!**

*Must be present to win*

**FOOD AVAILABLE ON SITE!**

**ADMISSION**

\$5.00 at the gate  
12 and under FREE

**INDOOR TABLES**

\$10.00 per table

**OUTDOOR SPACE**

\$10.00 per space

**NO ADVANCE TICKET, TABLE, OR SPACE SALES**





# 14th Annual Mobile Cruise-In 2023

So you think that you have one of the best amateur radio mobile installations to be found? Well here is your chance to show off that mobile rig and have the opportunity to compare it to dozens of others: HF, VHF, UHF, you name it.

**Thursday, August 10, 2023, 6:00 - 8:00 pm**

The Portage County Amateur Radio Service (PCARS) will be sponsoring the **14th annual**

**Amateur Radio Mobile Cruise-In Night at the**

**A&W Restaurant - 769 East Main Street in Ravenna.**

Hams from all over Northeast Ohio will be cruising in to check out the wide variety of mobile radio setups and get some ideas for their own vehicles.

**Prizes awarded for:**

**1st Neatest Installation**

**2nd Most Bands Covered**

Enjoy an evening of ham radio fellowship and fun and get to know other hams from throughout the area.



More information contact  
Nick, AC8QG, at  
[President@portcars.org](mailto:President@portcars.org)





# Tailgate Swap Meet

**August 20, 2023**  
7AM to 12PM

## Free Entry & Tailgating

South side of the marina at Mosquito Lake State Park - 1439 State Route 305 -  
Cortland, OH 44410

N41.307198 W-80.765862

<https://goo.gl/maps/s8TAqFDZS7Rx9GWU8>



Visit [w8vtd.com/hamfest/](http://w8vtd.com/hamfest/) or [facebook.com/w8vtd](https://facebook.com/w8vtd) for the latest updates

Any questions call Andy AB8MO (234) 238-2312 or email [hamfest@w8vtd.com](mailto:hamfest@w8vtd.com)

ARRL awards QSL ARRL awards QSL card checker will be there.

Raffle tickets are \$5 each or 5 tickets for \$20 – Drawing at 11AM.

YAESU FTM-200DR winner need not be present

door prizes 9AM-11AM must be present to win

Thanks goes out to the following prize contributors:  
ARRL, BeLoud, Bioenno Power, DX Engineering, MFJ, MPD Digital, N3FJP, and Radioddity

Talk in/Directions: 146.970- (pl 100 normally off) or 443.000+ (no pl)  
mobile check in prize winner must be present





You've heard of the **Ohio QSO Party**



Well, join us at the **PCARS** club site for the

# Ohio BBQSO Party Club Picnic & Open House

Mark your calendars for **Saturday, August 26<sup>th</sup> 2023**, the date for this year's **Ohio QSO Party**. PCARS is going to put **K8BF** on the air and we are inviting all PCARS members to come on out for some special **Big Fun**.

It's a **BBQSO Party, Open House, PCARS Picnic** all rolled into one

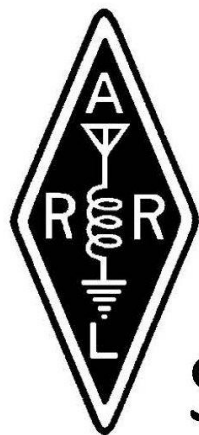
Bob, N8QE will be the chef for the  
**Ohio-BBQSO Party!**

That's right, we'll be chasing two kinds of "Q's": on the air contacts and great food fresh off the grill.

**Contest set up starts at 10 AM -  
Contest starts at Noon and ops  
will continue until midnight  
(12 hour contest)**

Burgers & Brats will be served at around 2:00 pm and **everyone is invited to bring snacks or side dishes to share**





# 2023 FINDLAY HAMFEST

Vendor set-up 6AM.  
Doors open at 8AM.

## SUNDAY, SEPTEMBER 10

Hancock County Fairgrounds  
1017 E. Sandusky St., Findlay, OH 45840

41.036717 -  
83.631166

**General Admission STILL JUST \$10**  
**\$20 Vendor Table (\$15 each additional table)**  
**Each Flea Market Space \$10**  
**\$15 Overnight Fee**

### CONTACT US:

Talk In: 147.15+ (PL 88.5)  
444.15+ (PL 88.5)

Phone: 419-423-3402

[www.findlayradioclub.org/hamfest](http://www.findlayradioclub.org/hamfest)  
[hamfest@findlayradioclub.org](mailto:hamfest@findlayradioclub.org)



Box 587 Findlay, OH 45839  
Organized in 1925

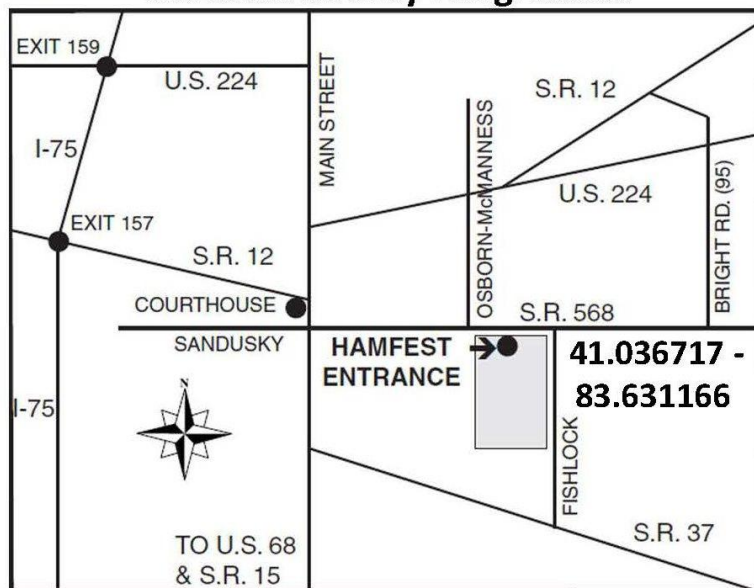
**RAIN OR SHINE**  
**FREE PARKING**



*For more  
information  
and online  
ticket sales,  
just point your  
cell phone's  
camera on this  
QR code.*



### Hancock County Fairgrounds





## 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, WA8EFK, N8SY, WB8LCD, WG8X, KD8WCK, K8CAV, K5UR, KB6NU, WA8AR, KB8UUZ, N8WCP, K3GP, K8IV, WX2R, NO8D, KA8TOA, W8PT, N8QE, KE8ARB, K8ZT, W8NET, KE8KBJ, The ARRL, The RSGB and RadCom, CQ Magazine Blog, and the World-Wide Web**

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



***Mark Your Calendars - Make your Plans NOW***

**The 16<sup>th</sup> annual Ohio State Parks On The Air (OSPOTA) Contest**  
**will be ON THE AIR - Saturday September 9, 2023**

***Ohio State Parks On The Air***



Visit **[WWW.OSPOTA.ORG](http://WWW.OSPOTA.ORG)** for all the details  
**We hope to hear you on the radio!**

# 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	
<b>President - Nick Wagner - AC8QG</b> <b>Vice President - Jim Wilson - AC8NT</b> <b>Treasurer - Greg Ash - KA8TOA</b> <b>1 Year Trustee - Tom Parkinson - KB8UUZ</b> <b>2 Year Trustee - Chuck Patellis - W8PT</b> <b>3 Year Trustee - Mike Ryan - KB8TUY</b> <b>Past President - Tom Sly - WB8LCD</b>		ARRL Awards - DXCC	<b>W8KNO</b> Joe Wehner
		Club Site Manager/Liaison	<b>K8CAV</b> Rick Kruis
		Contest Coordinator	<b>W8PT</b> Chuck Patellis
		EchoLink	<b>AC8NT</b> Jim Wilson
		Field Day Chairman, 2022	<b>WA8AR</b> Tony Romito
		FYAO Chairman	<b>W8PT</b> Chuck Patellis
		Historian	<b>KB8SZI</b> Peggy Parkinson
		K8BF Callsign Trustee	<b>N8QE</b> Bob Hajdak
		K8BF QSL Manager	<b>N8QE</b> Bob Hajdak
		Membership Chairman	
		Net Control Coordinator	<b>KA8TOA</b> Greg Ash
		Newsletter Editor	<b>KB8UUZ</b> Tom Parkinson
		OSPOTA Chairman	<b>KB8UUZ</b> Tom Parkinson
		PCARS Photographer	<b>AD8IR</b> Agnes Wagner
~ Meetings & Net ~		Public Information Officer	
<b>2nd Monday of each month. 7pm</b> <b>Thursday night Club Net at 8 pm on 146.895</b>		Secretary	<b>KE8EGF</b> Paul Hyland
		Social Media	<b>N8WCP</b> Mike Szabo
		Tech, Gen & Extra Class Mgr.	<b>AC8NT</b> Jim Wilson
		Volunteer Examiner Liaison	<b>KB8UUZ</b> Tom Parkinson
		Webmaster	<b>WG8X</b> John Myers

 <b>PCARS Volunteer Examiner Team Members</b>	<b>KB8UUZ</b>	Tom Parkinson
	<b>AC8NT</b>	Jim Wilson
	<b>AC8QG</b>	Nick Wagner
	<b>N8QE</b>	Bob Hajdak
	<b>KA8TOA</b>	Greg Ash
	<b>WA8CCU</b>	Al Nagy
	<b>N8FUM</b>	Dan Torchia
	<b>KC8JC</b>	James "JC" Wilson
	<b>W8EC</b>	Mark Haas
	<b>K8IG</b>	Fred Freer
	<b>W8HFZ</b>	Tim McLeod
	<b>K8PJW</b>	Phil Weiss
	<b>N8XTH</b>	Deron Boring
	<b>K8IV</b>	Ed Polack
	<b>N8AMY</b>	Amy Leggiero
	<b>W8PT</b>	Chuck Patellis
	<b>KP4VZ</b>	Mike Gonzalez



## THE RADIOGRAM

**PCARS Incorporated**  
Nov. 1, 2005

**First Meeting**  
Nov. 14, 2005



**ARRL Affiliation**  
April 20, 2006



**Special Service Club**  
March 22, 2010

The RADIOGRAM copyright © 2023, is the official newsletter of the Portage County Amateur Radio Service, Inc. (PCARS) - Hamvention® 2018 Club Of The Year. The RADIOGRAM is an Award Winning newsletter: **ARRL Ohio Section Newsletter - Third Place 2015, 2022 - Second Place 2014, 2016, 2020 - First Place 2012, 2013, 2017, 2018, 2019, 2021. ARRL Great Lakes Division Newsletter - Second Place 2013 - First Place in the 2017, 2020 and 2021.**

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

