



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

May 2023 - Volume 18 Number 5

HAMVENTION 2023



Get Ready FIELD DAY 2023



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 Tip - "All Pass" Filter	10
On the Road with WG8X	11
Annual Armed Forces Day Crossband Test	12
Gratitude for Youth Forum Donation	12
Wingfoot Lake Fun	13
Hamvention® Updates	14
Hamvention® 2023 Awards	15
Contest University	17
South West DX Dinner - Hamvention® 2023	18
Contest Dinner - Hamvention® 2023	19
Top Band Dinner - Hamvention® 2023	19
Field Day 2023	20
Field Day 2023 - CW Station	21
Field Day 2023 - 20 Meter Station	22
Field Day 2023 - Flex Station	23
From the ARRL	24
From CQ Magazine	29
Notes from the Treasurer	34
Activated All Ohio State Parks Award	35
Youth DX 2023 - PJ2Y	36
Pictures from the CFARC Hamfest in April	36
What is a Bus Bar on a Power System?	37
Check Out Your Copy of May QST	45

Mark Your Calendar	
Schedule of Events	5
Hamfest Calendar	27
Flex Net	28
Net Info & NCS Schedule	32
Meetings, PCARS	41
VE Test Information & News	42
General Class Test Pool Changes July 1st	45
Breeze Shooters Hamfest - June 4 th	46

Regular Departments	
Happy Birthday PCARS Members	9
PCARS IO Group	9
Coffee Cup - Limited Edition	9
Swap-N-Shop	27
SIG - DX & Contesting	29
SIG - Antennas	30
SIG - Digital	30
SIG - Portable Operations	31
SIG - Could Be Anything	31
Charlie the Tuner's HF High-Lites	33
PCARS Patches & Stickers PCARS	36
Photos from the last PCARS Meeting	38
Member Ham License Plates Wanted	40
PCARS on YouTube	40

Finals	
Found On The Internet	47
Thanks & 73	48
Still Need Some Help Here	48
Fine Print	49



Portage County Amateur Radio Service



K8BF

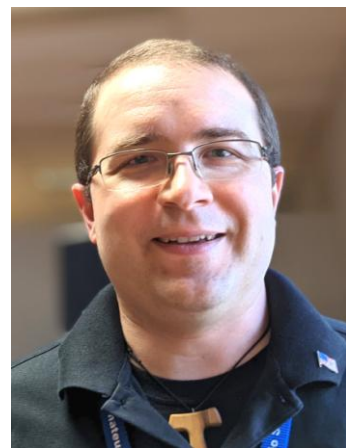


2018 Hamvention® Club of the Year

From the President



Nick, AC8QG
PCARS President



Youth Forum Donation

Thank you to everyone who contributed to our \$500 Hamvention Youth Forum donation! PCARS is once again a proud sponsor of the event, and your continued generosity made it possible.

I hope many of you will attend the Youth Forum Saturday morning at Hamvention. It's a lot of fun to learn about what young people are doing in our hobby, and your presence goes a long way in showing your support.

Hamvention Group Photo

Speaking of Hamvention... Every year we take a PCARS group photo at Hamvention on Saturday at 2:00 PM sharp. Please join us! We plan to meet in the bleachers **between Main Buildings 2 and 3**. And please, don't be late! AND be at the proper area....

If you're attending Hamvention, but can't be there for the group photo, make sure you find someone to take a few pictures of you at Hamvention so you can submit them for the newsletter.

Field Day

Field Day 2023 will be here before you know it. Our station captains and the rest of the Field Day team are hard at work preparing, but they need your help!

We need operators, of course, but we also need help with a bunch of other tasks including setup and teardown. Especially teardown! Keep reading this newsletter, and you'll find all the information about how you can help make 2023 our best Field Day yet!

Final Thought

My father-in-law once told me, "*Everyone's an expert at something*". I've come to see that everywhere I look, but it's very evident in amateur radio. We have contesting gurus, QRP aficionados (and a few QRO experts too), proficient CW operators, experienced DX hunters, Emergency Communication enthusiasts, antenna builders, rig connoisseurs, tinkerers, engineers, and so much more.

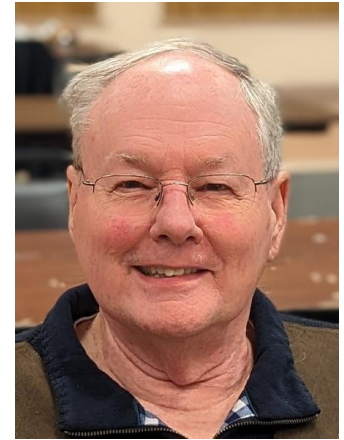
So, what's your ham radio expertise? How are you going deeper into your expertise or expanding into other specialties?



From the Vice President



Jim, AC8NT
PCARS Vice President



Monthly Meetings that have been scheduled and are in the planning:

- **May - AMSAT's Clint Bradford, K8LCS** will be discussing how hams can have more fun with current and future satellite projects.
- **June – Bob Sherwood** is going to present “Picking your next radio”

Please, if you have any suggestions for speakers, please let me know. We want to have speakers you are interested in and want to hear.

New Computers

With the help of Rick Kruis, K8CAV we have configured the Icom and Kenwood stations for operation with WSJT-X and FLDIGI. The Kenwood is now operating using its internal sound card and not the Signalink. Much easier cabling and setup. All the computers have been setup with the same configuration from a user interface standpoint. This should make contesting and regular operation much easier. Next is RTTY and some FLDIGI options setup,

Mt. Union Club Station

Spent a day at Mt. Union working out details of the station installation. Facilities Management has OK'd our antenna design and work has started on installing the antenna masts on the roof of Oak Hall. The station has a home in one of the electronics labs easily viewed through the all-glass front wall of the lab. It is a great spot. Equipment will be installed with the antenna in about 2 weeks. The club has a couple of computer science students, so with a little training the digital modes should have great support. It looks like we have both PC and Raspberry Pi systems in the shack.

Changes in the General Class Question Pool

I have been spending time updating our General Class slide decks for the changes coming in June. Some of you might be interested in what I have found as changes.

1. More questions on FT8. This was expected.
2. They added a couple of questions referencing VARA for WinLink. Commercial products have seldom been named in questions. I was surprised.
3. They added questions on intermodulation. This has been covered in the past in the Extra exam.
4. Most of the other changes were slight expansions on themes used in the current exam.

I believe anyone that has studied the current materials would still pass the new exam.

Get on the air. It's great to have the bands open and hot. Help educate the public in our great hobby/sport. Don't forget to have some “Big Fun”.



Schedule of Events



May 1st - PCARS Board Meeting at the club site & Zoom - 7 pm
 May 8th - PCARS Meeting - Kent American Legion & Zoom - 7 pm
 May 10th - PCARS Flex Net - 8 pm
 May 19-21-21 - HAMVENTION® 2023 - Greene Co. Fairgrounds, Xenia, OH
 June 3rd - VE Testing at the club site - Starts at 10 am
 June 5th - PCARS Board Meeting at the club site & Zoom - 7 pm
 June 12th - PCARS Meeting at the Kent American Legion - 7 pm
 June 14th - PCARS Flex Net - 8 pm



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

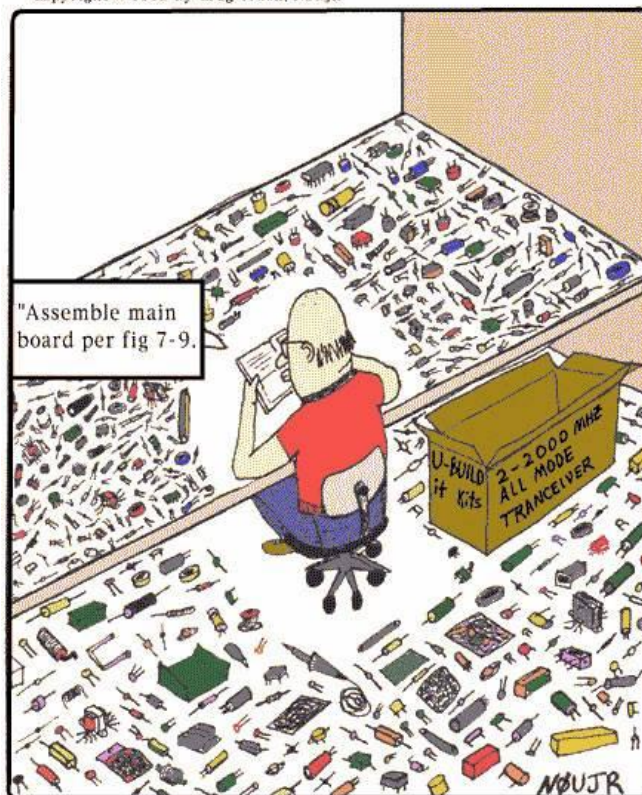
PCARS K8BF

The Club that puts the FUN in Ham Radio!

Protesting with "Resistance"



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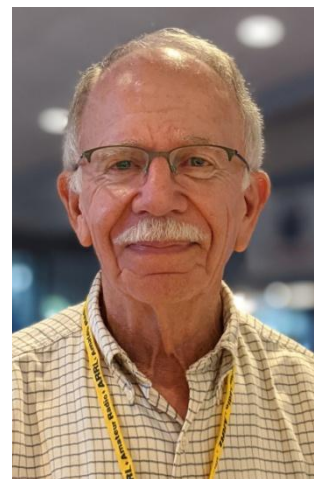


Kit fun.

From the Great Lakes Division Director



Dale, WA8EFK
ARRL Great Lakes Division Director



Greetings, welcome to "Dale's Tales" for May 2023

May brings Hamvention® and this year the ARRL Great Lakes Convention.

Our Division Hamvention booth, located again at the ARRL Expo area, will offer the opportunity for everyone to meet and greet our Division Officials and our Section Managers of Kentucky, Ohio and Michigan. Like last year, we are encouraging everyone to bring along one of your QSL cards for posting in the booth. We are doubling the size of our QSL bulletin board for 2023. Last year's QSL posting event was so successful we ran out of room! It was really interesting to see the wide variety of cards and some were from DX visitors.

Our Hamvention ARRL Member Forum will be held at 1:15 PM on Saturday and will include keynote talks from our CEO David Minster NA2AA, and President Rick Roderick K5UR. In addition, Director of Operations Bob Naumann W5OV, will cover recent updates to Radiosport and LoTW, and ARRL Treasurer John Sager WJ7S, will detail ARRL's current financial position and why we must consider a change to the dues structure. And on the really good side of the fence, the Division leadership team, your Section Managers, Director and Vice Director, will present our Great Lakes Division Young Amateur of the Year award to a very deserving amateur.

Membership Survey. ARRL Members take note, ARRL Headquarters will be conducting a membership survey the entire month of May to gather your input about how our membership can be bundled. There are about 13 questions, covering what member services you and like, the value received from your membership, your favorite parts of ham radio, what you feel to be a reasonable annual dues rate, and how our monthly publications should be distributed. The survey also includes opportunities for members to offer additional thoughts that may not adequately covered by the survey questions.

In preparation for the survey, during April, ARRL HQ asked everyone to verify their ability to access their Personal Member page on the ARRL web site to insure the survey would be accessible. Those individuals having problems are to contact HQ for assistance in getting the connectivity resolved. Following the announcement, it was found that many members had not accessed their page since the server upgrade and more stringent password requirements went into place. Over the following days, ARRL HQ received more than 1000 requests for password assistance. Be sure to check your member page access soon and call HQ if you have any questions. 860-594-0200.

Volunteers on the AIR (VOTA) has been going really well and I am having a great time giving out my 225 points as a Director. My effort has been to call "CQ VOTA" and make as many contacts as time allows. I think I surprised a few folks with the level of points they received. So if you are playing VOTA, I'll be glad to make a contact.

Look for me on the HF bands plus 6 and 2, both SSB and Digital. For complete details, including the listings for the number of contact points provided by each ARRL Volunteer, check <https://www.arrl.org/volunteers-on-the-air>. There is a Dashboard accessible that will show your current score based upon your request.

Shall we consider holding a "Great Lakes VOTA Night" where we can all get on the air and share some of our VOTA points? Let me know your thoughts. WA8EFK@ARRL.ORG.



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From the Great Lakes Division Vice Director



Scott, N8SY
ARRL Great Lakes Division Vice Director



Greetings, May 2023

Spring has sprung and it is finally May. With it comes better weather and a whole plethora of hamfests springing up everywhere!! Hamvention is less than 3 weeks away, have you gotten your reservations locked in? If you haven't, you're most likely too late to get anything closer than Columbus or Cincinnati to stay at.

Shifting gears... I'm sure by now you all have seen the ARRL membership notice about the questionnaire that has just come out. What's it all about? We want your thoughts on a number of questions that have come up over this past year that most likely will affect every ARRL member in one way or the other. Dues are always the most talked about subject, and we want your opinion on them. YES, this is your opportunity to tell us how you feel. So, take advantage of this opportunity and tell us what's on your mind in responding to the questionnaire. Be honest answering these questions on how they already have or could affect you in the future.

Shifting Gears again... Field Day is fast approaching (June 24/25). Is your club making plans to have Field Day this year? If they are, don't let them forget to get signed up on the Field Day locator <http://www.arrl.org/field-day-locator> Hey, if you can, meet with your local government officials and ask them for a Proclamation for Amateur Radio that weekend. Most local governments will be happy to do this and don't forget to invite the news media to be there as well. Amateur radio groups are encouraged to share a copy of their proclamations with ARRL via pr@arrl.org so don't be lazy, send it to them! ARRL will often share these proclamations to advance legislative efforts, creating additional support of awareness for amateur radio among lawmakers... This is great PR for everyone.

Oh, and one more thing... This isn't mentioned much but is so very important to make sure you do. Have someone assigned to take pictures!! Lots of them. Just about everyone nowadays has a phone with a camera built into it, so there's really no excuse anymore for not taking pictures, and.... send them to me at: n8sy@n8sy.com

I will be out and about again this year visiting as many of the Field Day sites as I can get to on Saturday and Sunday. There are a lot of great sites to visit and I'll do my best to try to get to yours!

Shifting gears to come into the pits... For those of you who have just gotten licensed or even those of you who have been licensed for some time now but never used your privileges, here's a really great webinar for you to sit in on... It's the 2023 Online Ham Bootcamp - <https://www.n1fd.org/>

The Nashua Area Radio Society's spring 2023 online Ham Bootcamp will be held on Saturday, May 13, from 10 AM to 6 PM Eastern Time. Access to the session will be provided via Zoom.

Ham Bootcamp includes a series of demonstrations and tutorials designed to help newly licensed Technician-, General-, and Extra-class license holders get on the air. Ham Bootcamp is also a great opportunity for hams who are interested in seeing what the hobby has to offer.

The online Ham Bootcamp program is available to all licensed and prospective amateur radio operators. You can register for the next Ham Bootcamp session at: <https://www.n1fd.org/register-ham-bootcamp/> For additional information, contact Anita Kemmerer, AB1QB, of the Nashua Area Radio Society at ab1qb@arrl.net

Whelp, that's going to do it from here this month. Stay safe and "Catch Me On The Air" and don't forget to "Catch me at the Dayton Hamvention" as well!!!

From the ARRL Ohio Section Manager



Tom, WB8LCD
ARRL Ohio Section Manager



Notes from the ARRL Ohio Section Manager

"I Hope You've Got Your Ticket To Hamvention". While not a function of the Ohio Section, those of us in the Ohio Section are certainly blessed to have one of the most iconic



Amateur Radio Events *IN THE WORLD* – right here in our own back yard! In my 50+ years as a HAM, I know that I've attended Hamvention at least 40 of those years! Of the years I didn't make it, I blame my own ignorance for not knowing what I was passing up. I'm not going to let that happen to you. I'm going to tell you, and I'm going to remind you that this is something where your attendance is required,

First off, I want to encourage you to attend all the Ohio Section Hamfests you are able to. *EVERY* Hamfest is important to all the hams in the Ohio Section. Many hamfests are the primary fund-raising activity for local clubs. Their continued existence and activities may depend upon a successful hamfest. Get out there and support those clubs! Hamfests are where a new ham might just find that piece of used gear he needs to have a successful "on air" experience. Where a ham might get that equipment sold giving him the funds to upgrade his station. Finally, where the estate of a deceased ham is sold off providing needed funds for his family. Hamfests are also where you can meet in person the voices you have only heard on the air. Friendships are made and important relationships are established. Smaller hamfests are more casual and more personal.

Hamvention is similar, but on a much larger scale. Similar, but drawing on a world-wide basis rather than just a local basis. Different in that while the flea-market has the same types of used gear, it's populated with hams from all across the country! (and the flea-market is HUGE!) Hamvention has more exhibitors who are distributors of Ham Radio products and most of the major manufacturers of Ham Radio products are there too! And Hamvention is not just the buying and selling of equipment. Clubs and organizations from around the world are there. In addition to the marketplace, there is an extensive list of forums and educational experiences you can participate in every hour the "hamfest" is open. Even when the "hamfest" is closed down for the day, the activities and festivities continue into the night with banquets and parties.

As Ohio Section Manager, I do not have the authority to require you to do any of this. But it is my job, and my personal goal, to encourage you to attend. Attend the local fests and attend Hamvention! I promise, you will benefit from both. In my years as a Ham I've had a lot of memorable experiences, and a lot of them have taken place at Hamfests! GO!

As you know, the last few months I've been encouraging you to go to your local club meetings and even visit with other clubs. Add getting on the air, working on projects, learning what you need to know to upgrade, Ham Radio is a hobby that is pretty demanding of your time. Time is all we have, we're all going to run out someday, and there are no "second chances". Have you ever heard someone say that they weren't doing anything specific, they were just "killing time"? Spoiler Alert! You cannot kill time. Time is killing YOU. Make the most of it while you have it.

One last comment on Hamvention. On Friday morning at 9:15 – I'll be presenting a forum on "Club Building" in forum room 4. I would really appreciate it if you would attend! I'll have lots of information on making *your* club, large or small, an outstanding club that will stand out in your community. Clubs are one of the most important resources we have as hams to improve ourselves in the hobby, and the clubs we belong to can either help us move forward, or set up roadblocks to our progress. Don't let your club just exist – make it outstanding!



Happy Birthday PCARS Members

PCARS members having their birthday in May:

KE8WVV Ethan
K8KSU Melanie
KE8MKY Jordan
W8PJW Paul
WA8LRW Ken

WA8UWV Doug
K8HTB Joe
WA8YFL Lloyd
K8NYM Wes
W8EZT Frank



PCARS IO Group

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

Check out the PCARS IO Group at:

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

Two things every member should do.

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



PCARS Custom Coffee Cups - Limited Edition - Almost Gone

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



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



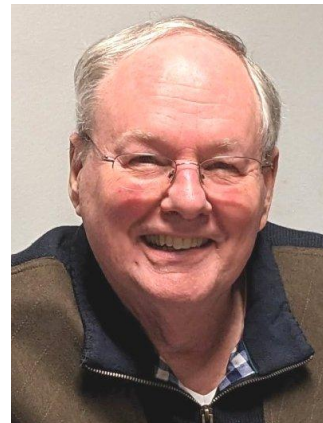
There are a **very limited number of extra coffee cups** for sale at \$5.00 each.

Contact Greg for all of the details: Treasurer@portcars.org



Tech Tips - “All Pass” Filter

Jim, AC8NT



This month's topic: All Pass Filter

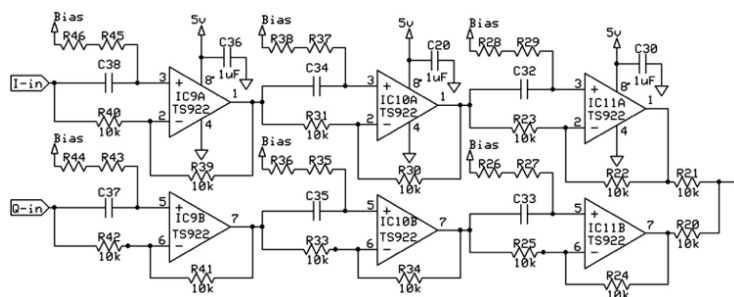
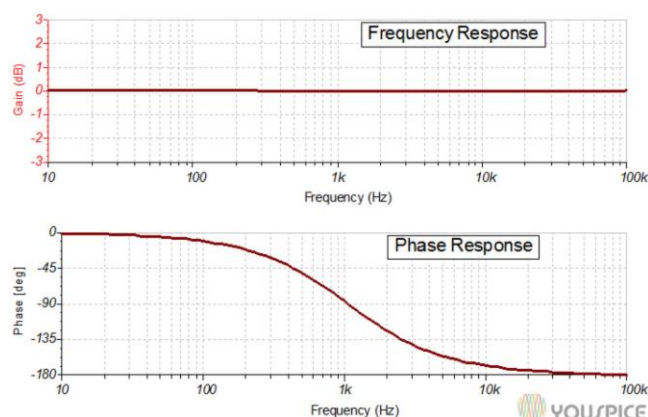
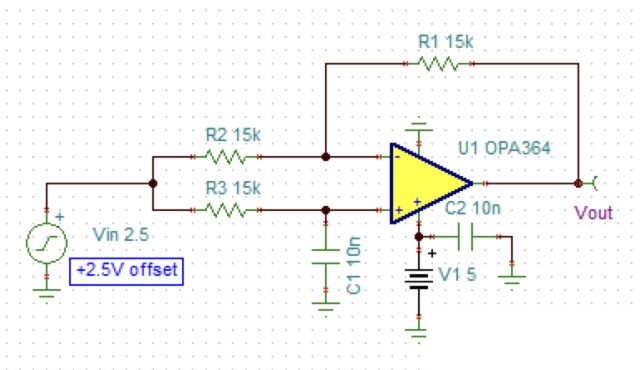
A friend was playing around with IQ demodulation and in the block diagram saw a block labeled “All Pass” filter. That threw him for a loop. He could not understand what that block did. His idea of an all-pass filter is shown.



That's right. It's a piece of wire. Flat passband and incredibly easy to design and build. He knew there had to be more to it than a wire. An all-pass filter does not affect the amplitude of the signals in the pass band, but it does change the phase.

What is it used for? Often phase shifts occur in the transmission of signals that must be corrected; and a lot of the shifts are frequency dependent. My first run-in with this filter was in correcting telecommunications circuits for phase shift in transmission lines. It is also used to fix jitter in timing signals. In ham radio the most common use is in I/Q SSB demodulators.

Below is a typical single stage all pass filter and the input and output waveform. The simulation software used is Youspice.



As you can see the output amplitude does not vary with frequency, but the phase changes over the pass band, a useful design element in many applications. Often these filters consist of multiple stages to extend frequency range. Let's look at the use of an all-pass filter in an IQ demodulator for SSB.

In an IQ demodulator, you need to phase shift the “Q” signal by 90 degrees and add it to the “I” signal. A question you might ask about this circuit: Why is there an all-pass filter in line with both the “I” and “Q” signals when we only want to phase shift the Q signal? Good question!

An all-pass filter's phase shift is frequency dependent as you can see in the plot above. The signals feeding the demodulator range from about 300 to 3000 Hz (voice). The phase shift of the all-pass would only be 90 degrees at one of those frequencies.

What if we have two filters where “Q” signal filter is simply phase shifted 90 degrees less than the “I” filter but with all other filter components the same. The phase curves (like the one shown above) would be identical in shape, but one would be 90 degrees above the other producing a constant phase shift between the two curves of 90 degrees. Remember the “Q” signal is 90 degrees out of phase with “I” at the input. The phase shift of this filter combination will put the two signals in phase where they can be added to create the output audio.

I know this may be a little confusing, but as the British would say “*Give it a good think*”. I also have a LTSpice model of this filter if you would like to simulate the output. Just let me know if you need it.

Because we are using more DSP in our equipment phase shifting the “Q” can be accomplished using a delay line and Hilbert software filter. More on that in the future.

On The Road with WG8X



John, WG8X



Still Going After Them All in Ohio

Hi everyone, thanks to the pseudo-springtime weather, I did manage a couple of mini roves in the past month; mostly associated with my travels to some “local” Hamfests. Since I’ve activated most everything in the eastern part of the state, my definition of local has been amended. I’m currently at 192 POTA references in Ohio activated, with 79 references left to go.

My first portable operation experience was Field Day, 1981. As a 20-year-old kid without a lot of ready cash, I learned to make the most of what I had. 40 years later, I have a pretty complete Go-Box, but I sometimes miss those early days.

I hang out on some groups on Facebook, and I cringe when I see operators stockpiling gear, waiting for just the perfect antenna, the right rig, battery, etc. before they head out for their first portable operation. Until recently, I didn’t know that name for that, is called “Analysis Paralysis”. If I had one piece of advice for someone who is thinking of doing portable ops, it would be “Don’t wait; just do it”. Of course, part of the fun of portable ops is learning how to overcome and adapt. You forgot your antenna? What else do you have in your go box that can be adapted for that purpose? Do you have a hardware store/home center nearby? A simple dipole that you build on site will outperform the antenna that you forgot at home.

My plans for this weekend’s Athens Hamfest had to be scrapped. Normally, I grab a cabin in the area, and head down to that area for the weekend. Unfortunately, I need to get my truck in for service, and it won’t be ready in time for a long road trip. There’s no inexpensive way to “*Adapt & Overcome*” in that instance.

I will have lots more to write about in next month’s article, since Hamvention is coming up. If you have never been to Hamvention, this is the year to attend. The flea market and vendors are great, but don’t forget some of the excellent forums that are available.

I’ll see you there. 73 DE John, WG8X



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



Annual Armed Forces Day Crossband Test



The US Department of Defense (DoD) will host this year's Armed Forces Day (AFD) Crossband Test on May 13, 2023. This annual event is open to all licensed amateur radio operators and will not impact any public or private communications. For more than 50 years, military and amateur stations have taken part in this event.

The AFD Crossband Test is a unique opportunity to test two-way communications between military communicators and radio stations in the Amateur Radio Service (ARS), as authorized in 47 CFR 97.111. These tests provide opportunities and challenges for radio operators to demonstrate individual technical skills in a tightly controlled exercise scenario.

Military stations will transmit on selected frequencies and will announce the specific ARS frequencies monitored. All of the times are Zulu (Z), and all frequencies are Upper Side Band (USB) unless otherwise noted. The frequencies used for the test will not stray outside the confines of the exercise.

A complete list of frequencies, time periods, QSL cards, and other information can be found at [DoD MARS - Armed Forces Day](#).

Armed Forces Day is celebrated on the third Saturday in May. Thanks to President Harry S. Truman, it's a day to pay special tribute to the men and women of the Armed Forces. President Truman led the effort to establish a holiday in order for citizens to unite and honor our military heroes for their patriotic service in support of the United States of America. *Armed Forces Day USA will be celebrated on Saturday, May 20, 2023*



Gratitude for Youth Forum Donation

Carole Perry, WB2MGP

Gratitude for Hamvention Youth Forum Donation

Hi, PCARS Members,

Ever since my initial visit to PCARS, several years ago, you have all held a special place of gratitude with me for all the support of our young hams. You are indeed a very SPECIAL group of dedicated hams.

I appreciate the support and invite you all to attend the Saturday morning at the Hamvention Youth forum so you can watch the "future of ham radio" give their excellent presentations.

With an attitude of gratitude, "*Thank you.*"



Wingfoot Lake Fun

John, WG8X



Our latest Portable ops field trip happened a few weeks ago, and it was well attended. This time, we rented the Buckeye shelter at **Wingfoot Lake Ohio State Park**. In POTA lingo, this is referred to as K-3516. Since Spring Support Your Parks Weekend fell on the 15th/16th of April, the choice of that date was easy.



Officially, the event was scheduled for 11am -3 pm, but we had stations show up as early as 9 AM to set up and get on the air. K8BF was well represented that day.

We also had representatives from a couple of other radio clubs stop by to visit and check out the event. Of course, I doubt that anyone went away hungry. We had a great array of goodies to keep everyone fed.

The one question I've heard a couple times is "**When are we doing this again?**" Well, the next Support Your Parks weekend is coming up on **July 15th/16th**. Stay tuned for upcoming plans. Thanks everyone for your support and interest.



Jim, AB8YK

Hamvention General Chairman



HAMVENTION UPDATES

The countdown is approaching zero! The 2023 Dayton Hamvention® is almost here. Only days left until the big event. The ARRL app is almost ready and might be by the time this is published. Check it out. Also, the Hamvention.org website has been updated with Forums, Vendors both inside and Flea Market. This year's event looks to be bigger than ever with both Inside and Flea Market booth spaces nearing capacity.

Ticket sales have been brisk and running ahead of last year.

A few vendors, such as Kenwood and ESL Electronics, are back along with our normal large vendors such as DX Engineering, ICOM, Yaesu, R&L Electronics, MFJ Enterprises, Elecraft, and Gigaparts, to name a few. Of course, I am sure that I have not mentioned all and no slight is intended. Be sure to invite your friends and visit all the vendors both Inside and Flea Market. I am positive you can find that boat anchor or item you have been looking for.



A new feature this year is our “Hungry Ham Haulers” local restaurant bus loop. From 10 a.m.-3 p.m. Friday and Saturday, you can escape the hustle and bustle with a meal at a restaurant. Of course, we will have our normal great food at the show. This expands the offerings and partners us with the community.

A huge thanks to the 70+ Chairs/Assistant Chairs/Co-Chairs who have toiled for months preparing for the event. Another huge thanks to the over 700 volunteers

that will work the show to make it a success.

Looking forward to May 19-21 when we show the world Amateur Radio at its finest.



Hamvention® 2023 - Awards

Michael, W8CI
Hamvention Awards Chairman



**The Hamvention Awards committee is delighted to announce the
2023 Hamvention® award winners.
Please join us in congratulating these outstanding Amateurs.**

Amateur Radio Club of the Year

The Delaware Valley Radio Association (DVRA), an ARRL affiliated club formed in 1930, serves the Trenton, New Jersey metropolitan area. The club has tripled in size over the last six years due to the wide range of amateur radio activities and events they offer. An all-purpose club, the DVRA's activities include public service events, operator training/mentoring, Scouting events, informational monthly meetings, POTA events, and the operation of a world class club station.

The DVRA center of activity is club station W2ZQ, which operates a regular schedule. The station was renovated six years ago and currently houses two complete HF stations, a VHF repeater, an APRS digipeater and a WinLink VHF-RMS node. The recent addition of 1296 MHz EME capability has been optimized with the assistance of member Joe Taylor (K1JT). Station activities include an open house, hands-on seminars, contesting, and special event activations. Most importantly, the exchange of ideas that occurs within the walls of the building is priceless.

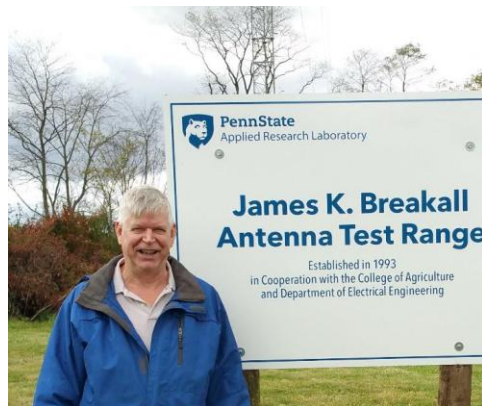


The DVRA's focus on training and its diversification of projects attract new and prospective hams and engage radio amateurs at all levels and with widely varying interests.

Technical Achievement Award

Dr. James Breakall's work has been instrumental in amateur radio antenna technology development for decades. He has teamed with many experts in the field to develop state of the art advancements with a wide range of applications, including the Numerical Electromagnetic Code (NEC). As a professor of electrical engineering at Penn State University from 1989 to 2022, Dr. Breakall (WA3FET) developed cutting edge antenna technology and mentored his students in amateur radio, resulting in 700 new licensees. Now a retired Professor Emeritus, he serves as a consultant to the Army, Air Force and Navy on many antennas related projects.

Nittany Scientific, a company initiated with his students, developed some of the first optimization methods applied to NEC in a package called NECOPT, a design he called Optimized Wideband Antenna (OWA) Yagi. The optimization had the goals of minimum peak SWR in a band, maximizing the lowest gain in a band, and maximizing the minimum front-to-back ratio in the band. These OWA Yagi designs have been used in numerous contest and DX stations around the world. Because he wanted this technology to be



readily available worldwide, he has never pursued patent licensing. He also was the first to use helicopter measurements and Geometrical Theory of Diffraction (GTD) techniques for antennas in terrain at HF that led to software such as TA and HFTA.

In 2010, Dr. Breakall in conjunction with Joe Taylor (K1JT), Angel Vazquez (WP3R) and Pedro Piza, Jr. (NP4A) collaborated to use the Arecibo 1000 ft. dish to do moonbounce (EME). He worked on many antenna designs at Arecibo Observatory in Puerto Rico and at the HAARP facility in Alaska. Dr. Breakall has been a frequent forum presenter at Hamvention sharing his expertise on antenna design and enthusiasm for amateur radio.

As an avid amateur radio contester, Dr. Breakall has built contest stations in Pennsylvania and Puerto Rico and participated in over 100 contests, winning a fair amount of them. Dr. Breakall has authored numerous peer-reviewed scientific articles and books.

Amateur of the Year 2023

Carsten Dauer (DM9EE) has been active in European amateur radio through WRTC and YOTA for 30 years. Recently, he has spearheaded DM9EE-Helping Hands, a movement to provide amateur radio equipment to war torn Ukraine by collecting donations and delivering them personally to communities in Ukraine. Approximately 5000 kg of radios, power banks, solar packs, and first aid have been shipped to Ukraine along with the donation of countless hours of planning, packing, documentation, and accessing permits have gone into this endeavor. On the return trip from Ukraine Carsten transports war refugees to havens in Germany, including his own hotel. Supporting amateur radio friends and inspiring youth involvement is Carsten's passion. On his website <https://dm9ee.de/dm9ee-ukraine-help/>, he states, "Ham radio gave me a lot and I try to give back to our great hobby. The world is very small when you have a radio license. You talk to the world, and eventually you also visit people in other countries... and you always learn more about culture, when you know people there. Ham radio is great to learn languages, even if it is only a few friendly phrases."



Contest University - 2023

Contest University

Tim, K3LR
Contest University Chairman



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

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

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

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

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

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

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

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

See you in Dayton at CTU 2023 !!

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



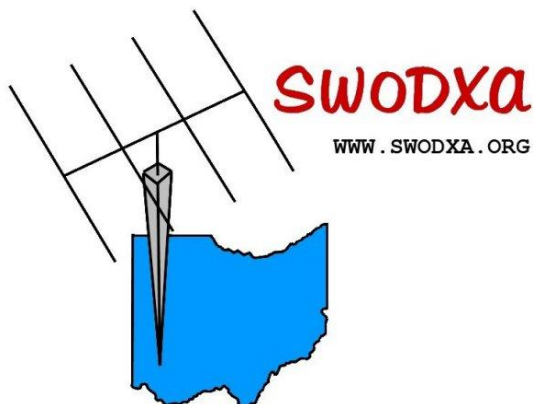
South West DX Dinner - Hamvention® 2023

Bill, AJ8B

South West Ohio DX Association



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



SouthWest Ohio DX Association

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

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

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

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

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



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

Contest Dinner - Hamvention® 2023

Contest Dinner

29th Annual Dayton Contest Dinner is May 20, 2023

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

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

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

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



Top Band Dinner - Hamvention® 2023



Tim, K3LR
Top Band Dinner Chairman

Annual Dayton TopBand dinner

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

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

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

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

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



Field Day 2023



Tony, WA8AR
Field Day Chairman



I hope ever one is ready and looking forward to Field Day 2023 (June 24th and June 25th)! Last Year was a good time and was also successful. As most of you know, K8BF again placed 2ND in the nation in class 4A, 1ST in Ohio and 1ST in our Section. That result was achieved thanks to a large number of our fellow members volunteering to pitch in and help with all aspects of our Field Day planning, preparation and operations. However, AGAIN, this year we are shooting to better our score and take PCARS to first place in the nation in our operating class! I believe that we have learned a lot from the past, so that we WILL fine tune our Field Day practices to enhance our score and bring home a National 1st place finish for PCARS. To that end we still need operators and volunteers to assist with setup before FD and teardown afterwards:

Operators Needed

The 20 meter station has a number of slots open for the overnight hours. This year the 20 meter station will setup to operate voice and digital modes on both 20 meters and 80 meters (nighttime). The decision to switch to 80m at night will depend on propagation. If you are interested please contact Mike N8WCP. Nighttime operations at this station are a crucial piece of our strategy to win BIG this year.

The Flex station also still needs operators for several slots. The Flex Station is designed for operation on multiple bands between 80 meters and 10 meters; able to use voice and digital modes, with the primary emphasis on digital modes. For more information please contact Rick K8CAV. A good performance by the Flex station is another crucial piece to our success this year.

The GOTA Station can only be operated persons that were licensed since the previous year's Field Day OR may be operated by any generally inactive licensee. ALSO, non-licensed persons may also participate (Get ON The Air) under the direct supervision of a licensed control operator (basically any interested person can show up, with no experience and make contacts as if they were licensed). Anyone interested should contact Jim AC8NT.

Volunteers Needed for Setup/Tear Down

As we have done in recent years I will need **at least 14 volunteers** to assist the Field Day team with Setup and Tear down of antennas and stringing power cables from the main generator to stations. If you have done this before, great, but you do not need any experience to volunteer. The Captain for each station will direct all work for their station. If you are a new Ham this is a great opportunity to get hands-on experience putting up a variety of antennas. Setup has normally been completed in about 2 to 3 hours (more or less). Teardown after Field Day has been done in less than 2 hours. If you cannot volunteer for both, no problem, just let me know which task(s) you are volunteering for (Tony WA8AR tronto99@gmail.com). The Club will supply coffee and water plus pizza for lunch(s).

Here are the Field Day setup/teardown schedules:

Prior to Field Day, a detailed **Safety Plan** will be distributed to all volunteers. Each Volunteer must read and be familiar with the safety plan. Each Volunteer must sign, date and return a copy of the plan to the Safety Officer. Distribution of the safety plan will be accomplished at least three weeks prior to FD.

SETUP Saturday June 24

8:30am Arrive on site (meet at the picnic shelter of the Freedom Township Park) PLEASE BE PROMPT
8:40am Assignment of work tasks
8:45am Begin Work
12:30pm Antennas up and ready for testing; power cables strung and energized [Pizza Lunch]
2.00pm Field Day Stations On-The-Air

TEARDOWN Sunday June 25

2:00pm Stations Off-The-Air Work begins immediately [Pizza Lunch served before 2:00]

3:30pm All antennas down and stowed for transport. Power cables coiled up. Field Day over and done.

The only equipment the volunteers need to bring are gloves and safety glasses (**REQUIRED**). Steel toe shoes are always a good idea. Rain gear is essential (just in case). If shoes/boots are not waterproof an extra pair of dry shoes and socks are a good idea. The club will supply a dozen basic hardhats, but I encourage you to bring your own hardhat if you own one. **Hardhats must be worn** whenever you are working in an area where there is any equipment (antenna components) or any hardware above your head. Remember that even a medium size bolt falling from 25 or 30 feet can cause serious injuries (or worse).

To volunteer for the PCARS Field Day Setup/Teardown crew just send an email to me at tromito99@gmail.com, Specify if you are volunteering for Setup, Teardown or Both as soon as you can. I will confirm by email.

Come out and help make 2023 another successful PCARS Field Day! Email me with any questions.

Field Day 2023 - CW Station



George, K3GP
CW Station Captain



Again this year, we will be operating CW from the comfort of a dedicated, enclosed trailer - shielded from the sun and inclement weather.

We anticipate either a 3 or 4 hour shift per operator, depending on the number of volunteers.

Please let me know if you care to join us so that I can firm up and finish the schedule.
Mobile: 330-495-9123 or email: rttyfan@gmail.com

DAY	UTC	LOCAL TIME	OPERATOR
SAT 24 TH	1800 - 2100	2 PM - 5 PM	WB9LBI *
SAT 24 TH	2100 - 0000	5 PM - 8 PM	N8NB **
SAT 24 TH	0000 - 0300	8 PM - 11 PM	K3GP *
SAT 24 TH	0300 - 0500	11 PM - 2 AM	K8RR **
SUN 25 TH	0500 - 0800	2 AM - 5 AM	-- OPEN --
SUN 25 TH	0800 - 1200	5 AM - 8 AM	W8BBQ *
SUN 25 TH	1200 - 1600	8 AM - 12 PM	K8FF **
SUN 25 TH	1600 - 1800	12 PM - 2PM	N8QE **

* = Tentative, subject to change ** = Confirmed



Field Day 2023 - 20 Meter Station



Mike, N8WCP
20 Meter Station Captain



Calling all Ops!

Whether you're new to HF or a seasoned pro, we need your skills at the 20M station.

Here's an opportunity to make some contacts, enjoy the camaraderie of fellow members, and have a fun time on the radio. What could be better?

If interested or have questions, send me an email at n8wcp.us@gmail.com.

DAY	UTC	LOCAL TIME	OPERATOR
SAT 24 TH	1800 - 2000	2:00P - 4:00P	Bob, N8QE
SAT 24 TH	2000 - 2200	4:00P - 6:00P	Chuck, W8PT
SAT 24 TH	2200 - 0000	6:00P - 8:00P	Mike, N8WCP
SAT 24 TH	0000 - 0200	8:00P - 10:00P	Greg, KA8TOA
SAT 24 TH	0200 - 0400	10:00P - 12:00A	Ben, AD8FQ & Agnes, AD8IR
SUN 25 TH	0400 - 0600	12:00A - 2:00A	-- OPEN --
SUN 25 TH	0600 - 0800	2:00A - 4:00A	-- OPEN --
SUN 25 TH	0800 - 1000	4:00A - 6:00A	-- OPEN --
SUN 25 TH	1000 - 1200	6:00A - 8:00A	-- OPEN --
SUN 25 TH	1200 - 1400	8:00A - 10:00A	Bob, N8QE
SUN 25 TH	1400 - 1600	10:00A - 12:00P	Chuck, W8PT
SUN 25 TH	1600 - 1800	12:00P - 2:00P	Mike, N8WCP



Field Day 2023 - Flex Station



Rick, K8CAV
Flex Station Captain



2023 PCARS Flex Station

We are closing in on PCARS kicking off its 2023 Field Day at Freedom Township Park, and the Flex Station is ready to make its contribution! As you can see from the schedule, we are now fully staffed for the entire 24 hour period. A couple of our operators added a second shift to complete the schedule so if you did want to operate but haven't notified me, now is the time to drop me an email at k8cav.coms@gmail.com

and I'll see if we can get you fit into the schedule. A huge thank you to everyone that has volunteered to staff Flex! Below are some important dates that training is scheduled for Field Day:

- **Tuesday May 2nd 7:00 PM at the PCARS Club Site, Digital SIG, presentation by Ken WA8LRW** on using FT4 and FT8 in contesting mode for Field Day. Ken has put together an excellent presentation covering all aspects of FT4 and FT8 during Field Day and I highly recommend anyone that intends to use these modes at Field Day attend this meeting
- **Wednesday May 10th 8:00 PM, special session of the month PCARS Flex Net, 50.50 MHz USB,** net will open in phone to take the role then transition to FT4 in Field Day contest mode, see Flex Net article in this newsletter for details
- **Wednesday May 17th 7:00 PM at the PCARS Club Site, IC-7300 training** for those unfamiliar with this radio that will be used at Flex, 20 m Phone, and VHF stations

The Flex Station will start setup at the Freedom Township Park on June 24th at 8:00 AM. I'd like to have a team of 4 to 6 people to help out. We'll also need a team of the same size to help tear down on Sunday June 25th at 2:00 PM. If you're available for either or both, please let me know at k8cav.coms@gmail.com

I'm looking forward to a record PCARS Field Day at the Flex Station this year! With your help, I know we can set a record and I'm looking forward to seeing you there.

DAY	LOCAL TIME	Mode	OPERATOR(S)
SAT 24 TH	2:00P - 4:00P	10M, 15M PH, DIG or CW; 20M DIG *	Jim, AC8NT & JC, KC8JC
SAT 24 TH	4:00P - 6:00P	10M, 15M PH, DIG or CW; 20M DIG *	Bob, N8QE
SAT 24 TH	6:00P - 8:00P	10M, 15M PH, DIG or CW; 20M DIG *	Ken, WA8LRW
SAT 24 TH	8:00P - 10:00P	80M PH, CW, or DIG	Ken, WA8LRW
SAT 24 TH	10:00P - 12:00A	80M PH, CW, or DIG	Gene, W8NET & John, KE8MXR
SUN 25 TH	12:00A - 2:00A	80M PH, CW, or DIG	Rick, KD8WCK & Mara, KE8KBJ
SUN 25 TH	2:00A - 4:00A	80M PH, CW, or DIG	Rick, KD8WCK & Mara, KE8KBJ
SUN 25 TH	4:00A - 6:00A	80M PH, CW, or DIG	Mike, KP4VZ
SUN 25 TH	6:00A - 8:00A	80M PH, CW, or DIG	Gene, W8NET & John, KE8MXR
SUN 25 TH	8:00A - 10:00A	10M, 15M PH, DIG or CW; 20M DIG *	Andrew, KE8BWA
SUN 25 TH	10:00A - 12:00P	10M, 15M PH, DIG or CW; 20M DIG *	Bob, N8QE
n8qe	12:00P - 2:00P	10M, 15M PH, DIG or CW; 20M DIG *	Agnes, AD8IR

FLEX & CW to cooperate on 20M & 40M so both are not on the same band at the same time; CW has band priority on 20M & 40M; FLEX has band priority on 80M

* If 10M and/or 15M is open make QSO's using PH, CW, or DIG, otherwise use the 20M or 40M band DIG as indicated for that time slot.





Making a Big Decision -- Together

This Monday, May 1, ARRL will launch a survey for members, encouraging their participation as we consider a dues increase.

The survey will include some short questions about raising dues and modifying the way some membership benefits are bundled. The survey will also include an opportunity for members to share their feedback.

The participation of every member is important. Please encourage all the ARRL members in your radio club to complete the survey in May.

The survey will open on May 1 at www.arrl.org/take-dues-survey. This is a member-only page. Members need to be logged into the ARRL website to take the survey. Members who are not logged in may select the Login button on the top of the web page, and they will be prompted to enter their ARRL website username and password. If they have not logged in since April 2022, they should use these [Login Instructions](#).

Thank you in advance for urging all ARRL members to complete the survey.

Mike Walters, W8ZY
ARRL Field Services Manager

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Time to Get Ready for Field Day

ARRL Field Day is just over two months away, but like spring cleaning, it pays to start getting ready now.

2023 Field Day will be held June 24 - 25. It is ham radio's open house. Every June, hams throughout North America set up temporary transmitting stations in public places to demonstrate ham radio's science, skill and service to communities and the nation. It combines public service, emergency preparedness, community outreach, and technical skills all in a single event. Some participants may also choose to operate from home, using the exercise to develop and practice their personal radio communications capability.



Field Day has been an annual event since 1933 and remains the most popular event in ham radio. In 2022, 4,929 entries were submitted (including check logs), and there was a total of 29,679 reported participants.

Field Day is open to all amateurs in the areas covered by the ARRL/RAC Field Organizations and countries within IARU Region 2. DX stations residing in other regions may be contacted for credit and may submit entries as check logs.

The main focus of Field Day is to work as many stations as possible on the 160-, 80-, 40-, 20-, 15-, and 10-meter HF bands, all bands on 50 MHz and above, and to learn to operate in abnormal situations in less-than-optimal conditions. A premium is placed on developing skills to meet the challenges of emergency preparedness and acquaint the general public with the capabilities of amateur radio.

For Field Day 2023, several rules changes have been made. It's a good idea to make sure that your logging software has been updated to the most current version to incorporate these rule changes including the updated Canadian sections list. There are many facets to operating on Field Day and knowing the rules and keeping good logs are paramount to successful contacts.

Many local amateur radio clubs participate in ARRL Field Day. To start preparing for Field Day, check out arrrl.org/field-day for the official rules and all the information you'll need. To find a participating radio club in your area, use the Field Day Locator on the page.

Announcements

The Lewis and Clark Trail on the Air special event commemorates the historic path the explorers took on their trek across the Midwest. The trail covers 4,900 miles and 16 states. This includes the disembarkation from Camp Dubois and what is referred to as the [Eastern Legacy](#). The event is sponsored by the [Clark County Amateur Radio Club](#), with support and participation from other clubs in all 16 states along the historic trail. The 2023 event will run 24 hours per day beginning June 3 and continuing through June 18 (June 2, 5:00 PM Pacific Time to June 18, 5:00 PM Pacific Time). The rules are simple: contact one club in each of the 16 states on the historic Lewis and Clark Trail. Operating modes include SSB phone, FM phone, CW, and FT8. Any combination of modes used to work all 16 states is allowed. The on-air exchange will include the call sign and name of the operator. Additional information, such as a signal report or a Parks on the Air park designation, may also be logged but is not required. Additional information can be found at [Lewis & Clark Trail on the Air \(lctota.org\)](#).

Canadian amateur radio operators will be able to participate in a special event honoring the coronation of His Majesty King Charles III. The coronation takes place on May 6, 2023, and the special event runs from **May 5 to July 2**. Operators will be able to use special event call sign prefixes. Innovation, Science and Economic Development Canada (ISED) has approved the special call signs, which will correspond to the early summer operating season. All Canadian amateurs can use the special event call sign prefixes for all occasions, including Field Day and the Radio Amateurs of Canada Day Contest. More information about the special event call signs is available [here](#). Additional information about the coronation can be found at [King Charles: When is the coronation and what do we know about it? - BBC News](#).

ARRL Advocates for Radio Amateurs as FCC Proposes Changes to 60-Meter Band The Federal Communications Commission (FCC) is seeking comments about changing the secondary allocation available to radio amateurs on 60 meters. The FCC issued a Notice of Proposed Rulemaking (NPRM) on April 21, 2023, that deals with the band. In a prior petition, [ARRL The National Association for Amateur Radio®](#) urged protecting the existing use of the band by amateurs when adding a new allocation adopted internationally.

Currently, radio amateurs in the US have access to five discrete channels on a secondary basis: 5332 kHz, 5348 kHz, 5358.5 kHz, 5373 kHz, and 5405 kHz. Users of these channels are limited to an effective radiated power (ERP) of 100 W PEP.

The FCC proposes to allocate 15 kHz of contiguous bandwidth between 5351.5 - 5366.5 kHz on a secondary basis with a maximum power of 15 W EIRP (equivalent to 9.15 W ERP). This allocation was adopted at the 2015 World Radiocommunication Conference (WRC-15).

The federal government is the primary user of the 5 MHz spectrum. The government's manager of spectrum use, the National Telecommunications and Information Administration (NTIA), has expressed support for implementing the allocation as adopted at WRC-15. Doing so would result in amateurs losing access to four of the five discrete channels, and power limits would be reduced from 100 W ERP to 9.15 W ERP. However, it would provide access to a new contiguous 15 kHz band that includes one of the current five channels.

In 2017, [ARRL petitioned the FCC](#) to keep the four 60-meter channels that fall outside the new band, as well as the current operating rules, including the 100 W PEP ERP limit.

The ARRL petition stated, "Such implementation will allow radio amateurs engaged in emergency and disaster relief communications, and especially those between the United States and the Caribbean basin, to more reliably, more flexibly, and more capably conduct those communications."

ARRL said that years of amateur radio experience using the five discrete channels have shown that amateurs can coexist with primary users at 5 MHz while complying with the regulations established for their use. The petition also stated, "Neither ARRL, nor, apparently, NTIA, is aware of a single reported instance of interference to a federal user by a radio amateur operating at 5 MHz to date."





In [the NPRM](#), the FCC recognizes that Canada has already adopted 60-meter allocations and related rules that align with those proposed by ARRL. The Commission wrote, "Finally, we note that Canada has essentially implemented the same rules as ARRL has requested." The FCC proposed to allocate the 15 kHz bandwidth, but stopped short of making a proposal on whether the existing channels should remain allocated to amateur radio and what the power limitations should be. They requested comments on their proposal and the related channel and power issues.

Comments will be due 60 days after the NPRM is published in the Federal Register, which is expected within the next two weeks.

National Voice of America Museum of Broadcasting Open during 2023 Hamvention®

The National Voice of America Museum of Broadcasting, in conjunction with the West Chester Amateur Radio Association, announced their expanded hours during the 2023 Dayton Hamvention®.

The museum will be open Thursday, May 18, from 1:00 PM to 9:00 PM; Friday, May 19, from 1:00 PM to 9:00 PM; Saturday, May 20, from 12:00 PM to 9:00 PM, and Sunday, May 21, from 12:00 PM to 5:00 PM.

Admission is \$10.00 at the door. The West Chester Amateur Radio Association, WC8VOA, will be on the air. The museum is a short drive from Hamvention, down Interstate 75 or Route 42 from Xenia. Use the Crosley Blvd address on your GPS.

New exhibits include a dedicated room for amateur radio and shortwave equipment and a newly renovated ham shack with state-of-the-art equipment from Yaesu, Icom, and Elecraft. Docents and operators will be available to enhance visits to the museum.

For further information, visit voamuseum.org or wc8voa.org. You can also find the museum on Facebook or call 513-777-0027. The museum's regular hours are Saturdays and Sundays from 1:00 PM to 4:00 PM, and it is located at 8070 Tylersville Road, West Chester, Ohio.



Almost 6 years after the [FT8 Digital Mode Club](#) was founded in 2017, club members were asking why there were no diplomas for the FT4 operating mode. After examining the issues carefully, club founders Jo Engelbrecht, OE6VIE, and Hannes Gruensteidl, OE1SGU, arrived at a solution: founding a new club. On March 17, 2023, the FT4DMC was launched. The aims of the club are promoting radio operations in FT4, creating incentives to use this mode of operation with a moderate number of available diplomas, and increasing activity on the amateur radio bands. There are currently 17 different diplomas, with more to come. Membership in the FT4DMC is free and open to all interested parties. FT4 is becoming more popular, and many DXpeditions use this type of transmission and distribute additional band points. FT4 was developed by Dr. Joe Taylor, K1JT. Contacts in this mode count for the same amount as all other digital broadcast types for the ARRL Digital (RTTY) DXCC award. The original idea was to use only FT4 for contests. With about 2.5 times the speed of FT8, FT4 is efficient, and the level of interest is terrific. In just under three weeks, the FT4DMC already has more than 1,300 members and the first diplomas have been awarded. As with the FT8DMC, the application for issuing the diplomas takes place via the program developed by Heinz Urban, DK5UR, which is used by nine clubs. The FT8DMC now has 21,600 members from 148 DXCC entities. More than 1.5 million diplomas have been issued. Every new member receives a membership certificate and new members are welcome. Additional information is available at: FT4DMC: <https://ft4dmc.com/> FT8DMC: <https://ft8dmc.eu/>



FOR SALE: Yaesu FT-2000 Transceiver with FH-2 Remote Control Keypad. With original box, manual, & power cord, \$1000.00. **Heathkit SB-200** Amplifier with newer 572B Tubes, \$500. **MFJ-976 1.5 KW Antenna Tuner**, \$250. **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 cleanup my shack.*

Contact: Bob, N8QE at rhajdak@aol.com [08/23]

FOR SALE: WEST MOUNTAIN RADIO PWRCrimp Crimp tool for 15, 30 and 45 amp powerpole connectors. Like new, in factory box, with instructions. \$20.00 **YAESU FT1000MP transceiver** Good Condition, has optional roofing filter and optional SSB and CW filters, operating manual \$550.00 *Items can be picked up in Alliance -OR- I can deliver at a PCARS meeting*

Contact: George K3GP at 330-495-9123 or email: rttyfan@gmail.com [06/23]

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

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

For Sale 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: [08/23] indicates the ad will run until the end of July 2023.

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.



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

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

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

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>

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 - Website: <http://www.hac.org>

Rick, K8CAV
Flex Net Coordinator



Next FLEX Net will be Wednesday May 10th at 8:00 PM

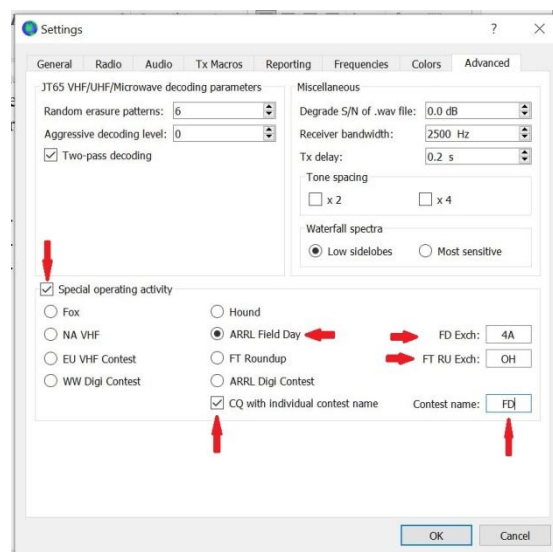
The next PCARS monthly Flex net will be a “Special Edition” net to take place on Wednesday May 10th at 8:00 PM. The net will take place on 6 meters, 50.700 MHz, USB.

This purpose of this special edition net will be to familiarize operators in the FT4 and FT8 digital modes that will be used at the Flex Station, the 20 meter station, and the VHF station during Field Day.

The net will open on 50.700 MHz in phone, to take check-ins. Once check-ins have been taken, two designated stations will transition to FT4 in the Field Day contest mode and call CQ. All other stations will answer the CQ using FT4 in the Field Day contest mode. Once all stations have completed contacts with the CQ stations and at the direction of NCS and time permitting, those stations who wish to can transition to calling CQ. Remember, you must have your WSJT-X program set for Field Day Contest mode, see graphic below. NCS may make periodic transitions to phone (voice) to clarify net operations and answer questions, change modes, or any other required net operations.

To put your WSJT-X in Field Day contest mode, do the following:

- In the main window of WSJT-X (latest release 2.6.1), click on **File** then click on **Settings...**
- Click on the **Advanced** tab to bring up the window shown below
- In the Advanced tab window,
 - o check mark the **Special operating activity** box
 - o click on the button next to **ARRL Field Day**
 - o put your Field Day Exchange (4A in the case of PCARS) in the **FD Exch:** box
 - o put your Field Day Section (OH in the case of PCARS) in the **FD RU Exch:** box
 - o check mark the **CQ with individual contest name** box*
 - o Enter **FD** in the **Contest name:** box*
 - o * These last two steps may need to be deleted, more information to follow



Anyone planning to operate FT4 or FT8 during PCARS Field Day is encouraged to participate in this net to get an idea of what things will look like during PCARS Field Day. I hope to hear you then!



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



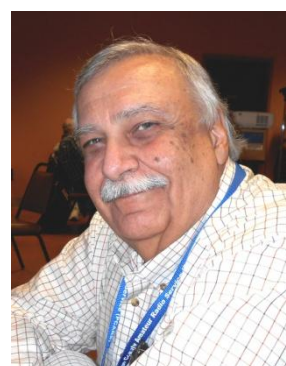
Nominations Open for Young Ham of the Year

Do you know a young radio amateur, age 18 or younger, who is doing extraordinary things for his/her community or for amateur radio? If so, the Amateur Radio Newline Bill Pasternak Young Ham of the Year Award committee wants to hear from you. Nominations for the 2023 YHOTY award are being accepted through May 31. For more information and nominating forms, visit <arnewline.org> and click on the YHOTY tab. CQ is a corporate sponsor of the Young Ham of the Year award.



DX & Contesting Special Interest Group

Chuck, W8PT
DX & Contesting SIG Coordinator



Next SIG will be Tuesday May 23rd at 7:00 PM

Greetings to all PCARS DXers and Contesters:

We held our monthly DX/Contesting Special Interest Group meeting on Tuesday, April 25th. The usual suspects showed up and I thank them for their attendance. We reviewed the pertinent rules for the Florida QSO Party which took place the last weekend of April. I will report on the contest efforts from K8BF next month.

We finally were able to view a video presentation given at a February SWODXA meeting, by Randy, ND0C, "*QRP DXing and Contesting*". We had tried to see this on previous occasions, but Murphy kept getting in the way.

This was a very informative presentation on the "*HOW TOs*" of using QRP and successfully operating in contests and hunting for DX. Randy has been QRPing exclusively for 42 years and at present is at 322 CONFIRMED DX entities. That's going some when you understand that he works both CW and SSB at no more than 5 watts out, regardless of which mode he is working. By the way - he does not do any digital.

Again, an excellent presentation and one we may want Randy to do live for a monthly meeting. So until next month, 73 and Gud DX.

Can't be there in person? Then join us in the Zoom Meeting:
<https://us02web.zoom.us/j/87220356586?pwd=czgvLzRPejVBT2hPSkVIZU1VaU84Zz09>
Meeting ID: 872 2035 6586
Passcode: PCARS2022



Antenna Special Interest Group

Bob, N8QE
Antenna SIG Coordinator



Next SIG will be Tuesday May 16th at 7:00 PM

The next meeting of the PCARS Antenna Special Interest Group will be held May 16, 2023 at 7:00 PM. We will be in-person at the PCARS club site and on Zoom.

At the April Antenna SIG meeting newly licensed Ethan, KE8WVV presented his new 10 meter dipole design, David, KE8QEP presented his Arduino sequencer band controller design, and Roger, KE8TEJ was looking for a solution for an effective 2 meter/70 centimeter antenna that he could use indoors for his Yaesu FT-7250 since his HOA does not allow outdoor antennas.

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.

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

<https://us02web.zoom.us/j/87220356586?pwd=cZgvLzRPejVBT2hPSkVIZU1VaU84Zz09>

Meeting ID: 872 2035 6586

Passcode: PCARS2022

Digital Special Interest Group

Rick, K8CAV
Digital SIG Coordinator



Next SIG will be Tuesday May 9th at 7:00 PM

The next Digital Special Interest Group meeting will take place on Tuesday May 2nd 7:00 PM at the PCARS Club Site. This month we will have a special presentation by Ken, WA8LRW on using FT4 and FT8 in contesting mode for Field Day.

Ken has put together an excellent presentation covering all aspects of FT4 and FT8 during Field Day and I highly recommend anyone that intends to use these modes at Field Day attend this meeting. The meeting will also take place on Zoom at the link, below.

As always we will make time to answer any questions or address any problems you may be having involving digital communications. I hope to see you there.

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

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

Meeting ID: 883 5509 4567

Passcode: PCARS2022



Portable Ops Special Interest Group

John, WG8X

Portable Ops SIG Coordinator



Next SIG will be Tuesday May 9th at 7:00 PM

This month's Portable Ops SIG will be continuing with the Portable ops Show & Tell that we started last month. Bring your gear, or show it on Zoom.

So, what rig do you like for operating when you aren't in the shack? Let's see it. Antennas? I know we have some experimenting going on in the club, so let's have a look at what you are working on.

We hosted the PCARS Portable ops Field Trip for POTAs Spring Support Your Parks (SYP) weekend. You can read all about that in this issue.

So, bring your portable gear. Our Portable Ops SIG is on May 9th. We'll be meeting at 7 PM at the PCARS club site (705 Oakwood St, Ravenna). Bring your questions, show, and tell, or just come to hang out.

We'll be hitting the road for the June Portable ops SIG meeting. You'll hear more about that soon.

We'll again be streaming this month via Zoom. Here's the link:

<https://us02web.zoom.us/j/89732195744?pwd=cldtZmxMcMfQqQndhQWtJN0s2NUNnUT09>

Hope you can make it.

Could Be Anything Special Interest Group

Rick, KD8WCK

Could Be Anything SIG Coordinator



Next SIG will be Tuesday May 30th at 7:00 PM

The next SIG meeting will be Tuesday May 30th at 7:00 PM at the club site 705 Oakwood St. In Ravenna and also on Zoom - link to be sent out via the QST blast.

Please bring your nanoVNA and/or your tinySA if you have one. These are wonderful inexpensive and capable measurement devices that a lot of us own but we're not all skillful at operating them.

Also bring a coax jumper you're suspicious about to use for a test subject.

We will go through the checklist of setting up your nanoVNA vector network analyzer, and we'll take measurements on some coax pieces to decide if they are good or bad. Then we'll take SWR measurements on an antenna so you can jot down notes on the procedure and try that at home on your own station.

Then David, KE8QEP will run through the capabilities of the TinySA spectrum analyzer. And then we will break into random conversation and solve all the problems of the world.

Please join us in person or on Zoom if you can!



PCARS Thursday 2 Meter Nets

Greg, KA8TOA
Net Control Coordinator



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

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

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

May	
4	KA8TOA
11	KE8BWA
18	K8CAV
25	N8WCP

June	
1	KD8WCK
8	N8QE
15	WB8LCD
22	KE8ARB
29	KA8TOA

July	
6	KE8LWO
13	N8WCP
20	N8QE
27	KE8BWA



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

Special Congratulations to Tim, W8HFZ for qualifying and receiving the 10-Consecutive PCARS 2-Meter Net Check-In Award



Charlie the Tuner's HF High-Lites

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



Greetings DXers

Charlie the Tuner's DX High-Lites – May 2023

May is a time of sunshine and flowers, of bees and butterflies. Well enough of that! Now it's time to get out and do some portable DXing and contesting. Hopefully the WX will be quiet during May. But it's even snowed heavily during May so one can never tell.

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.

May...

3D2, FIJI. Cezar, VE3LYC will be active as 3D2LYC from Yanuca Island, IOTA OC - 189, Fiji, 1 - 5 May. He will operate on HF Bands. QSL via ClubLog OQRS.

4F1, JOMALIG IS. Jai, 4F1DY will be active from Jomalig Island, OC-091 during May 9-11. QRV on 40-10m, SSB. QSL via EA5G. IOTA directory suggests Jomalig Island (part of the Polillo Islands) has never been activated before. On May 4-7, look for Jai to QRV from Palawan Island, OC-128.

5UA, NIGER. Giorgio, IU5HWS will be active as 5UA99WS from Niger, 1 May - 15 June. He will operate on 40 - 10m Bands, SSB, FT8. QSL via EA5GL.

5X, UGANDA. (Reminder) Pista, HA5AO as 5X2I from Uganda until May 10. He will operate on 40 - 10m, CW, SSB, FT8, using FT710 transceiver with KPA500 amplifier and DX Commander antenna. QSL via OQRS on ha5ao website.

8Q, MALDIVES. (Reminder) Meedhupparu Island, DL2SBY will be active again from Maldives, IOTA AS - 013, until May 7, 2023. QSL via DL2SBY direct, LOTW, ClubLog OQRS.

4F2, SPRATLY ISLANDS. Gil, 4F2KWT will be QRV as DX0NE from Kalayaan from April 30 to May 9. Activity will be on 160 to 10 meters using CW, SSB, and FT8. QSL via IZ8CCW.

9X, RUWANDA. Harold, DF2WO will be active again as 9X2AW from Rwanda, 5 - 15 May. He will operate on 160 - 10m, CW, SSB, Digital modes and QO-100 satellite. QSL via M0OXO, OQRS.

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.

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

HK0, SAN ANDRE IS. HK0/PY8WW, HK0/PY7RP, HK0/PY7XC will be active from San Andres Island, IOTA NA - 033, May 2-20. They will operate on 80 - 6m, CW, SSB, FT8. QSL via home calls, ClubLog OQRS, LOTW.

JA6, MIYAKO ISLANDS. Take, JI3DST, will be active as JI3DST/6, JS6RRR, JJ5RBH/6, and JR8YLY/6 until May 15 on 80-6m (CW, SSB, RTTY, FT8) and during the CQ WPX CW Contest as JS6RRR. QSL via JI3DST.

JW, SVALBARD. JW/SQ9CNN will be active again from Svalbard Island, IOTA EU - 026, 26 - 28 May. He will

operate on HF Bands, CW, SSB, FT8, from JW5E Club Station. QSL via SP9FIH.

VP2, ANGUILLA IS. KE1B and W6NN will be active again as VP2EAQ and VP2EAR from Anguilla Island, IOTA NA - 022, 24 May - 1 June. They will operate on 40 - 10M, possibly 6m, CW, SSB, RTTY, FT8. They will be active also in CQ WW WPX CW Contest, 27 - 28 May, as VP2EAQ. QSL info VP2EAQ via KE1B direct, LOTW. VP2EAR via W6NN direct, LOTW. They will be at the Songbird Villa, Rendezvous Bay.

VU, INDIA. Look for AU40NRO to be active from April 1 to June 30 to celebrate the 40th anniversary of the National Institute of Amateur Radio (NIAR). QSL via VU2NRO.

ZD, TRISTAN da CUNHA IS. Andy, ZD9BV is active from Tristan da Cunha Island, IOTA AF - 029. He has setup antennas and will operate on HF Bands. QSL via ZD9BV direct.

ZF2, GRAND CAYMAN IS. Tim, N3DL is currently active as ZF2TH from Cayman Islands, IOTA NA - 016. He is working on HF Bands. QSL via home call direct.

ZL, NEW ZEALAND. Special event station ZL100 will be QRV until July 25 to celebrate the first amateur radio contact made between New Zealand and Australia. QSL via bureau.

June...

7Q MALAWI. 7Q7WW Team will be active from Malawi, 21 June - 3 July 2023. Team - W1IE, KC4D. They will operate on 160 - 6m, CW, SSB, FT8, RTTY. QSL via W1IE.

VP9, BERMUDA. Dave, G4OSY, will be QRV as G4OSY/VP9 on 40-6m (SSB and maybe CW) from Hamilton Parish, Bermuda from June 27 to July 8, 2023. QSL via G4OSY. No eQSL or LoTW.

For some reason, there is not a lot of news for June or July. Hopefully that will change as it gets closer to that time. But for now, what you see is what you get.. Remember **POF – Preserve Our Frequencies – Get on the air and work some DX.**

Notes from the Treasurer

Greg, KA8TOA
PCARS Treasurer



First of all great job Parky for creating a great news letter and congrats for the QST magazine article. Now for on to some PCARS finance news.

Ours dues cover a lot of things at the club site and other projects of interest for us hams. Like insurance policies for liability, equipment, Field Day expenses, repairs at the club site, rent and other events (like the BBQSO Party). We also contribute to two Youth programs.

We have a great club and our officers donate a lot of time and sometimes money that is not reimbursed.

When we ask about donating to a cause, it is not for the club, it goes directly to the charity and then the board decides what to donate from the general fund to that charity or program.

For example, the RCA Youth Forum at the Dayton Hamvention: \$105.00 was collected thru pay pal, \$190.00 was collected in cash from members, \$155.00 from the general fund for the club donation and a \$50.00 check for a total of \$500.00.

By the way some of us attended the Youth Forum last year and it was great. All the youths who were chosen to present and speak there, received very nice gifts from various radio dealers and companies. In closing, I hope to see some of you at Hamvention in Xenia. Be Safe have Fun - and 73 to all.

Activated All Ohio State Parks Award

John, WG8X



Back in 2016, I finished up the Worked all Ohio State Parks award. Needing another goal to shoot for, I decided to go for its twin; the “**Activated All Ohio State Parks**” Award. It wasn’t easy, but boy was it fun! This is one that is sponsored by Tom, WB8LCD in conjunction with the OSPOTA website (ospota.org).



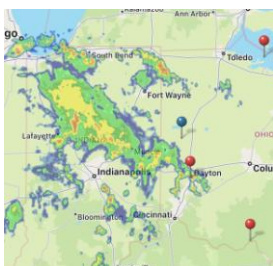
Before the price of gas went to four dollars a gallon, I had 51 Park activations in the log, and only needed 24 more, so this spring, I made a couple trips to SW Ohio that raised my total to 67 parks activated.

The final road trip was a 3 day rove last July that included tent camping at some really beautiful state parks. My first stop was an overnight at Mt. Gilead SP. I’ve activated this one several times, but being in Central Ohio, it was a good starting point for the weekend. A good night’s sleep, and some supplies, and I was on my way.



Fridays route began with Maumee Bay SP, near Toledo, looped NW Ohio, and after dinner with a POTA friend, ended on a rainy night at Independence Dam SP.

By the way, Independence Dam is a unique park. It has a large campground, but no campers/RVs are allowed. I saw some van campers, but mostly it is tent camping only. The campground is right on the North Country National Scenic Trail (NCNST). The NCNST piggybacks along on the Buckeye trail through its entire time in Ohio. This was unique, because I was able to get credit for a Two-fer, activating both the park, and the trail simultaneously.



After a rainy night, Saturday’s weather eventually cleared, and the chase was on for the final 5 parks in the quest. The trip was planned with Lake Loramie SP to be the final park on the list. IO had a SKED arranged with my friend, Doug, W8EOT, who was the first contact at my 75th park. Doug is holder of the **Worked All Ohio State Parks** plaque #2. After meeting Doug for dinner, I dashed off 40 more contacts to satisfy the POTA requirements for a park activation (POTA requires 10 contacts from the park). Then, it was off to sleep. The quest was over.

My most memorable State Park activation is a tie between the trip to North Bass Island, which took with KD8BBK, and the rainy activation at Independence Dam.

I’d like to thank Tom, WB8LCD, for sponsoring this award. The beautiful plaque signifying, traveling to you and activating all Ohio state parks will occupy a place of honor in my shack. This quest was a wonderful ride.

So, it’s kind of cool to be talking to someone and they’ll ask “Have you been to this state park or that state park”. I don’t even have to think about it anymore; I can just say yes. LOL. So, as I write this, I’m well on the way to activating all Ohio POTA references; there are 271 of those, and I’ve done 192 so far. After that, who knows?

I hope this inspires you to fire up the rig, and chase your goals! 73 DE WG8X



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



Youth DX Adventure - 2023 - PJ2Y

The Dave Kalter Youth DX Adventure announces their 2023 trip to Curacao on July 13-18th

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



Pictures from the CFARC Hamfest

Photos taken at the Cuyahoga Falls Amateur Radio Club (CFARC) hamfest that was held on April 15th.



What is a Bus Bar on a Power System?

Scott, N8SY



Electricity is usually sent over wires, which are electrically conductive metal. Wire is convenient, because you can put insulation on it and bend it around corners, move it around, string it between power poles, that sort of thing.

However, sometimes wire isn't the best option. Sometimes it would be easier if you used a solid conductor instead of wire. A really great example of this is a "welding table": this just a table made out of a big slab of steel (which conducts electricity.) Welding tables are usually grounded, so that any metal part which is placed on the table also becomes grounded. This allows you to weld on anything placed on the table without needing to attach a separate grounding cable.

Back to bus bars: in a power plant or power distribution center, sometimes you're handling so much power that cables aren't convenient. You might need a cable as thick as a firehose and six times as heavy to carry the current. In those cases, instead of using cable, we can just use slabs of metal instead. Those slabs of metal are called bus bars.



Here's an image of some low/medium voltage copper bus bars.

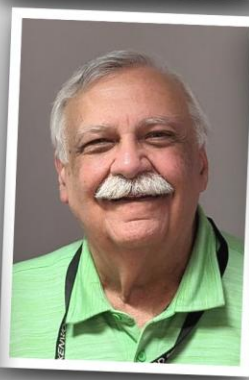
Using slabs of metal instead of cable has some advantages: you can bolt them into place using insulators, and just like a welding table you can attach a connector anywhere on the bus bar. The downside is that you can't just unplug a bus bar or move it; in fact, you may have heard the term "down for bus bar maintenance", which basically means "we have to shut down the power to this system and take it apart so we can get at the bus bars and inspect/replace them."

One final thing: bus bars rarely if ever have insulation on them. They're usually fully enclosed, and the enclosures really should be animal/rodent/bird proof.

Because they carry so much power, you can have really terrible accidents if something creates a short between the bars. One other very frightening thought for you to consider... If you get across a live circuit like this, it could just make for a very bad afternoon for your widow!



Photos from the PCARS Meeting



PCARS - April 10, 2023



PCARS - April 10, 2023



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

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

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



From the Ohio BMV:

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

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

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

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

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

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

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

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

PCARS is on YouTube

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



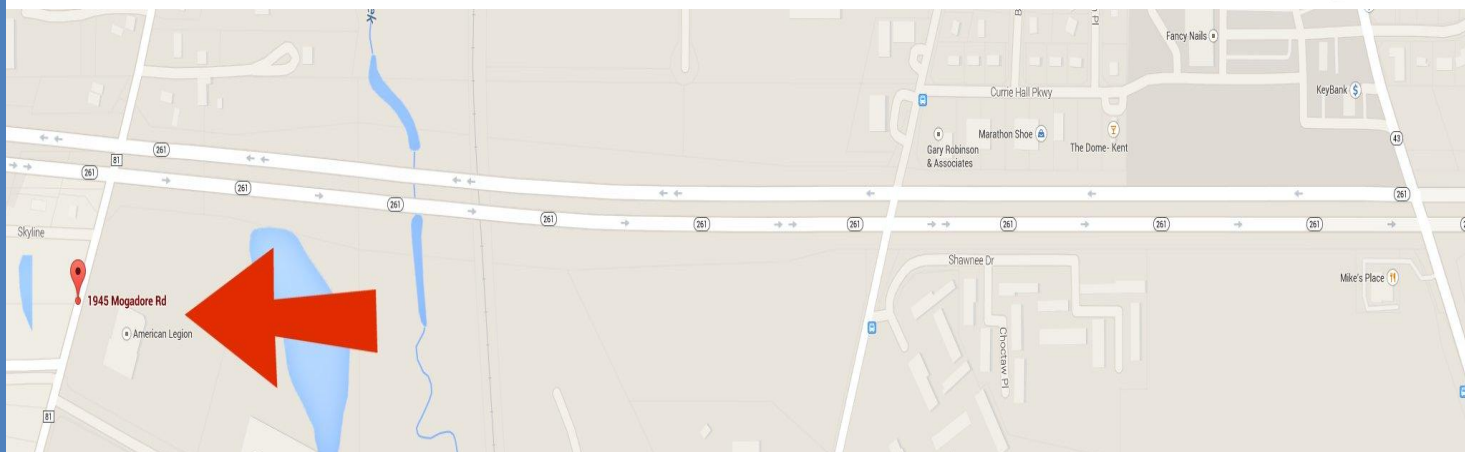
PCARS Meetings

The Portage County Amateur Radio Service (PCARS) in-person meetings are held the **2nd 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 June 3rd at the club site starting at 10 am.

Future Dates:
August 5th, October 7th, December 2nd
***** Check the website for the latest information *****

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

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

QUICK FACTS

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

Okay - now all the Details:

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



Any questions? Contact KB8UUZ@gmail.com

Additional Information - What to Bring to the Testing Session

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

These documents may include:

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

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

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

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

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

Email Addresses REQUIRED

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



New FCC \$35 Amateur Application Fee

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

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

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

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

Youth Licensing Grant Program

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

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

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

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

Visit the ARRL website for the program instructions and reimbursement form at www.arrl.org/youth-licensing-grant-program.

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

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

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

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

=====

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

INFORMATION ABOUT THE FCC APPLICATION FEE AND VEC FILED APPLICATIONS

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

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

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

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

CORES payment system background information and instructions: Information.

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

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

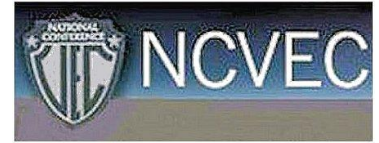
3. Examinees should NOT amend any applications that a VEC submits on their behalf, especially NEW license applications. Amending VEC filed applications will cause the application to be dismissed without action in the FCC system and potentially require the applicant to pay another \$35 fee. If there is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

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

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



General Class Test Pool Changes July 1st



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

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

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

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

"The newly revised pool must be used for General-class license exams starting July 1, 2023," said ARRL VEC Manager Maria Somma, AB1FM, who is a member of the NCVEC Question Pool Committee.



General class examination candidates preparing for their exams using the 9th edition of [The General Class License Manual](#), and/or the 6th edition of [ARRL's General Q & A](#) are encouraged to test by, or before, June 30, 2023.

New editions of ARRL licensing publications will be available in May, for exams taken on, or after, July 1, 2023.



Check Out Your Copy of May QST



Our award winning editor of the Radiogram, Parky KB8UUZ, has an article in the May issue of QST. He wrote a great piece on how to build a club newsletter. You could find no better source on this topic. Congratulations Parky on your article. Everyone, check it out!!

I know Parky knows this, but everyone in PCARS appreciates all the work he does to document our club. THANKS from everyone in the club.

66th Annual

Largest Hamfest in the Tri-State Area



BreezeShooters



2023 HAMFEST + ARRL SECTION CONVENTION

Web Site: <http://www.breezeshooters.org>

Email: hamfest@breezeshooters.org

The Return of the BreezeShooters Hamfest is Official

Sunday June 4, 2023

And Returning to the

Butler Farm Show Grounds

625 Evans City Road, Butler, PA 16001

(site of the Hamfest for decades prior to 2016)

- Advance Admission Tickets available at a discount on the website
- ARRL WPA Section Convention
- Indoor and Outdoor Flea Market spaces available in advance
- Wide Range of Educational Forums
- Numerous Vendors including Quicksilver Radio, KJI Electronics, and Satellite Headquarters
- VE License Testing for all Amateur and Commercial Classes
- ARRL, DXCC Card Checking and Bureau representatives
- Live Demonstrations of the WEARS EMCOMM Mobile Unit
- BreezeShooters Award Presentations
- Prizes, Prizes, Prizes

Talk-in will be on the 147.300(+) Repeater- *pl 131.8*

Watch <http://www.breezeshooters.org> for details.

If using a MAPPING APP on your phone, be sure to query "BUTLER FARM SHOW GROUNDS – Butler PA"

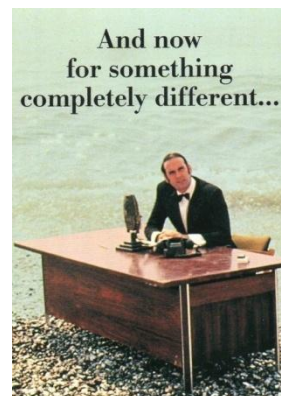
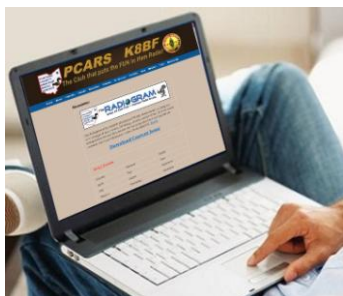
=====Cut Here=====

ADVANCED MAIN PRIZE TICKET SALES

Main Prizes Drawing	\$2 Each	3 for \$5	7 for \$10	15 for \$20	40 for \$50	90 for \$100
Main Prizes Total OVER \$6000 VALUE	Limited Time Incentive: Buy \$50 get Admission Ticket, Buy \$100 We'll fill out tickets plus get Admission Ticket					
ENCLOSED CHECK IN THE AMOUNT OF:	\$	Send a Self-Addressed Stamped Envelope to: Advance Ticket Sales, Breezeshooters Hamfest PO Box 101018, Pittsburgh, PA 15237				
Make check Payable to Breezeshooters, Inc. Mail Deadline is April 30, 2020. Ticket Stubs returned in your SASE!						
NAME:		CALL:		PHONE: () -		
ADDRESS:						
CITY:		STATE:	ZIP:	EMAIL:		

Ver2 →

Found on the Internet



If you haven't already tried this mode, you must give it a try. **Q65** is amazing. There is a short article on Amateur Radio Weekly (link at bottom). I am having some "Big Fun" with this.
Jim, AC8NT

<https://t.e2ma.net/click/z10r1i/jd7blh8b/jtnjew>

TECH IN PLAIN SIGHT: FIELD GUIDE TO POWER PLUGS

https://hackaday.com/2023/04/12/tech-in-plain-sight-field-guide-to-power-plugs/?mc_cid=ce21df8fff&mc_eid=62d4a8e12b

Sherlock Solves a 30 Year Transmitter Hunt

<https://www.eham.net/article/46406>

Paul, NO8D

For those interested, here is an interesting site that you can use to see the **terrain profile** between any two points.

<https://ispdesign.ui.com/#>

Ignore the radio stuff as they are only 900MHz and above.

Paul, NO8D

The Magic of Antennas - Nuts & Volts Magazine

https://www.nutsvolts.com/magazine/article/the_magic_of_antennas?utm_medium=email&_hsmt=256254233&_hsenc=p2ANqtz-8BBVXX6lmslD_tqGglyvdzLp-XnBnrMi6nfAq5GsDFloCXNuLhrIEIbbpJ2jZF3S2CQ-VqaeV13iYv_yJ5sx24HOoeQ&utm_content=256254233&utm_source=hs_email



Thanks & 73



Parky, KB8UUZ
PCARS Newsletter Editor



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

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

AC8QG, AC8NT, KB8UUZ, WA8EFK, N8SY, WB8LCD, WG8X, WB2MGP, AB8YK, W8CI, K3LR, AJ8B, WA8AR, K3GP, N8WCP, K8CAV, W8PT, N8QE, KD8WCK, KA8TOA, N8AMY, NO8D, The ARRL, CQ Magazine Nuts & Volts Magazine and the World-Wide Web
With *your* continued help – we can keep making this a *great* newsletter.

Still need Some Help Here

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

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

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

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

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

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



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

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

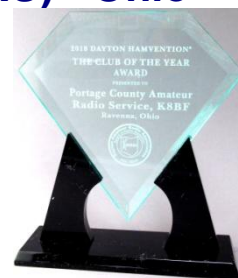


PCARS meets the second Monday of each month at the **Kent American Legion Post 496**,
1945 Mogadore Rd. - just South of Rt. 261 - Enter the rear of the building for the meeting room.

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

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

Check PCARS out on the web: www.PORTCARS.ORG -or- www.K8BF.ORG



~ 2023 Officers ~		2023 PCARS Appointments & Committees	
President - Nick Wagner - AC8QG Vice President - Jim Wilson - AC8NT Treasurer - Greg Ash - KA8TOA 1 Year Trustee - Tom Parkinson - KB8UUZ 2 Year Trustee - Chuck Patellis - W8PT 3 Year Trustee - Mike Ryan - KB8TUY Past President - Tom Sly - WB8LCD		ARRL Awards - DXCC	W8KNO Joe Wehner
		Club Site Manager/Liaison	K8CAV Rick Kruis
		Contest Coordinator	W8PT Chuck Patellis
		EchoLink	AC8NT Jim Wilson
		Field Day Chairman, 2022	WA8AR Tony Romito
		FYAO Chairman	W8PT Chuck Patellis
		Historian	KB8SZI Peggy Parkinson
		K8BF Callsign Trustee	N8AMY Amy Leggiero
		K8BF QSL Manager	N8AMY Amy Leggiero
		Membership Chairman	
		Net Control Coordinator	KA8TOA Greg Ash
		Newsletter Editor	KB8UUZ Tom Parkinson
		OSPOTA Chairman	KB8UUZ Tom Parkinson
		PCARS Photographer	KE8LWO Bernadette Wagner
~ Meetings & Net ~		Public Information Officer	
2nd Monday of each month. 7pm Thursday night Club Net at 8 pm on 146.895		Secretary	KE8EGF Paul Hyland
		Social Media	N8WCP Mike Szabo
		Tech, Gen & Extra Class Mgr.	AC8NT Jim Wilson
		Volunteer Examiner Liaison	KB8UUZ Tom Parkinson
		Webmaster	WG8X John Myers

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



THE RADIOGRAM

PCARS Incorporated
Nov. 1, 2005

First Meeting
Nov. 14, 2005



ARRL Affiliation
April 20, 2006



Special Service Club
March 22, 2010

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