



# 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

June 2021 - Volume 16 Number 6



## PCARS K8BF



# 4A



# 2021

# FIELD DAY



# OH

# amateur radio



# FIELD DAY 2021



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Portage County Amateur Radio Service



2018 Hamvention® Club of the Year



## From the President



**Nick, AC8QG**  
PCARS President



### "Are we there yet?"

It's a question I've heard far too often from my kids while on a trip. But it's also a question that I've asked myself repeatedly for the last year. After 15 days turned into weeks and then months, after the frustration of another cancelled event, when the numbers looked better, when the numbers looked worse: "Are we there yet?" Each time a friend lost their job, when another business closed permanently, when a restaurant finally reopened: "Are we there yet?" When I celebrated Easter at home with just my family, when I celebrated Christmas with a few masked people in church: "Are we there yet?" Whenever another friend or family member died alone, and whenever I saw the young children who were unable to say goodbye: "Are we there yet?"

So... Are we there yet?

No. We're not there yet. The virus is still here and is still claiming lives. But we're getting closer. Churches are welcoming back their congregations, sports venues are filling up again, businesses are returning to normal operation, and social activities are making a comeback. I'm grateful to see the progress and to finally experience these next steps.

At PCARS, we're working on our return to normal, too. Zoom isn't going away, but we're opening the club doors, too. I'm excited about using our club site once again. We'll have to exercise some common sense and follow some sanitization protocols. We'll start slowly and hopefully have more in-person activities as the year continues. Wherever practical, we will continue to use Zoom as an alternative way to join activities and events. We will continue to adapt to the circumstances on the ground and cancel events or switch to fully virtual as needed.

Look out for announcements about upcoming activities here in this newsletter, in QST emails, on our website ([www.portcars.org](http://www.portcars.org)), and on our weekly net.

### 2021 Member Survey

Please help us learn more about you and your Amateur Radio interests by participating in our 2021 member survey. If you haven't already completed it, just go to our website ([www.portcars.org](http://www.portcars.org)) and click the link.

We've already received some excellent feedback, but I'm hoping for even greater participation. It only takes about five minutes, so don't wait! Complete the survey now (and then come back and finish reading the newsletter)!

### Volunteer Needed

I am currently looking for a volunteer to be our public information officer (PIO).

The PIO interacts with ARRL officials, federal, state, and local government, law enforcement, EMA, health organizations, newspapers, etc. The PIO is also responsible for sending information to the ARRL at the state, division, and national levels, and any local, state, or federal news outlets as deemed necessary.

If you are interested in helping the club in this capacity, please send me an email at [president@portcars.org](mailto:president@portcars.org).

## Be Excellent to Each Other

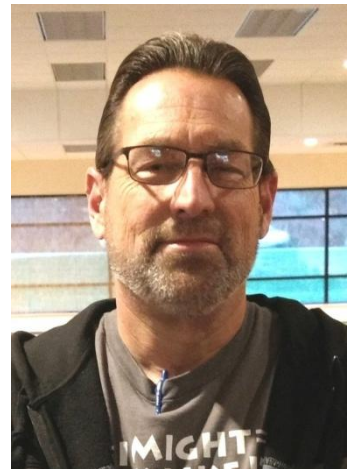
PCARS is made up of a rather varied group of people. We have old and young, experienced and inexperienced, Republicans and Democrats, dog lovers and cat lovers. Our club constitution says “*All persons interested in Amateur Radio communications shall be eligible for membership.*” Amateur Radio brings all of us together.

So, if you see a new member at an event, say hello. If a long-time member joins your table, strike up a conversation. Share what you’re doing in the hobby and ask what they’re up to. Don’t hesitate to offer some advice, share a story, or ask a question. We’re all very different, but we can all learn from each other and we can all experience “**Big Fun**” together!

## From the Vice President



**Mike N8WCP**  
PCARS Vice President



Nick, AC8QG recently sent a survey invitation to the membership. I encourage every member to take a few minutes to complete it. Your response will provide guidance in the selection of meeting speakers, build projects, and future club events. With the improving conditions I expect we will be able to open the club site to normal operations soon and this info will be helpful.

Our last meeting was well attended both in person and on Zoom. Anthony Luscre, K8ZT presented “*Beyond Repeaters for Technicians*” which illustrated there are numerous modes of operation we can all have fun with regardless of our license class.

Our speaker for the June meeting will be Steve Ford, WB8IMY who will present on sunspot cycle 25. Steve is the former chief editor of QST Magazine and spent nearly 30 years with the ARRL. Steve has written or edited numerous books about our hobby.

The first meeting of the new Portable Operations SIG moderated by John, KD8MQ is June 8th at 7:00. John is active in POTA with over 9,000 contacts and he is a member of the OSPOTA committee. This should be an interesting SIG.

Field Day is just a few weeks away and we still need operators. If you’re interested in operating the most popular ham radio event, contact one of these station managers to reserve a time slot.

CW Station - George, K3GP [rttyfan@gmail.com](mailto:rttyfan@gmail.com)  
Flex Digital - Rick, K8CAV [k8cav.coms@gmail.com](mailto:k8cav.coms@gmail.com)  
20M Phone & Digital - Mike, N8WCP [n8wcp.us@gmail.com](mailto:n8wcp.us@gmail.com)  
40M Phone - Ed, K8IV [ep.k8iv@gmail.com](mailto:ep.k8iv@gmail.com)

Stay radioactive!





## Schedule of Events



On the calendar for upcoming meetings and activities are:



*Although we are resuming in-person activities, many regular events are canceled or will be conducted virtually. Even events that are scheduled to be in-person may be canceled or moved to virtual. Please read this newsletter, join our weekly on-air club net, and watch for QST emails so you can stay up to date.*

**June 7<sup>th</sup> - PCARS Board Meeting via Zoom - 7 pm**

**June 14<sup>th</sup> - PCARS Meeting - 7 pm at the Kent American Legion and on Zoom**

Steve Ford, WB8IMY - Topic is Cycle 2

**June 26-27 - Field Day 2021 - Freedom Township Park (same place as in 2019)**

**July 5<sup>th</sup> - PCARS Board Meeting via Zoom - 7 pm**

**July 12<sup>th</sup> - PCARS Meeting - 7 pm at the Kent American Legion and on Zoom**

Carl Luetzelschwab, K9LA - Topic is HF Propagation

**NOTE: All In-Person Activities & Meetings Subject To Cancellation**

**Check Web Site for Updates**



- |                 |   |  |
|-----------------|---|--|
| First Tuesday   | - | <b>Digital</b> - Moderator: Rick, K8CAV                              |
| Second Tuesday  | - | <b>Portable Ops</b> - Moderator: John, KD8MQ                         |
| Third Tuesday   | - | <b>Antenna</b> - Moderator: Tony, WA8AR                              |
| Fourth Tuesday  | - | <b>DX &amp; Contest</b> - Moderator: Chuck, W8PT                     |
| Fourth Thursday | - | <b>Net Night at the Club Site - 6:30 pm</b> - Moderator: Tom, WB8LCD |



## 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 - Paul, KE8EGF.**



Paul 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** and they are for sale at \$5.00 each.



**Contact Paul for all of the details**

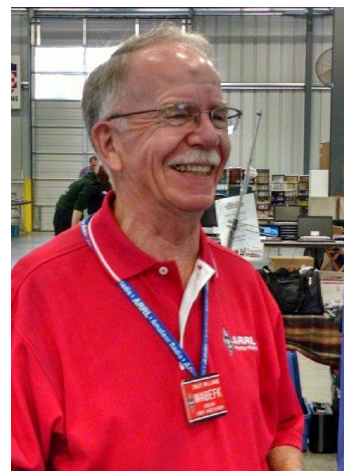


## From the Great Lakes Division Director



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

Greetings, welcome to "Dale's Tales" for June, 2021.



It surely is nice to see our hamfest schedule growing and some actual swaps happening. We all are well aware that many of our clubs have faced very difficult decisions in determining if their plans for a hamfest needed to be scrubbed. The rapidly changing health environment, changing rules and guidelines both from the federal and state level, combined with rules from various venues all forced postponements and cancellations.

At this writing, guidelines have reached a reasonable level in most areas and now with careful planning and cooperation, the doors and gates are opening. We have juggled a few plans and rearranged our ARRL Convention Schedule to make accommodations as best we can. I took the liberty to put everything on the table. We normally plan conventions in alternate years, with individual State Conventions (3) in one year, and our Division Convention the next. A lot of planning and commitment goes into these events, each is unique and each puts a heavy load on the sponsoring group so alternating the convention types has really worked well. We all are eager to get back in the swing of meeting our fellow hams in person, so **we'll hold Division Conventions both this year and 2022**. We'll put a couple of State Conferences (like mini-conventions) on the calendar this year and next then return to our regular alternating schedule in 2023.

Truly, the Division Conventions always get the largest attendance as they cover all three Sections in our Division, Kentucky, Ohio and Michigan, and because of that, we also are fortunate to receive extra support from ARRL HQ, typically in the form of guest attendees and speakers from the HQ staff. Make your plans to attend these as special forums, net meetings and training sessions are always of interest. We are all going to do our best to bring the latest in up-to-date presentations to the ARRL Great Lakes Division. A banquet, guest speakers and Special Awards are always an integral part of these affairs, times when we can honor our fellow hams for their outstanding efforts in assisting their communities and ham radio itself. Announcements containing the details of each convention will follow over the next few weeks as each forum gets confirmed. See "Scott's Stuff" for the first announcement.

73, Stay safe. Light up those bands!



# PCARS K8BF

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



## From the Great Lakes Division Vice Director



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



This past month has been really crazy around here as a lot of hard work is continuing on the committees that I'm on. The Field Organization group is one of them and in the past couple of months we put out a questionnaire to all of the Section Managers in the country. We asked them to tell us what was the most important issue that they would like to see improved (or problem resolved) that would be most beneficial to them as Section Managers to perform their jobs? We received a lot of really valuable and great comments and we are now working on getting those concerns resolved.

The PR Committee that I'm also on is going through the list of candidates to nominate the next Philip J. McGan Memorial Silver Antenna Award recipient. Because of the pandemic last year, no one was chosen, but that's not true this year. We have several really good candidates to choose from. Once we choose our candidate, that person's name will then be submitted to the full Board of Directors when we meet in July for their consideration and approval. Our PR Committee has also been busy putting together a lot of information that all of the PIOs and PICs have already received to help them promote this year's Field Day. Don't forget, Field Day is June 26 -27.

**If you haven't heard, we are going to have a Great Lakes Division Convention after all! Yes, the great folks of Bowling Green Kentucky are going to host the 10th Annual Vette City Hamfest / ARRL Great Lakes Division Convention on October 2nd! As that it is only 4 months away, planning is spinning up fast, so get this on your calendars now. We want everyone in the Great Lakes Division to come out and have a blast with us.**

Yes, the Joseph Phillips, K8QOE, Newsletter Award is still on. For those of you in Kentucky and Michigan please get your newsletters turned in to your Section Manager and Public Information Coordinator quickly.

The best newsletter from each of the 3 Sections (Michigan, Kentucky and Ohio) will be chosen by their respective Section Leaderships to compete for this very prestigious award.

We want every club in the Great Lakes Division to be able to participate for this award. So, if you are producing a newsletter, be sure to send a copy of it to your Section Manager. He'll take it from there.

That is going to do it from here this month. So, "GOTA" and have FUN!!!





## From the ARRL Ohio Section Manager



**Tom, WB8LCD**  
ARRL Ohio Section Manager



I am going to start here by saying I hope you all enjoyed the Memorial Day weekend. This is not the time for fireworks and celebration, this is a time to thoughtfully reflect on all of those who have given their lives in service to, for the sake of, and the continued FREEDOMS offered here in the United States of America.

For those of you who have served, or are currently serving in the US Military, you have my utmost respect and thanks. For those of you who have, or are currently, serving in any other public service capacity, thank you also.

The attitude of service to others is one of the things that truly make the United States the Greatest country that has ever existed on this earth!

## PCARS VE Test Information & News

**Tom, KB8UUZ**  
PCARS VE Team Liaison

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.

**NOTE: All Dates Subject To Cancellation Check Web Site for Updates**

You **MUST** register in advance - NO WALK-INS will be accepted. Send an email to [KB8UUZ@gmail.com](mailto:KB8UUZ@gmail.com) to register.



- You will be required to have, in advance, a Form 605 - properly filled in and signed. Once you register a form 605 will be sent to you via email. You can print it out and fill it in.
- **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.
- 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
- 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 will need your FRN number** (you can apply for an FRN on the FCC website). For hams having a license, your FRN is printed on your license.
  - If you are upgrading to General or Extra - You **MUST** bring your original valid amateur radio license **and a copy of** your valid amateur radio license to turn in with your Form 605.
  - Bring your own pencils and pens.
  - Calculators are okay to use (if you need one) as long as the memories are cleared.
  - NO cell Phones allowed



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



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

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

These documents may include:

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

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

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

### **FRNs Required at Exam Sessions**

As of May 20, everyone taking an amateur radio license exam must provide examiners with their FCC Registration Number, or FRN, *before* taking the test.

**Current hams and other FCC licensees will already have one**, but prospective amateurs must sign up for a number ahead of time. The process is simple: Go to the FCC's website at <https://tinyurl.com/njmmjibv>, follow the prompts and fill out the form.

The ARRL notes that you will need this number after taking your test to log into the FCC website to print out your license, which the Commission no longer sends in the mail. The CORES website can be accessed at: <https://apps.fcc.gov/cores/userLogin.do>.



After June 29, all filers **must provide an email address** on all applications. When an email is provided, applicants will receive an official electronic copy of their licenses once granted (allow incoming email from [authorizations@fcc.gov](mailto:authorizations@fcc.gov)). **If no email is provided when filing on or after June 29, applications will be rejected.** ARRL VEC suggests that those without access to email to use the email address of a family member or friend. The FCC has stated that the email addresses will not be made part of your public record..

**The next scheduled VE Test session for PCARS will be  
Saturday - August 7<sup>th</sup> at 10 am  
at the PCARS Club Site in Ravenna.**

# 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**

The logo is circular with a yellow border. Inside, it says "AMATEUR RADIO" at the top and "VOLUNTEER EXAMINER" at the bottom. In the center, there is a diamond shape containing the letters "A", "R", "R", "L" and the letters "V", "E", "C" below it.

## FCC Not Yet Collecting \$35 Application Fee



*From the ARRL*

The majority of the FCC's revised Part 97 rules (adopted in December 2020) establishing new application fees that were to become effective on April 19, **but the new amateur radio application fees will not become effective on April 19**. The FCC announced on March 19 that the amateur radio application fees, including those associated with Form 605 filings, would not become effective until the "requisite notice has been provided to Congress, the FCC's information technology systems and internal procedures have been updated, and the Commission publishes notice(s) in the *Federal Register* announcing the effective date of such rules."

The \$35 fee, **when it becomes effective**, would apply to new, modification (upgrade and sequential call sign change), renewal, and vanity call sign applications, as well as applications for a special temporary authority (STA) or a rule waiver. All fees will be per application. Administrative updates, such as a change of mailing, email address, or name, are exempt.

It is expected that such fees will not become effective before summer 2021. The FCC has stated that amateurs will have advance warning of the actual effective date, because it will publish such date in the *Federal Register*.

ARRL Volunteer Examiner Coordinator ([VEC](#)) Manager Maria Somma, AB1FM, said VECs and Volunteer Examiner (VE) teams will not have to collect the \$35 fee at exam sessions. **Once the FCC application fee takes effect, new and upgrade applicants will pay the \$15 exam session fee to the VE team as usual, and pay the \$35 application fee directly to the FCC via the [Fee Filer System](#) or [License Manager System](#).** Somma said this information was provided in a [VE Newsletter](#) distributed this past week. "Further news and instructions will follow when we have them," she said.

## Morse Code Ninja

*Paul NO8D*

This site might be an interesting item for people who would like to increase their code proficiency from listening to just letters to listing to whole words.



There are tons of options here. This is the practice page, but other pages might also be interesting.  
<https://morsecode.ninja/practice/index.html>

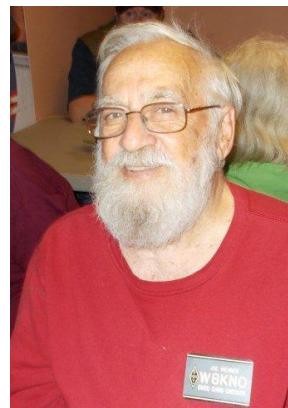


**PCARS**  
[www.portcars.org](http://www.portcars.org)





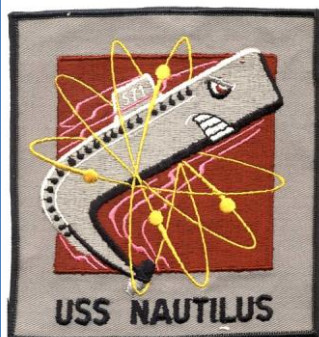
**Joe, W8KNO**



As a former Naval officer, you can all guess what Special Event I am going to mention. You guessed it. **Museum Ships Weekend** especially N1S, the USS Nautilus (SSN 571). Why a submarine you ask? My first ship after commissioning was the USS Hammerberg (DE 1015) whose primary purpose was to detect submarines and that is what we did during The Cuban Crisis, patrolling the Atlantic coast.

Museum Ship Weekend is the first weekend of June, from 8:00 P.M. Friday till 6:00 P.M. Sunday.

The Nautilus was the first nuclear powered ship in the United States Navy. It is also remembered for surfacing at the North Pole on 3 August 1958.



Listen for them around 3.850, 7.255, 14.275 and 50.5 MHz.

To obtain a QSL Card, send your QSL and a SASE to:

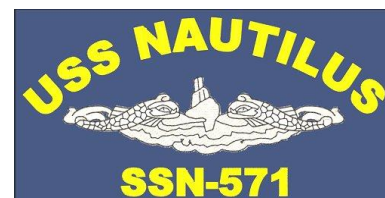
N1S, Generations ARC  
110 Vinegar Hill Rd.  
Gales Ferry, CT 06335.



Additional event information can be found at [www.qrz.com/db/k3lbd](http://www.qrz.com/db/k3lbd) or [www.qrz.com/db/n1s](http://www.qrz.com/db/n1s)

**Nautilus (SSN-571)** was the fourth U.S. Navy vessel and second submarine to bear the name. She was also the world's first nuclear-powered submarine and the first submarine to cross the North Pole under the Arctic polar ice pack.

*Nautilus* was launched on 21 January 1954 by Mrs. Dwight D. Eisenhower at Groton, Connecticut. Following additional fitting-out and extensive tests, the submarine embarked on her shakedown cruise on 10 May 1955. Over the next several years, she underwent various types of testing and trials, and took part in the U.S. Navy's development of new antisubmarine warfare (ASW) tactics - which had to be adapted to the advanced capabilities of *Nautilus*.



Hope to hear you on the air and Good Sailing



**PCARS**  
[www.portcars.org](http://www.portcars.org)



# CQ 2021 Inductees: CQ Contesting & DX Halls of Fame

## Announcing: 2021 Inductees to the CQ Amateur Radio, Contesting and DX Halls of Fame



CQ magazine is pleased to announce its 2021 Hall of Fame inductees, including two new members each for the CQ DX Hall of Fame and the CQ Contest Hall of Fame, along with six inductees to the CQ Amateur Radio Hall of Fame. This year's inductions are again being conducted online due to event cancellations resulting from the COVID-19 pandemic.

**The CQ Amateur Radio Hall of Fame** honors those individuals, whether licensed hams or not, who have made significant contributions to amateur radio; *and* those amateurs who have made significant contributions either to amateur radio, to their professional careers or to some other aspect of life on our planet. This year, we are inducting six new members, bringing to 339 the total number of members inducted since the hall's establishment in 2001.

The 2021 inductees (listed alphabetically) are:

- **Archibald Doty, W7ACD (SK)**, engineer, inventor, researcher into efficient radial systems for vertical antennas and pioneer of college radio; co-founded what is now WESU at Wesleyan University in Connecticut in 1939, the second-oldest college radio station in the U.S.; also served as a pilot in the U.S. Army Air Corps in World War II.
- **Nathaniel Frissell, W2NAF**, founder of HAMSci (Ham Radio Science Citizen Investigation), a collaboration between radio amateurs and ionospheric scientists; organizer of the 2017 Solar Eclipse QSO Party, which also served as a research project on the effects of a total solar eclipse on HF propagation.
- **Lorin Hollander, WA1PGB**, world-renowned classical concert pianist who has performed with virtually every major philharmonic orchestra in the United States, along with many others overseas; heavily involved in music and arts education and in relationships between music and medicine.
- **Christopher Imlay, W3KD**, ARRL Counsel and General Counsel from 1982-2018; represented the League before the FCC on a wide variety of issues, including PRB-1, now enshrined in FCC Rule 97.15 b), that requires state and local regulations to reasonably accommodate amateur radio antenna structures.
- **Cathryn Mitchell, M0IBG**, Academic Director of the University of Bath Doctoral College (UK) and recipient of the 2019 Edward Appleton Medal "for pioneering research in tomography and data assimilation revealing a completely new perspective on Earth's ionosphere in response to extreme space weather."
- **Admiral Charles "Chas" Richard, W4HFZ**, commander of USSTRATCOM, the United States Strategic Command, one of eleven unified commands of the Department of Defense; served previously as Commander of U.S. submarine forces and Director of Undersea Warfare at the Pentagon.

### **CQ DX and Contest Halls of Fame**

The CQ DX and Contest Halls of Fame honor those amateurs who not only excel in personal performance in these major areas of amateur radio but who also "give back" to the hobby in outstanding ways.

The **CQ DX Hall of Fame** was established in 1967 to recognize those amateurs who have made major contributions to DXing and DXpeditioning. This year, we induct two new members. The 2021 inductees are:

- **Jacky Calvo, ZL3CW/F2CW**, a veteran of the French Air Force and the International Committee of the Red Cross, with postings that took him (and his ham station) to a dozen countries around the world; a participant in more than two dozen DXpeditions and WRTC (World Radiosport Team Championship) competitions from 2010-2018 and is a team leader for 2022.
- **Francesco Valsecchi, IK0FVC/HV0A**, who has regularly activated Vatican City for the past 30 years using HV0A and other call signs, as well the Sovereign Military Order of Malta (SMOM) as 1A0KM. Along with fellow operators. Francesco has logged more than 300,000 QSOs for the two tiny entities, averaging roughly 10,000 contacts per year for hams around the world.



The **CQ Contest Hall of Fame** was established in 1986 to recognize those amateurs who have made major contributions to the art of radio contesting. The 2021 inductees are:

- **Robert Wolbert, K6XX**, a "renaissance man" of contesting, advancing the state of the art in designing amateur equipment at Elecraft, a participant in more than 1100 contests over 35 years and a many-time winner (he is a 9-time recipient of the Jim Maxwell Memorial Trophy for the highest-scoring California single-op unassisted station in the ARRL DX CW Contest); member of the organizing committee for the first WRTC in 1996 and a team leader in 2000 and 2014; has authored many articles for amateur contesting publications, presented at multiple conferences and is a longtime member and leader of the Northern California Contest Club (NCCC).
- **David A. Pruett, K8CC (SK)**, author of the NA contest logging program as well as a log-checking program and host of many multi-multi operations from his Michigan contest station over 30 years; longtime chairman of the Michigan QSO Party; former editor of the *National Contest Journal* and longtime member and leader of the Mad River Contest Club.

Formal inductions to the CQ Contest and DX Halls of Fame were conducted online once again, as a result of the COVID-19-related cancellations of the Dayton Hamvention® and associated contest and DX dinners. CQ World Wide DX Contest Director John Dorr, K1AR, led the Contest Hall of Fame induction at the conclusion of Contest University's online seminar on May 20, while CQ DX Editor Bob Schenck, N2OO, conducted the DX Hall of Fame induction on May 26 during the "Ham Nation" podcast on the Ham Radio Crash Course YouTube channel.



## A New Yaesu FT-891 for \$5.00 ?

The Alliance Amateur Radio Club's 2021 fundraiser is the raffle of a brand new Yaesu FT-891 HF/50MHz All Mode Transceiver. Tickets are on sale now. To learn more, or buy tickets online, you can go to:

<http://www.w8lky.org/about-us/2021-fundraiser/>



The winning ticket will be drawn on Wednesday, October 13th at our annual Fall fundraiser, or at our first club meeting after all tickets have been sold; whichever comes First.

Funds generated from this project help us to continue our public service projects in the Alliance area. Proceeds from last year's fundraiser enabled us to purchase, and outfit our club equipment trailer. One of our projects this year is some necessary upgrades for our 440 repeater.

Each year, we give back to our community with donations to local organizations, such as The Salvation Army, Relay for Life, and the local Police & Fire Department programs for Children in the Alliance area.

Only 600 chances will be sold for this radio. Tickets are \$5 each, or 5 for \$20. Further details can be found at: <http://www.w8lky.org/about-us/2021-fundraiser/> The Alliance Amateur Radio Club is a 501c(3) non-profit organization.



## 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: **Paul, KE8EGF** or e-mail him at: [phyland@neo.rr.com](mailto:phyland@neo.rr.com)

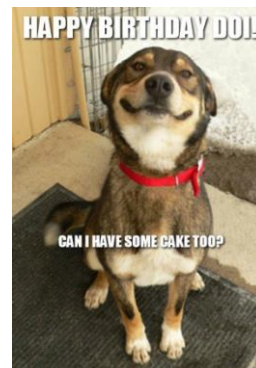


## Happy Birthday PCARS Members

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

<b>AD8FQ</b>	<b>Ben Wagner</b>
<b>KE8LWO</b>	<b>Bernadette Wagner</b>
<b>KD8LIR</b>	<b>Jennifer Sly</b>
<b>KD8JN</b>	<b>Randall Phelps</b>
<b>KC8YSU</b>	<b>Steve Hannah</b>
<b>AC8XO</b>	<b>Vince Bednarz</b>
<b>KE8MKZ</b>	<b>Philip Weiss</b>
<b>KD8WCK</b>	<b>Richard DeMattia</b>

<b>KD8EPF</b>	<b>Rena Martin-Wehner</b>
<b>WB3HUS</b>	<b>Richard Berezanich</b>
<b>W8SV</b>	<b>Howard Evans</b>
<b>KD8SIZ</b>	<b>John Miles III</b>
<b>WB8OVQ</b>	<b>Bob Warner</b>
<b>W8CDL</b>	<b>Coletta Tomasik</b>
<b>KB8VJO</b>	<b>Gary Overfield</b>
<b>WD8DAU</b>	<b>Dan Trout</b>



## Portage County Amateur Radio Service



# K8BF



## 2018 Hamvention® Club of the Year



## Swap-N-Shop

**WANTED: Transceiver capable of 6 meters SSB** - Looking for a radio that can operate on 6 meter SSB, ideally over 10 watts. I'm looking for something less than \$300, but could go higher depending on the radio.

**Contact: David, KE8QEP** email: [dwaugh@kent.edu](mailto:dwaugh@kent.edu) call or text: 330-603-8640 [08/02/21]

**FOR SALE: Icom SM6 Microphone** - 8 Pin round connection. Very clean IC-SM6 electret condenser desk microphone with windscreen. Lock switch works smoothly and positively. Used with any ICOM radio with the round 8-pin mic connector. Nice small footprint desk microphone. Asking \$75.00. **Cushcraft 6M Yagi A505S (?)**. *Don't know if it is actually a Cushcraft*, my dad was very handy at home brewing radio stuff. Five elements, 12 foot boom. Asking \$100. Selling these items for my father, W8JFQ (SK) was a member of PCARS. Paypal and Venmo accepted of course cash is always accepted. (prefer Venmo or cash, no fees). Can and will provide pictures if asked for.

**Contact: Bob, W8RID** email: [davet102@roadrunner.com](mailto:davet102@roadrunner.com) [08/02/21]

**FOR SALE - FT-7800R Dual Band Mobile**, TX 50W on 2M, 40W on 70CM, Receive from 108 to 520 MHz (cell blocked), 1055 Memory channels, Used as base radio, never mobile. Includes RT Systems programming software and cable. All original boxes, power cord, mic, etc. Like new, \$250 **Comet DS-150S Discone Base Wideband scanner/receive/TX antenna**. Receive 25-1300 MHz, TX 6M/2M/440/900/1200 MHz. Gain-Unity/2/4dB, UHF connector. All Stainless, excellent condition \$60.00

**Contact: John, W8JJW** by phone at: 330-842-3619 [07/02/21]

**FOR SALE: Ham Radio Repair Closed after 50 years** - I have tons of good parts for Drake, Collins, Swan, Hallicrafters, Heathkit, etc. Call for info is best too much to list. **Collins S-line, 75S-3C receiver, 32S-3A transmitter, 312B-4 console, 516F-2 power supply** (restored) - \$3500, with extras! **Collins KWM-2A transceiver, 312B-5 VFO console, 516F-2 powers supply** (restored) - \$2500 with extras! **Collins reproduction 5-way antenna / radio switch** 1200 watt rated - \$300 **Drake 2-Model AC-4 power supplies** - \$200 / each all re-built with new Heathkit Shop AC-4R boards, three-wire AC cords, "VOX" relay RCA jack. **Swan 117XC power supply / speaker** - \$200, re-built with new board. **AMECO PT-3 transceiver pre-amplifier** 1.8 to 54 MHz, RF switching installed - \$100.

**Contact: Jeff Covelli, WA8SAJ** by phone at: 440-951-6406 [06/02/21]



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: [07/02/21] indicates the ad will run until July 2, 2021.



## 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!!



## Sears - Ham Radio - 1940

In the old days, Sears sold everything - even Amateur Radio gear

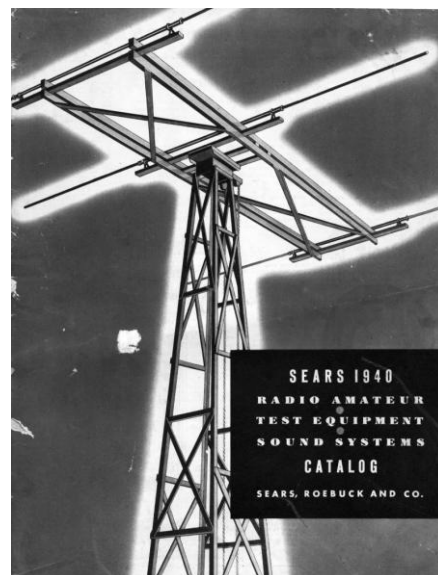
I wonder how much of this equipment was re-allocated to the military in December 1941?

I bet there is an old warehouse somewhere that Sears forgot about long ago that still has a number of these items in old dusty boxes....

Theoretically something that cost \$100 in 1940 would cost about \$1878 today.

Check out this Amateur Radio catalog from 1940:

<https://www.waynekirkwood.com/forum/php/viewtopic.php?f=12&t=873&p=10250&hilit=sears&sid=ee29997ffec491c6a7741d5a68843792#p10250>





## Field Day 2021



**Tony, WA8AR**  
Field Day Chairman



This year Field Day is back, and will be held June 26/27!! Field Day is, without a doubt, the largest operating event for PCARS every year. Traditionally for PCARS, Field Day has also been a major social event. Even though the state health orders were rescinded on June 2<sup>nd</sup>, this year's Field Day will still lack some of our traditional social activities (no big dinner or breakfast!!) We will continue to concentrate our efforts on practicing our emergency operating skills while competing with other clubs. Our goal is be #1 in the US in our operating class (Class 4A). We came very close to achieving that goal back in 2019 .... We can do it this year! There will be plenty of opportunities for club members to operate or log during FD and/or to volunteer to help set stations (antennas) before FD and tear everything back down when it is all over. We will be returning to the Freedom Township Park again this year as our Field Day operating base.

During the next few weeks, station Captains for 40 meter phone; 20 meter phone; Flex Station (phone, digital, CW); dedicated CW station, and the VHF station will be putting out requests for operators/loggers to fill their operating schedules. See the PCARS website for Flex and 20m station schedule openings. In addition we will be looking for volunteers to help setup and tear down. Whether you want to operate in the biggest Ham Radio annual contest or help erect antennas for 5 stations (in less than 2 hours) this will be a great experience for everyone who participates. We can't do it without YOU!! Stay tuned for much more information and requests for help over the next couple weeks.

Jim, AC8NT, will have a 10m Get-On-The-Air (GOTA) Station set up for Technicians and even not yet licensed wishing to try their hand at operating a Ham Radio Station one Field Day. Stay tuned for QST announcements about the GOTA Station.

Remember that, first and foremost, Field Day is a national simulated emergency communications drill. What we will do on June 26/27 is exactly what we would have to do in the event of a major national disaster. The FCC and Homeland Security already recognize the fact that when all other communications systems get knocked out, Amateur Radio could be the last communications network still operational.

Note that all of the rules governing ARRL Field Day can be found on the ARRL website.

## Field Day 2021 - CW Station



**George, K3GP**  
CW Station Captain



**CW OPERATORS NEEDED FOR FIELD DAY**

PCARS Field Day - Hope to see you there!

## Field Day 2021 - VHF Station



**Mike, KB8TUY**  
VHF Station Captain



The VHF station will be operating 24 hours during field day. The main operators will be Ron, W8AHC on digital and Mike, KB8TUY on SSB. Bob, N8QE will be coming in to run CW. Ron and I will coordinate our transmissions to stay within the rules. We don't have a schedule because VHF is so erratic. Most of the time we're waiting for the band to open.

## Field Day 2021 - 40 Meter Station



**Ed, K8IV**  
40 Meter Station Captain



Hello all, it seems forever since we've been involve with Field Day, at least as a true Club Event!

I know it has only been one year off but think about it, that's huge; I mean Field Day is the biggest event most Amateur folks get involved with yearlong. Sure we all had a chance to do Field Day from home last year and for me it was pretty dang easy. Normally I am bringing out 2 to 3 trailers full of stuff to help PCARS get on the air. Geez staying home was really so super easy but I did put forth a little effort, I think like 1000 Q's but it just wasn't the same without all of the work, comradely hanging out with our fellow PCARSians .

The 40 Meter Station will be a Phone station as always. For safety we will be limiting involvement in the station to operators and some loggers and hoping for assistance setting up. The 40 meter station will be utilizing a 70 foot tall support and employing an inverted Vee at the apex as usual, that inverted Vee will be looking East and West. The station will be in an enclosed trailer, a bit different from the past as it is a bit bigger, affording a little bit more caution. There will be a solar generator charging batteries being used for the first part of the contest, this will provide for that special initiative.

Good luck to all and most of all have **BIG FUN!**

DAY	TIME	OPERATOR
SAT 27 JUN	14:00 - 17:00	Ray - ND8L
	17:00 - 20:00	Mel - K8KSU
	20:00 - 21:00	Ray - KD8DFL
	21:00 - 00:00	Jack - N8BI
SUN 28 JUN	00:00 - 03:00	Ray - KD8DFL
	03:00 - 06:00	Ed - K8IV
	06:00 - 09:00	John - N8GIE
	09:00 - 12:00	Ray - KD8DFL
	12:00 - 14:00	N8GIE / K8IV



## Field Day 2021 - Flex Station



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



Just about thirty days, literally less than a month separates you from grabbing a chair to operate at the Flex Station for PCARS annual Field Day event! The Flex Station still has five openings on its schedule and can REALLY use your help for those last spots. Remember that the Flex station has – well – flexibility on both modes and bands used so check out the attached schedule to book your time for a **K8BF - BIG FUN** time at Field Day.

I plan to conduct a Zoom meeting in June to demonstrate the N3FJP logging program, and to demonstrate how to log both fldigi and FT8/FT4 directly to N3FJP. I will post the announcement of this meeting by QST, and also by e-mail to the Flex Station sign-ups. Check the PCARS Web Site in the Field Day tab to see the most up-to-date schedule for Flex.

We really want to make our in-person Field Day comeback a big success but we need YOU to step up to volunteer to operate! If you are interested in operating, logging, or helping with setup and tear down, please send me an e-mail to [k8cav.coms@gmail.com](mailto:k8cav.coms@gmail.com) . Thanks!

DAY	TIME	MODE	OPERATOR - LOGGER
SAT 27 JUN	14:00 - 16:00	10M, 15M PH or DIG; 40M DIG *	Jim - AC8NT
	16:00 - 18:00	10M, 15M PH or DIG; 20M DIG *	
	18:00 - 20:00	10M, 15M PH or DIG; 20M DIG *	
	20:00 - 22:00	80M PH, CW, or DIG	
	22:00 - 00:00	80M PH, CW, or DIG	Gene W8NET - John KE8MXR
SUN 28 JUN	00:00 - 02:00	80M PH, CW, or DIG	
	02:00 - 04:00	80M PH, CW, or DIG	
	04:00 - 06:00	80M PH, CW, or DIG	Rick KD8WCK - Mara KE8KBJ
	06:00 - 08:00	80M PH, CW, or DIG	Andrew - KE8BWA
	08:00 - 10:00	10M, 15M PH or DIG; 20M DIG *	Gene - W8NET
	10:00 - 12:00	10M, 15M PH or DIG; 40M DIG *	
	12:00 - 14:00	10M, 15M PH or DIG; 40M DIG *	

FLEX and CW to cooperate on 20M and 40M to insure that both are not on the same band at the same time

\* 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.



## Field Day 2021 - 20 Meter Station



**Mike, N8WCP**  
20 Meter Station Captain



Field Day is just a few weeks away and we still need a few ops to fill out the schedule. The 20M station will operate primarily phone but we'll have the option to work FT4 digital in the late night hours if band conditions don't favor phone operation.

I'm looking forward to a successful field day and that requires filling the operating schedule. If you're interested in working field day, helping set up, or have questions, please send an email to: [n8wcp.us@gmail.com](mailto:n8wcp.us@gmail.com).

DAY	TIME	OPERATOR
SAT 27 JUN	14:00 - 16:00	Mike - N8WCP
	16:00 - 18:00	Dave - KC8LSX
	18:00 - 20:00	Greg - KA8TOA
	20:00 - 22:00	Chuck - W8PT
	22:00 - 00:00	
SUN 28 JUN	00:00 - 02:00	Paul - KE8EGF
	02:00 - 04:00	
	04:00 - 06:00	
	06:00 - 08:00	
	08:00 - 10:00	Mike - N8WCP
	10:00 - 12:00	Greg - KA8TOA
	12:00 - 14:00	Tim - W8GPN



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

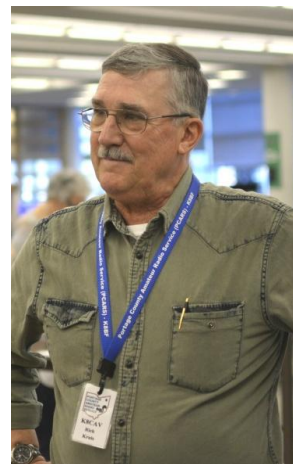


## Portage County Park District Headwaters Race

***Rick, K8CAV***

Portage County Coms Unit Commander

The Portage County Park District is holding its annual Headwaters Adventure Race on **Saturday July 10<sup>th</sup>** from approximately 8:00 AM to Noon. The three event race starts and ends in the Mantua Village Park in northern Portage County. We are providing amateur radio operators at points throughout the course to provide information to the race director and emergency communications if needed.



I still need two or three radio operator volunteers to help out with this event. Even if you're new to amateur radio or to participating in public service events, I encourage you to volunteer, and of course experienced radio operators are wanted as well. If you're interested, please send me a note to [k8cav.coms@gmail.com](mailto:k8cav.coms@gmail.com).

## Amateur Contact Log - Version 7.0

***Scott, N3FJP***

Scott, N3FJP, announces the availability of *Amateur Contact Log 7.0*, with the following features/improvements:

- Easy, direct, integration with *WSJT-X*
- Support for the 13 Colonies annual event
- States lookup for DX spotting (and *WSJT-X*)
- Support for the free HamDB Callbook Lookup service (which includes USA, Canada and a few other countries)
- Grid is now returned with the free callbook lookup service (grid is already provided in most other callbook lookup options)
- Right-clicking on the main form's Spot Last button provides the opportunity to add a comment



Other N3FJP programs have also been updated:

- *ARRL RTTY Roundup 3.9* (which also supports FT Roundup)
- *CQ WPX 4.9* (not *WSJT-X* applicable, but you can enjoy the rest of the enhancements in next week's CQ WPX CW contest)
- *Field Day Log 6.6*
- *VHF Log 6.6*
- *World Wide Digi DX 1.2*

For more information, see the [announcement](#), or visit the [N3FJP website](#).



## Forgotten Treasure

**John, KD8IDJ**

ARRL Ohio Section  
Public Information Coordinator



Cleaning out my dad's shop these past few months has uncovered some of the forgotten pieces of ham radio we used as kids and a few surprises!

Dad was the one that got me interested in electronics even though he never made the jump to ham radio. As an Aeronautical and Mechanical engineer he took some electronic courses at MIT and then passed along the books to me! I was reading schematics before I could spell!!



But over the years, unknown to me, he was buying stuff he thought I might be able to use. Today we would call that stuff "junk" but as I peel back the layers I'm finding things he bought, placed carefully on a shelf, and just never had the time to give to me.

All of the good stuff is there... tubes, wires, volt meters of all kinds, connectors, soldering irons so big you could weld tanks together, and some stuff I have never seen and still trying to figure out. I collect old telephones and found boxes of phones and parts, cable, cords and line test sets that generate hundreds of volts in one crank. Yes...I shocked myself trying them out! Also, TOOLS....all kind of tools I can use to cut wire and punch a 3 inch hole in a radio chassis!!!!

It's been a wonderful, emotional and draining experience trying to figure it all out and I've got several more months to go! For the time being I won't need to go to a hamfest... I have my own in my dad's shop. Maybe he planned it that way knowing that for the past two years there wouldn't be any opportunities to "get junk".

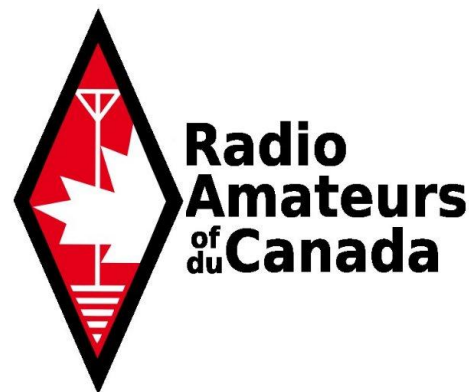
The good news in all of this... I now have stuff to leave my family from the their grandfather... not to mention the stuff I have to leave from MY shop! It should be great picking for generations to come... all because of Amateur Radio!





# RAC Canada Day Contest

## *Radio Amateurs of Canada Invites Participation in the RAC Canada Day Contest*



Here's a chance to enjoy an operating event that is not on a weekend. Help Canada celebrate its birthday on the air during the RAC Canada Day Contest on Thursday, July 1 - just a few days ahead of Independence Day in the US. Canada Day is the anniversary of Canada's confederation, when the three colonies of Canada, Nova Scotia, and New Brunswick united into the Dominion of Canada on July 1, 1867. The RAC Contest Committee is asking all participants in the 2021 Canada Day Contest to follow guidelines provided by the government and by health officials in their respective areas for any multi-operator categories.

<https://www.rac.ca/contesting-results/>

The Canada Day Contest begins on July 1, 0000 UTC (the evening of Wednesday, June 30, in North American time zones) and continues through 2359 UTC. Bands include 160, 80, 40, 20, 15, 10, 6, and 2 meters, CW and phone (SSB, FM, AM, etc.). Stations in Canada send signal report plus province or territory. VE0s and stations outside Canada send a signal report and a serial number. Contacts with stations in Canada or VE0s are worth 10 points. Contacts with stations outside Canada are worth 2 points. Contacts with RAC official stations - all have RAC as the suffix - are worth 20 points. Stations may be worked once on each mode on each of the available bands. CW contacts in conventional phone subbands are not allowed, nor are phone contacts in the conventional CW subbands.



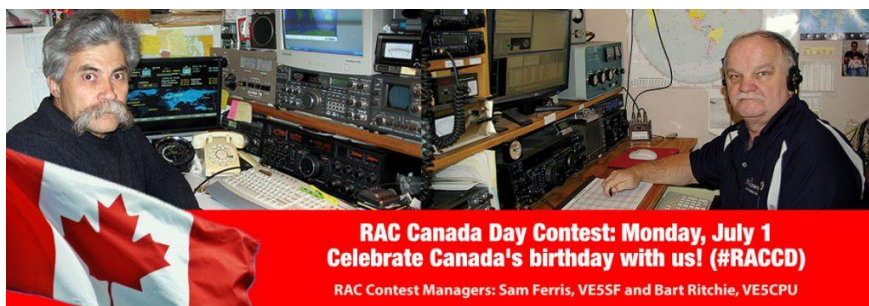
Canada's 10 provinces and three territories serve as multipliers for the event.

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**RAC Canada Day Contest: Monday, July 1  
Celebrate Canada's birthday with us! (#RACCD)**

RAC Contest Managers: Sam Ferris, VE5SF and Bart Ritchie, VE5CPU

## Hamfest Calendar



HAMFESTING: This continues to challenge all of us as many clubs are making their best efforts to return their hamfests to the calendar. Several swaps were postponed or cancelled, but some clubs are adjusting their timetables and setting their hamfests up with different configurations and planning them for dates later in the season.

For the latest detail on regional hamfests, check the ARRL web page at: <http://www.arrl.org/hamfests-and-conventions-calendar> .

Please note that all are subject to change, so stay current by checking the sponsoring club's web page before making your travel arrangements.

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**07/10/2021 - MANSFIELD Mid-Summer Trunkfest** - Location: Richland County Fairgrounds - 750 N. Home Road - MANSFIELD, OH 44901 - Website: <http://WWW.IARC.CLUB> - Sponsor: Intercity Amateur Radio Club - Public Contact: Danny Bailey , W8DLB - 70 Euclid Street Shiloh, OH 44878 - Phone: 419-541-8557 - Email: [W8DLB113@GMAIL.COM](mailto:W8DLB113@GMAIL.COM)

**07/17/2021 - NOARSFEST** Location: Elyria, OH Sponsor: Northern Ohio Amateur Radio Society Website: <http://noars.net> .

**08/07/2021 - ~~CANCELED~~ - DX Engineering Hamfest** - Location: **DX** Engineering/Summit Racing - 1200 Southeast Ave - Tallmadge, OH 44278 - Website: <http://dxengineering.com> - Sponsor: **DX** Engineering - Public Contact: Teri Grizer , K8MNJ - Phone: 330-630-7520 - Email: [tgrizer@dxengineering.com](mailto:tgrizer@dxengineering.com)

**08/07/2021 - 2021 Columbus Hamfest** - Location: Grove City, OH Sponsor: Aladdin Shrine Audio Unit Website: <http://columbushamfest.com> .

**09/26/2021 - Cleveland Hamfest** - Location: Cuyahoga County Fairgrounds - 164 Eastland Road - Berea, OH 44017 - Website: <http://www.hac.org> - Public Contact: Mathew Nickoson, KC8NZJ - PO BOX 201173 Shaker Heights, OH 44120 - Phone: 8002533378 (800-CLE-FEST) - Email: [kc8nzj@hac.org](mailto:kc8nzj@hac.org)

**10/2/2021 - Vette City/Great Lakes Convention**, Bowling Green, KY (more details to follow).

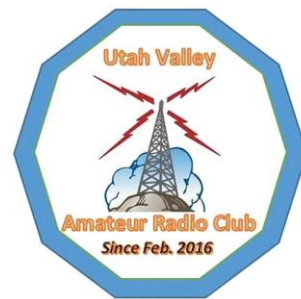
**10/31/2021 - Massillon Hamfest** - Location: Green, OH - Sponsor: Massillon Amateur Radio Club - Website: <http://w8np.or>

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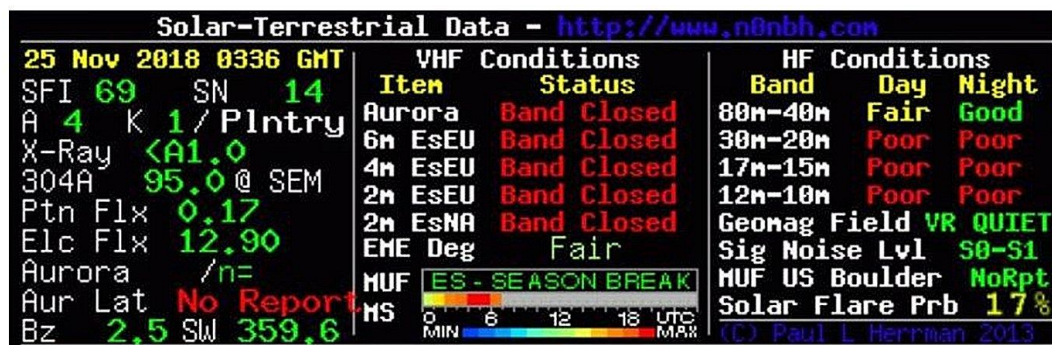
# Understanding the Band Conditions Banner

From the 'UVARC Shack' December 2018



The graphic of Solar-Terrestrial Data is created and produced by Paul Herrman, NØNBH, and I refer to it as the Band Conditions Banner. Many of us have seen this on websites, Face- book group pages, and even in magazines. But it occurs to me that most of us find much of the information presented on the banner over our heads. While not all of the banner information is immediately relevant, I'd like to take a few minutes to decipher the contents, based on the field names it presents, grouped here more by function than appearance in the banner.

This article does not explain every detail of the Band Conditions Banner. For example, some versions of the banner display photographs of the solar surface through one filter or another, but I won't elaborate on them. For



the most part, I describe the left and right columns, plus some of the middle column of the above graphic. You can download your own free banner from Pau l's web site.

## The date and time

UTC The displayed date and time represent the last time the banner was updated at the moment your browser was last refreshed, in GMT (Greenwich Mean Time), which today is called UTC. So, in the above banner, the time equates to 24 Nov 2018 at 8:36 pm MST.

## SFI (70 = poor / 160 = good / 280 = fabulous)

Solar Flux Index The SFI (62.5 to 300), as mentioned in the previous issue of the UVARC Shack (Nov 2018, Brass Tacks), is the amount of solar radio noise measured at 2800 MHz (10.7 cm), and is updated daily. The SFI gives us an idea of how well the ionospheric F-Layer can support radio communication on HF, and more especially on 20 meters through 10 me- ters. Numbers below 75 are quite poor, while those above 160 are very good.

## SN (2 = poor / 90 = good / 220 = fabulous)

Sunspot Number The SN (0 to 250) is a calculation that is roughly 10 X the number of sunspot groups facing us + the number of individual sunspots facing us, and is updated daily. The SN typically follows the SFI, and offers another indicator of F-Layer ionization.

## 304A (80 = poor / 150 = good / 240 = fabulous)

304 Angstroms The 304A (0 to unknown) is the relative strength of total solar radiation in the UV (ultraviolet) range, originating primarily from ionized Helium in the Sun's photosphere, and often follows the SFI value. The designation following the 304A value (@ EVE, @ SOHO, @ SEM) indicates the instrument used to take the measurement, and the value is updated hourly.

**A Plntry (4 = calm / 40 = minor storm / 80 = severe)**

A, planetary The Ap index is the daily average long-term stability of Earth's magnetic field, the subscript 'P' meaning planetary, or averaged from several locations around the earth. The value ranges from 0 to 400, with anything over 100 indicating unfavorable conditions for radio propagation, and is updated once daily.

**K Plntry (1 = calm / 5 = minor storm / 7 = severe)**

K, planetary The Kp index is the daily average short-term stability of Earth's magnetic field, the subscript 'P' meaning planetary, or averaged from several locations around the earth. The value ranges from 0 to 9, with anything over 5 indicating unfavorable conditions for radio propagation, and is updated once daily.

**Geomag Field**

Geomagnetic Field Relative label of the Earth's magnetic field activity, reflecting the Kp index. Labels include INACTIVE, VR QUIET, QUIET, UNSETTLED, ACTIVE, MIN STORM, MAJ STORM, SEV STORM, and EX STORM, in order of disruptive impact on radio propagation, and is updated every three hours.

**Bz (20 = good / 2 = ok / -2 = not ok / -20 = disruptive)**

B sub Z Interplanetary magnetic field vector (strength and direction) perpendicular to the plane of Earth's orbit, with positive values enhancing Earth's magnetic field and negative values canceling it. Values range from 50 to -50, updated hourly.

**X-Ray (A1.1 = good / C5.0 = moderate / X2.3 = severe)**

X-Rays X-ray emissions most heavily impact the ionospheric D-Layer, such that the stronger the radiation, the lower the ability of radio waves to propagate by skywave refraction. The intensity of X-ray radiation striking the atmosphere, ranging from A0.0 to X9.9, is defined by a class (A, B, C, M, and X), followed by a logarithmic quantity (0.0 to 9.9) that defines the intensity within the class, updated eight times a day.

**Ptn Flx (0.10 = good / 2.0 = moderate / 20.0 = heavy)**

Proton Flux Density of protons in the solar wind, such that the higher the value, the greater the impact on the ionospheric E-Layer. Values range from 0 to unknown, updated hourly.

**Elc Flx (<1000 = little impact / >1000 = heavy impact)**

Electron Flux Density of electrons in the solar wind, such that the higher the value, the greater the impact on the ionospheric E-Layer. Values range from 0 to unknown, updated hourly.

**SW (100 = good / 500 = moderate / 700 = disruptive)**

Solar Wind Average speed of solar wind particles in km/s, with figures greater than about 500 impacting HF communication. Values range from 0 to 1000, updated hourly.

**Aurora (1/n=1.99 : weak ... 6/n=0.8 : moderate)**

Aurora Possibility Relative strength in GW of ionospheric F-Layer, affecting DX over polar regions, such that the stronger the ionization, the greater chance of aurora at lower latitudes. If populated, values range from 0 to 10++ (over the normalization factor, such that  $n < 2.0$  shows a high confidence, and  $n > 2.0$  shows a low confidence), updated every 15 minutes.

**Aur Lat (70 = weak / 60 = moderate / 50 = strong)**

Aurora Latitude Lowest estimated latitude impacted by an aurora, in degrees N Latitude. Values range from 67.5 to 45.0 or No Report, updated every 15 minutes.



## On the Road Again - in California

**Matthew, KN4GWY**



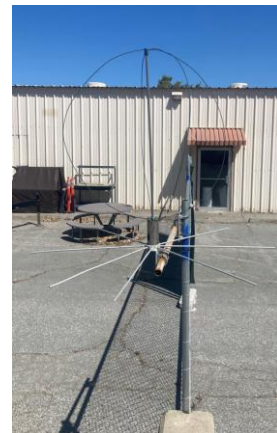
In this Covid time there is nothing like a road trip to visit a closed Ham Shack. I am working at Moffett Field in California, the home of NASA Ames Research Center, the



world's largest wind tunnel, and three Airship or Blimp hangars. I am working in Hangar 2. In my photos you can see Hangar One which has had its outer cladding removed, this is the same design as the Akron Airdock, it was built in the 1930's.

The club is NA6MF and its sign says visitors welcome so I will keep trying .

The outside of the Club site has a very interesting pile of what must have been research project antennas and a very good looking portable tower.



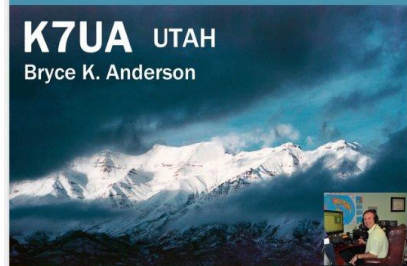
## The New DXer's Handbook

K7UA, Bryce Anderson, has rewritten his "*The New DXer's Handbook*".

This is the third edition. The "**still free**" online booklet has been updated and expanded. [www.k7ua.com](http://www.k7ua.com)

"The New DXer's Handbook"  
Third Edition - 2021

**K7UA UTAH**  
Bryce K. Anderson



By Bryce K. Anderson  
K7UA

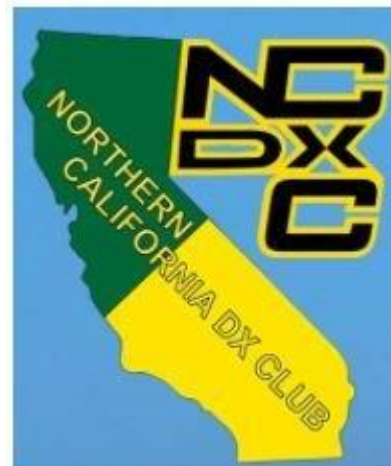
## Virtual Visalia - 2021

*John Miller, K6MM*  
*Rich Seifert, KE1B*

The first-ever virtual 2021 International DX Convention was held on May 15/16, 2021. A total of 1,664 DXers from 62 different countries stopped by to listen to our great panel of presenters and vendors. We hoped you felt it was a worthwhile experience!

### Video Presentations

If you missed any of the presentations, videos can now be accessed on the NCDXC website: <https://ncdxc.org/idxc-2021/>



## Virtual Contest University 2021

### Contest University

*Tim, K3LR*

Virtual Contest University 2021 was held on May 20, 2021 and for 2021 Hamvention® Forums on May 21, 2021. Both events were held live through Zoom Webinar and were **free**.

### CTU 2021 via Zoom:

Here is the YouTube link to all presentations: <https://www.youtube.com/watch?v=q-esob7BPtc>

<https://www.contestuniversity.com/files/>

- WW2DX – “Cloud Contesting – Live Demonstration”
- W3LPL – “Preparing Your Station for Competition”
- M0DXR – “Contest Categories – Make the Most of Your Entry”
- DK6SP – “Youth – the Future of Contesters”
- UA9BA – “Contesting from Russia”
- CT1BOH – “There is Nothing Magic About Propagation”
- NC0B – “Transceiver Performance for the HF Contest and DX Operator”

Hamvention® 2022 Forums: Here is the YouTube link to all the forum presentations:

<https://www.youtube.com/watch?v=DZhL979mgas>





## WSJT-X 2.4.0 - Includes Q65 Mode

*Joe, K1JT*

WSJT-X 2.4.0 Achieves General Availability! Here's part of the announcement from Joe, K1JT: "We are pleased to announce the General Availability (GA) release of WSJT-X version 2.4.0, which includes the new digital mode Q65. Q65 is designed for two-way QSOs over especially difficult propagation paths, including ionospheric scatter, troposcatter, rain scatter, TEP, EME, and other types of fast-fading signals.

Details and recommendations concerning the Q65 sub-modes are provided in the "Quick-Start Guide to Q65", available [here](#)." For the complete announcement, see the [WSJT-X website](#).



## Hara Arena - Now a Pile of Rubble

The former Dayton Hamvention® Venue Hara Arena is now a pile of rubble. Hara Arena originated as a ballroom in 1956. Dayton Hamvention® began using Hara Arena in 1964, when the main 5,500-seat arena was built. Six buildings were added later.

Over the years, Hara Arena was home to sports teams, concerts, conventions, and social activities.

It closed in August 2016, due to ongoing financial issues and a 20-year-long legal fight over the unresolved estate of founder Harold Wampler. Eventually a new owner was found.



In May 2019, Hara was severely damaged by an EF5 tornado and considered not worth rebuilding. The building's iconic logo as well as bricks from the structure were to be auctioned for charity. The site has since been cleared for redevelopment, and only piles of rubble remain of the original Hara Arena facility.

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**Exploring Hara Arena in Trotwood** | Everything Left! | Abandoned Ohio 64,177 views - Dec 22, 2017 - [https://www.youtube.com/watch?v=wBPVB\\_xnJnU](https://www.youtube.com/watch?v=wBPVB_xnJnU)

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**Exploring Hara Arena after the Tornado** | Abandoned Ohio (2020) 13,527 views - Sep 24, 2020 - <https://www.youtube.com/watch?v=sW-QXXIAVAk>

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# DigiFest 2021

Do you enjoy digital modes? Ready to warm up the atmosphere with the power of your transmitter? Are you ready to compete?

If your answer is yes, then RigExpert has good news for you.

For the last 12 years, RigExpert has been holding the DigiFest contest with very valuable prizes! This June 5 and 6 we are waiting for you on the air! Get your equipment ready, tune your antenna and get your prizes!

The contest rules are at <https://rigexpert.com/digifest/rules>. If you have a mobile phone and an account on Facebook or Instagram, then take photos and videos while operating DigiFest and post them with the hashtag #digifest2021 and a mention of @RigExpertUkraineLtd (for Facebook) or @rig\_expert\_ukraine\_ltd (for Instagram). Those who have fulfilled these simple conditions will be in the running for the additional prize raffle.



## PERIODIC TABLE OF MAJOR AMATEUR RADIO CONTESTS

Start Day (UTC) → 1 → 3 → End Day (UTC)  
Start Time (UTC) → 0000Z → 2359Z → End Time (UTC)  
Contest Name → Major Contest of weekend

# 2021

Multimode off-the-air CW SSB Digital VHF/UHF

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2 1800Z ARRL RTTY Roundup	3 2400Z NA Sprint CW	7 0400Z ARRL DX SSB	7 2400Z SP Polish DX	3 1500Z 7QP/IN/DE New England QSO Parties	1 varies SEANET Contest	2 1200Z Marconi Memorial HF	3 1400Z NAQP CW	4 1800Z CWops CW Open	8 0600Z California QSO Party	2 2359Z ARRL SS CW	3 2100Z ARRL 160
9 1800Z NAQP CW	10 0600Z WPX RTTY	13 0000Z NA Sprint RTTY	14 2400Z JIDX CW	14 0000Z CQ-M DX	10 0700Z ARRL June VHF	11 1300Z IARU HF	14 1200Z WAE CW	15 2359Z WAE SSB	11 0000Z Oceania CW	12 2359Z WAE RTTY	13 0000Z ARRL 10
16 1800Z NAQP SSB	17 0600Z ARRL DX CW	20 0000Z Russian DX	21 1200Z CQMM DX	17 0900Z King of Spain	18 2359Z All Asian CW	19 0000Z CQ VHF	20 2400Z NAQP SSB	21 1800Z WA/NJ/NH QSO Parties	22 0600Z Worked All Germany	23 1500Z ARRL SS SSB	24 1459Z RAC Winter
16 1900Z ARRL January VHF	18 0359Z CQ 160 SSB	26 2200Z WPX SSB	27 0000Z Florida QSO Party	28 2400Z Contest University Dayton Hamvention	24 1600Z ARRL Field Day	25 2159Z RSGB IOTA	26 1100Z WW Digi	27 1700Z CQWW RTTY	28 1800Z CQWW CW	29 0000Z HAPPY HOLIDAYS	30 2400Z HAPPY HOLIDAYS
29 2200Z CQ 160 CW	31 2159Z CQ 160 CW			29 0000Z WPX CW	30 2400Z WPX CW				30 0000Z CQWW SSB	31 2400Z CQWW SSB	



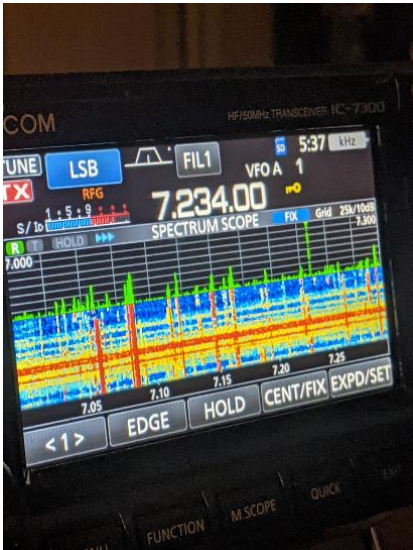
## ***"The Bands are Dead" - I Beg to Differ***

**Darcy, K4DQP**



It started with an e-mail from my friend, Steve (W3SPC). His e-mail stated that I had 'won' an all-inclusive three-day camping trip to Keowee-Toxaway State Park and my presence was requested for a couple of days of working remote, good food and a chance to play a little Parks-on-the-Air (POTA) by activating park K-3877. I secured the obligatory 'kitchen pass' and headed two and half hours north west of Rock Hill on Sunday afternoon. Upon arriving I knew this was going to be something special. Not only was the campground

nestled among the tall hardwoods of northwestern South Carolina, but Steve's camper was situated at the utmost peak of the campground atop the mountain about 1100'. Yes, believe it or not, South Carolina has mountains. Aside from work calls, writing SQL code and calls with coworkers while sitting at the picnic table, during the two days, this POTA activation can be summed up in one word...epic. This wasn't my first POTA activation. My first netted 78 contacts last summer at Tugaloo State Park in GA.



Using an OCF dipole and 100 watts and some strong encouragement from Steve to 'go for the kilo' (award for 1000 contacts from a single park), I managed to bring in incredible pileups from all over the county. I was getting signal reports from S9+10 to S9+40 from Wyoming and parts west. In those three days, I managed to log 47 of 50 states, numerous other POTA activators, and a whopping total of 965 confirmed POTA contacts on mostly 80, 40, and 20 meter bands.

A month later, we both headed out to Oconee State Park, again, using the off-center-fed dipole with 1700' of elevation, I managed to contact 49 states, numerous other POTA activators, and a whopping total of 1045 confirmed POTA contacts on mostly 80, 40, 17 and 20 meter bands.

Having numerous DX entities joining the pileups and calling me for a contact was about the most exciting thing I've experienced to date during my two activations.

First, the bands are not 'dead'. Bands conditions change throughout the year, we all know that. Bands also change during the day. Yes, there are better and worse working conditions caused by changes to solar activity, but that just means you may have to try another band, another antenna, or another time to operate. Second, having something interesting to do, say, or participate in gets people excited. If you are expecting to just call CQ from your home, well, all the best to you, but participating in POTA, a contest, a special event, or even a net will put new and unique contacts in your log. Also, calling from a vacation spot, or different antenna may be the ticket.

### **Parks on the Air Kilo Award**

Second, having something interesting to do, say, or participate in gets people excited. If you are expecting to just call CQ from your home, well, all the best to you, but participating in POTA, a contest, a special event, or even a net will put new and unique contacts in your log. Also, calling from a vacation spot, or different antenna may be the ticket.



Here's a few lessons learned from my POTA activations:

1. Going out and activating a park is fun but take a buddy along. It's much easier to hang an antenna, cook, swap operators, and enjoy the experience with someone else. The encouragement that someone else can provide is enough to make it through the massive pileups that seemed to never end.
2. Use the absolute best antenna you can. Every antenna is a compromise between size, operational capabilities, bands and so forth, but I can assure you that you won't be disappointed if you can get some wire in a tree and "Hang 'Em High". A simple wire dipole outperforms a vertical vehicle or ground mounted antenna any day of the week.
3. General knowledge of propagation (what time of day a band will open) is a huge factor. Calling and expecting for west coast stations when the band is not open will be disappointing at best. Do a little research before you go.
4. Set a few realistic goals for yourself. Whether it's time operating, number of contacts, number of states, bands, or countries contacted, make it a challenge. If you don't succeed, ask yourself why not. Don't just blame band conditions. It's likely there is something you can do better next time.
5. Be an ambassador for yourself and amateur radio. This is important. This includes using your manners, both-on-the-air and off. Whether it's parking, interacting with others in your location, noise, tripping hazards, general attitude, etc., you are ultimately an ambassador first for yourself and then for amateur radio. Pull up any POTA activation and listen to how different these operators are than the typical contester or radio lid. You will have such a better experience if you are thanking people for supporting your activation, whether it's the local park ranger (by letting him/her operate for a few minutes) or someone making contact with you. My personal goal is to have the contact on the other end to always know they are appreciated for taking time to contact me.
6. Finally, let people know what you are doing and seek feedback. Let people know when and where you will be. Take some pictures of your activity, update your QRZ page. E-mail the club and ask them to help you. If you are having trouble, call someone and ask advice. Contrary to popular belief, you don't know everything.

If you still think the bands are dead, go out and test it for yourself. You must put down the remote and pick up the mic. It may be as simple as changing the times of day you operate, or just a better antenna strung up in your back yard, a POTA activation, or some other kind of operating you need to convince you. It did it for me. I'll talk to you at my next activation.



Everything in this picture is now in your pocket.

## Cat Control



## Charlie the Tuner's HF High-Lites

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



### Greetings DXers:

Memorial Day has just past so we have had the unofficial start of Summer. The temps have been quite warm and I trust that many of you have been out working on antennas or laying radials, or getting your wire antennas higher up in the trees. Maybe you're digging a hole for a new tower. In any case, whatever you are doing, treat it as FUN in our hobby. Yup, it might be hard work, but you will enjoy the results when you can work DX, especially with the openings that have been happening now on a somewhat regular basis. Six meter e-skip has been giving SSB ops some real fun. And for you folks who like to hunt islands, you will find that I have listed a lot of IOTA activity for July. So let's see what is in store for the airwaves

Thanks to the Northern Ohio Amateur Radio Society, Northern Ohio DX Association, Ohio/Penn PacketCluster Network, the AB5K's AR Cluster Networks, NJ1Q & W1AW, NG3K & ADXO, W3UR & The Daily DX, W4VQ, K8YSE, W8GEX & 60m DX News, DL1SBF, DL7UXG & The DX News Letter, DXNews.com, DX-World.Net, F6AJA & Les Nouvelles DX, I1JQJ/IK1ADH & 425 DX News, OZ3ACB, Sixitalia Weekly, S58MU and VA3RJ & ICPO 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.

### June...

**5U, NIGER.** Adrien, F4IHM, is back on the air again as 5UAIHM and be active until June 27th. Activity is very limited, but he was heard this past week on 20 meters CW between 1800-2030z (watch between 14032-14040 kHz). QSL via F4IHM, direct or by the Bureau.

**8J, JAPAN (Special Event).** Seiji, JA2ATE, is now active as 8J2I to celebrates the 100th anniversary of the founding of Ichinomiya City until the end of February 2022. Most of the activity has been on 160-12 meters using FT8/FT4. All QSOs will be confirmed automatically via the Bureau.

**HB0, LIECHTENSTEIN.** Loick, HB9HBY, will once again be active as HB0/HB9HBY from the small village of Steg, Liechtenstein, between June 30th and July 4th. Activity will be on 160-10 meters, including 30/17/12m, using CW, SSB and FT8/FT4. QSL via EB7DX.

**II6, ITALY (Special Event).** A group of Italian operators have activated the special event callsign II6RI to commemorate the "75th Anniversary of the Italian Republic." On June 2, 1946, the Italians, and for the first time the Italian women, were called to a referendum to decide whether Italy should remain a monarchy, or whether it should be replaced by the republic. The latter won with 52% of the votes. That same day the Italian people were also called to elect a Constituent Assembly which had the task of writing the new Constitution of the nascent Italian Republic. Activity will last until June 30th. Operations will be on 160-6 meters using CW, SSB and the Digital modes (FT8/FT4, RTTY, PSK31 and PSK63). Diplomas and awards will be available. QSL via IK6IHU, direct, ClubLog's OQRS (preferred), eQSL, or LoTW. NO Bureau (at the moment). For more details, see QRZ.com.

**KH6, HAWAII (Update/Special Event).** Several Hawaiian Amateur Radio operators will activate the special event station K6K to celebrate "King Kamehameha the Great and Hawaii's Rich History" on June 11th, between 06:00am HST - (1600z) until 10:00pm HST (0600Z). Successful radio contacts are eligible to receive a special and inscribed a certificate



bearing the full-color rendition of K6K: King Kamehameha Celebration. This is not a contest. Stations should listen for K6K calling "CQ K6K". \* The main modes will be SSB, FM, FT-8, and Winlink. Other Modes may be added.

\* QSLs: eQSLs are available via LoTW. NO Paper QSLs. \* CERTIFICATES: Are self-printed (by you) for contacts with our Special Event Station. If you contact our Special Event Station, look up your callsign on the link. For more info see: <https://sites.google.com/view/k6khawaii>

## IOTA News...

**AS-200.** (Update/Date Change) Take, JI3DST, will once again be active as JI3DST/5 (mainly for DX and 6m Multi-Hop), JR8YLY/5 (mainly for JA) or JR8YLY/P for FT8 from **Shodo Island** between 0700z, June 19th, and 0000z, June 21st, and again between 0700z, June 26th, and 0000z, June 28th. Operation may vary due to heavy rain or other conditions. Activity will be on (possibly 80m)/40/30/20/17/15/12/10/6 meters using CW, SSB, RTTY and FT8 (possibly FM/RTTY). QSL JI3DST/5 via ClubLog's OQRS (direct or by the Bureau). QSL JR8YLY/5 via ClubLog (only Bureau).

**EU-042.** Mike, DG5LAC, will be active as DG5LAC/P from Hooge Island (DLFF-0013 Wadden Sea) between July 23-27th as Single-Op/SSB-Mode/12-Hrs/High-Power. Activity will be on SSB and FT8/FT4. He will also be in the RSGB IOTA Contest (July 24-25th). QSL via DG5LAC, direct, by the Bureau, LoTW, eQSL or ClubLog's OQRS.

**EU-057.** Operators Jef/DD2CW, Dirk/ON3UN, Ief/ON6KX and Roger/ON7TQ active as DD2CW from **Rügen Island** in the Mecklenburg-Vorpommern State Group between July 23-29th. Activity will include the RSGB IOTA Contest (July 24-25th) on SSB, but also look for operations on all bands on CW/SSB outside of the contest. QSL via the Bureau.

**EU-057.** Operators Hannees/DL9SCO and Ron/ON1DX will be active as DA2W from **Rügen Island** in the Mecklenburg-Vorpommern State Group between July 23-29th. Activity will include the RSGB IOTA Contest (July 24-25th) on CW, but also look for operations on all bands on CW/SSB outside of the contest. Listen for QSL info.

**EU-111.** (Update) Members of the Cray Valley Radio Society (G3RCV) will be active as GM3RCV from **Ceann Ear in the Monach Islands** between July 22-27th. Their plan is to be in the RSGB IOTA Contest (July 24-25th) as a Multi-2/Low-Power entry signing MM8C. QSL via LoTW and ClubLog's OQRS. The group plans to be active on the HF and VHF bands using CW, SSB and possibly the Digital modes. Operators mentioned are Pat/EI5IX, Chris/G0FDZ, Nobby/G0VJG, Tony/G2NF and Jamie/M0SDV. QSL both callsigns via Clublog's OQRS.

**EU-146.** Dirk, DL1KVN, will be active as PA/DL1KVN/P from **Tiengemetten Island** during the RSGB IOTA Contest (July 24-25th) as a Single-Op/Island-DXpedition/Mixed-Mode/Unassisted entry. QSL via ClubLog.

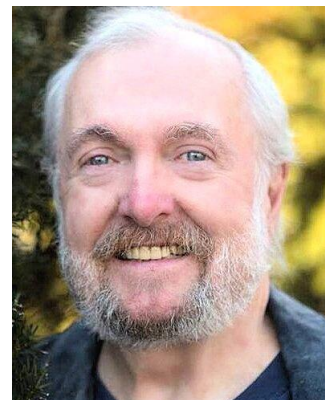
**NA-085.** Bruce, K5TEN, who usually activates **Dog Island** (WW. Loc EL79) every year in June as K4D, will be active this year between June 7-18th. Dog Island (USI FL005S, WW Loc.EL79), Florida, is an extremely rare IOTA because access is controlled by the 25 or so homeowners on the island. There are no hams on the island, and the only activations have been done by Bruce over the last 7 years. This year's activity will only be on 40-6 meters primarily on CW, SSB and FT8 Digital mode using 100 watts an ICOM 7100 into an off center fed dipole. Suggested frequencies are 7188/7035, 10120, 14260/14045, 18125/18075, 21280/21035, 28310/28010 and 50135/50095 kHz.

That's it for now. Keep your rigs warmed up. Get on the air and LISTEN. You will find DX to work.  
73 for now.



## Radio Frequency Exposure FAQ's & Calculator

**Ed Hare, W1RFI**  
ARRL Laboratory



Ed Hare and the ARRL Laboratory are the authors of this document with technical advice from Dr. Greg Lapin, N9GL, and the RF Safety Committee. Thanks to the Executive Committee for their contribution to the editorial process of this document.

Questions or suggestion for future inclusion in the FAQ should be directed to the **ARRL Laboratory** by email at [tis@arrl.org](mailto:tis@arrl.org). One of the ARRL Laboratory engineers will respond to comments by email.

The responsibility for updates to this living-breathing document will now pass the ARRL Laboratory staff under the direction of Ed Hare, W1RFI; and the RF Safety Committee under the lead of Dr. Greg Lapin, N9GL.

As ARRL members, we are indeed very fortunate to have such a great assemblage of truly gifted authorities in the field of RF Engineering.

Please be aware that updates might be very common as details come into better focus as the discussions between the FCC and the ARRL develop clarifications and recommendations.

Thanks again to Ed Hare, W1RFI, for the authorship of this FAQ.

The following downloadable information is a comprehensive  
RF Exposure Frequently Asked Questions (Version 1.3).

>> [Click Here for FAQ's and Calculator](#) <<

## 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.**

June	
3	KD8WCK
10	K8YLK
17	KE8BWA
24	N8AMY

July	
1	K8YLK
8	N8AMY
15	N8QE
22	K8CAV
29	KD8WCK

August	

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

# How to Build Your First HF Station



**Ward Silver, N0AX**  
From the DX Engineering Blog “On-All Bands”



First of all, congratulations on starting your first HF station! You will be joining a long tradition of Hams with roots in the spark era all the way through to the present day! You can use vintage gear or the latest transceiver—some tips and themes are common to a wide range of setups. This article will give you some advice to consider as your “shack” begins to take shape.

## In My Little Ham Shack

Did you ever wonder where the term “radio shack” came from? Believe it or not, that was a literal description of many early wireless stations. The rotary spark gap transmitters were noisy and even dangerous, so they were banished from the house, business, or officer’s quarters! Finding a home in an unused garage, shed, or quickly crafted shelter, the term “shack” was quite descriptive and became the slang reference for all stations, no matter how neat and clean.

## Typical First Stations

Really - what’s the big deal? Radio is radio, right? A typical home VHF station includes a power supply, a mobile or base transceiver, a power meter, and maybe an antenna switch. Is so much different at HF? The equipment might not be, but the signals and techniques are definitely different. The antennas are *definitely* bigger since HF signal wavelengths can be 50% to 1,000% bigger!

Just like on VHF, there is a tremendous amount of variation in equipment size and shape. Let’s make some simplifying assumptions about your first station:

**Transceiver:** 100-watt output, 160 through 6 meters, all-mode (no amplifier just yet)

**Power Supply:** 25- to 30-amp, 12-volt supply running from 115 VAC

**Antenna:** Wire antennas and/or multi-band vertical

**Computer:** Desktop PC with several USB ports and a good-quality sound card

**Accessories:** External antenna tuner with built-in wattmeter; audio interface for digital modes; antenna switch and dummy load

**Operating aids:** Boom set (headphone-microphone combination); comfortable desk chair

I am also assuming that you live in a building that you have authorization to modify and can make all the necessary grounding connections for AC safety and lightning protection.

## Basic References for All Stations

Two references that are a worthwhile addition to any station and especially for designing and building are the **ARRL Handbook** and the **ARRL Antenna Book**. They cover many topics with updates from acknowledged experts in the field. These are the “go to” guides and have been for many decades. You won’t regret having them on your new station’s bookshelf!

## Ergonomics

You’re going to be spending a lot of hours at the radio, so it’s important that you’re comfortable. Let’s say you decide to enter a weekend-long contest - you’ll spend as many hours at the station as there are in a work week! Many of the same principles apply to amateur stations as to good workplace practices. Take care of your back, your butt, your eyes, and your arms and hands - you won’t regret it!

*Tip:* Before you start spending money or drilling holes, why not visit some other stations? You can try out various configurations and see how they feel to you. Plus, you’ll get plenty of ideas about arranging equipment.



**Operating Table or Desk:** The surface should be at a comfortable height of 28–30". A minimum of 30" surface depth is required for the equipment to fit. Some people prefer to have their keyboard be a few inches lower and that would require a drop shelf. The surface should be deep enough for you to have at least 12" of arm rest in front of the radio's tuning knob. You'll be doing a lot more tuning on HF, so it's important to reach the radio comfortably.

*Tip:* If your horizontal space is limited, move up! Instead of a table or large desk, consider office workstations with extra shelves. Just keep the radio and everything you will be manipulating close to desk level so you don't have to reach too far for it.

**Operator Chair:** This may be one of your most important purchases! A good-quality, adjustable office chair is an excellent choice. It's becoming increasingly common to use one of the popular "gaming" chairs designed for long periods of video gaming action. If you get a chair with arms, be sure you can remove them if necessary. A few different chair pads will give you a change-of-pace for more comfort.

**Computer Monitor:** The monitor should be right in front of you and at a height that doesn't require looking too high or low, which causes neck pain. Place the monitor at a distance that won't cause eye strain, and consider getting a pair of computer glasses if you wear spectacles. In most stations, the monitor is the thing you'll look at most so make sure your eyes are comfortable, too!

**Headphones and Microphone:** Your radio will come with a hand mike but for long periods of operating, you'll want to get a **headset** (also known as a "boom-set") that combines the headphones and microphone. If at all possible, try out several models before making the purchase—don't wind up with an uncomfortable pair of "cans"!

### Good Practices

This section falls into the "I wish I'd thought of that before I..." category. The author has personally violated every one of these guidelines, so you don't need to ask me how I know these things!

One thing that nobody *ever* regrets is building your station so you can easily get behind and under the equipment to work on it! That makes it so easy to manage your cables and ground connections, compared to reaching around and over equipment, or worse, having to sit under the desk and reach up and around the back. If you can't see what you're doing, it's more likely you'll make a mistake, too. Casters or wheels on your operating table or desk will let you move it for access to the back.

Put the ground system in first! Building a first station is *exactly* the right time to put in a **ground plane** and an RF bonding bus. This makes it much easier to deal with heavy wiring to your ground system. If you add shelves, put in the ground plane and connections before you put any equipment on them.

Leave a little extra cable length. While you want to keep cables reasonably short so they pick up a minimum of RF, resist the urge to cut them at exactly the "right" length; some day you will want to rearrange your equipment to different locations on the desk. Make or buy cables with different lengths to have on hand when you do need to re-cable a connection.

Use common, standard DC power cables and connectors. I've standardized on properly crimped **Anderson Powerpole™ connectors**. Even for "wall warts," you can put a set of connectors on the cable to make everything interchangeable.

Shelves should be a lot sturdier than you think. Radios can be *heavy*! If you can't put in "two-by" (1-1/2" thick) shelves, plan for vertical supports between the shelves to hold them up. Otherwise you will wind up with a lot of saggy shelves that don't look very good at all.

Extra space is a great thing to have available. If you can, set up your station with extra length to make it easy to expand. Get the next longest table or desk. Another option is to pick up a small rolling table or cart for equipment that doesn't get used all the time or test equipment.

Along with extra space, think ahead and plan for your station to grow. If you have two antennas at the start, get a three- or four-position antenna switch. If you put in conduit or an access “hole” for cables, use the next largest diameter than currently needed, or install two entrances. Cap off an unused access or fill it with non-rusting stainless steel, copper, or brass wool or scrubbing pads to block rodents and larger insects.

Build your station adjacent to an exterior wall. That shortens all cables to the outside and simplifies construction of your single-point ground panel where surge protectors and lightning arrestors are mounted. It also keeps connections to any external ground rod as short as possible, which is important for low impedance.

Do a prototype first by using one of the many free software programs used for home design. Or make a scale “map” of the station with movable pieces of paper representing your equipment. You can move them around and make sure it all fits before doing any lifting or wiring.

### I Don't Know Why They Call It Wireless!

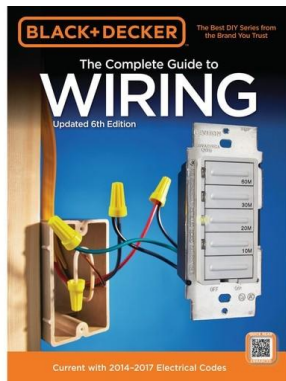
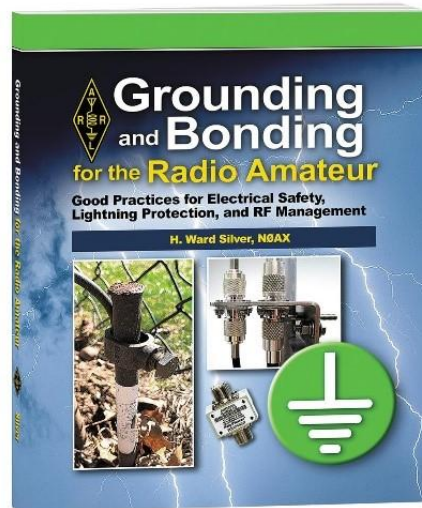
As your station grows, the number of cables and connectors will grow much faster than the number of gadgets. Use good-quality shielded cables for all audio and control signals and connect the shield to the outside of a grounded enclosure to avoid RF interference to or from your equipment. Provide strain relief for the smaller cables to avoid breakage. When you install a piece of equipment, label each non-obvious cable to avoid confusion and incorrect connections in the future.

Finally, remember as you go forward that everybody rebuilds their station more than once. Your operating tastes will change, your equipment will change, and so will your station preferences. Those “built in” stations look wonderful in the photos, but they are *awfully* hard to change!

### Grounding, Bonding, Safety

No shortcuts here! If you are not comfortable that you know what you are doing with electrical power or grounding, get a reference book to guide you. ***The Complete Guide to Wiring*** is an inexpensive reference book available online or at home improvement stores. It covers a wide variety of common installation tasks and will help keep you out of trouble. The author's ***Grounding and Bonding for the Radio Amateur*** brings a lot of information together about these important topics, defines terms, and gives suggestions for how to do it “right.” And don't hesitate to get professional services when necessary!

Make sure from the very beginning that all of your equipment is properly grounded for AC safety and lightning protection. This is the time to be sure you have good connections to your home's ground. When you install an external ground rod and a single-point ground panel, be sure all of your home's external ground rods are bonded securely together.



You won't regret running a dedicated branch circuit to power your station with a GFCI breaker. A dedicated 240 VAC circuit will allow you to install an amplifier someday. Build or purchase high-quality AC power distribution strips - trust me, you will need way more outlets than you think!

*Tip:* If your equipment will include a high-voltage power supply or tube equipment, it's a good idea to have a master switch near your station. Show your family and friends how to disconnect the power in case of an emergency.

Learn the difference between grounding and bonding. Plan to bond all of your equipment together by using heavy wire or copper strap. (That box of Romex scrap is full of excellent wire for grounding and bonding.) An RF bonding bus at the back of your equipment with plenty of attachment screws makes this easy. Install a ground plane, such as this one from DX Engineering, under your equipment if possible. A metal operating table or desk also works well for this purpose.



## Antenna Systems

Next to operator skill, the antenna system of an HF station is probably the most important factor in performance. There is no bigger bang for the Ham's buck than antenna system quality. By "system," I mean everything from the back of the radio to the radiating element. Signals lost here cannot be made up elsewhere. I usually counsel Hams new to HF to spend at least one-third of their budget on the antenna system, even trading off transceiver performance in favor of better antennas.

Let's start with the feed line. Most new HF station builders will use coaxial cable - don't scrimp on either the cable or the connectors. Assuming a fixed station, use a cable like **RG-213** or **DXE-400MAX**, even if you are running low power.



If you use parallel conductor feed line, get the type with the largest conductors. The lower losses do make a difference! Same with connectors - get **high quality connectors** and install them properly with the right soldering or crimping tools. If you don't already have a set of connector installation tools, it's worth investing in a set. You'll save the cost of ruined connectors and poor connections many times over.

If you aren't comfortable installing connectors, buy professionally-made cable assemblies from a reliable vendor you can trust with those precious signals!

At HF, those bigger antennas are more exposed to lightning and static, so build a sturdy entry panel that is bonded to a good ground system (see *Grounding and Bonding for the Radio Amateur* for a more complete discussion). When you build the entry panel for your antenna feed lines, make it bigger than you think you need. That will make it easier to work on, and you will have plenty of room for expansion. The feed line lightning protectors should mount securely to the entry panel.



*Tip:* Be aware that some models of lightning protectors block DC and others pass DC. If you plan on using a remote antenna switch or tuner, you'll need protectors that pass DC.

If you buy a commercial antenna, follow the assembly and installation instructions exactly. Use anti-oxidation compound on non-soldered connections. If you buy a used antenna, disassemble and clean it thoroughly first. Replace any rusted or corroded hardware with galvanized or stainless steel. For ground-mounted, ground-plane antennas, your **radial system** has a lot to do with how well your antenna will perform. Install a minimum of 16 radials that are approximately one-quarter wavelength long at the lowest frequency of operation. (They are not "tuned" to resonance: one-quarter wavelength is a rule-of-thumb for the point of diminishing returns.) K3LC wrote this *National Contest Journal* **article** on getting the most out of a fixed length of wire for radials.

Finally, learn how to waterproof RF connectors the right way as described in the *ARRL Handbook* and *ARRL Antenna Book*. A well-wrapped connection, using high-quality electrical tape like Scotch 33+ or Scotch 88+ and a vapor barrier of self-vulcanizing butyl rubber will last for years. Avoid silicone sealants unless the connection is intended to be permanent.

## Last Words of Advice

Take it from someone who has built a number of stations - large and small, fixed and mobile, permanent and temporary - take your time and try to do things right the first time. This is supposed to be fun, so don't waste your time and money in ways that will make you unhappy and frustrated later. Don't be afraid to ask for help and advice, either. You don't have to do this alone. Take advantage of the skills and experience your Ham friends will offer. And last but not least, don't compromise safety - *it's not a race*. We'd like to see you as a happy Ham for many years of enjoyment, service, and satisfaction!

Reprinted with permission from the DX Engineering On All Bands blog - [www.onallbands.com](http://www.onallbands.com)



## Getting on the Air - How to Avoid G.A.S.

**John, NJ4Z**

York County  
Amateur Radio Society



We all come into this hobby not knowing, what we don't know. Some of us purchase a radio before we take the test, some of us wait until we earn our ticket. Unless we are lucky enough to have an experienced Ham guide us into the hobby, most of us end up purchasing an inexpensive handheld. That is fine, nothing wrong with it, it is a means to an end. It gets you something to operate with and gets you on the air.

As we progress in the hobby, our goals change, skills improve and we begin to experiment with new equipment and modes. Once we earn our ticket, we quickly discover that a 5-watt handheld is fine for some things, but may not be footing the bill for what we are trying to do currently. We may have learned that to make contact we must exit our home, or the pizza pan/pie plate mag mounted antenna just doesn't cut it. We may have also discovered the joy of attempting to operate a handheld while driving, not an easy task in traffic.

Thus, begins the saga of acquiring gear. The handheld or multiple handhelds, and whip antennas become mobile rigs, mag mounts, 1/4 waves, 5/8 waves, etc. At the home shack we have a power supply, base antenna(s), cross-needle meters, desk mics, and so forth.



With so many choices of rigs, antennas and accessories, and being in experimentation mode, the equipment begins to pile up. At this point, a condition known as G.A.S. can occur; talk about sexy, right? What is **G.A.S.**, you ask? It is horrible, debilitating condition, **Gear Acquisition Syndrome** – the insane need to acquire gear at an alarming rate. This condition can cause our shacks to become cluttered, cause our bank accounts to drain, cause us to develop regret and possibly cause stress in our relationships. So, how do we avoid G.A.S.? No, it is not as simple as Tums or Gas-x. But there is hope, a simple yet deliberate three part solution. Planning, Budgeting and Research,

these are the keys to avoid

G.A.S., regardless of what piece of equipment you are purchasing.

**Step one of avoiding G.A.S., “The Planning”.** There are a few key questions to ask your self, what is the goal for any piece of equipment? If you building a base station, a mobile station or a portable-ops in a go box and buying a rig here are some great questions. What bands do I want to cover; HF, VHF, UHF? Do you want to operate on one of the digital modes, D-Star, System Fusion, DMR? Do you want to do SSB, Weak Signal (FT8/4), Work Satellites, EME (Earth-moon-Earth), Grid square chasing? All of these and so much more are possible just with a Technicians License. Maybe you are already down the road studying for your general and want a combined UHF/VHF/HF rig. The major step here is to decide what you want to do or may want to accomplish in the short term and write that down. Also make sure to include the must haves for your purchase.

**Step two of G.A.S. avoidance, “The Budget”.** Now we know what we are trying to accomplish, we need to set a budget. Everyone's lifestyle and disposable income is different. Do not, I repeat, DO NOT, try to compete with other Hams on purchasing gear. To steal a line and rewrite as my own, “Gear Envy leads to the dark side, Gear Envy leads to spending, spending leads to broke and broke leads to suffering. Grave danger



you are in, if you follow this path. Set a realistic budget for yourself, you know your finances better than anyone else. Quite frankly, if another ham runs down your gear, you are hanging out with the wrong hams. One other fine point, there is a rig for you at your price point. It may not be new, the latest and the greatest, with all the bells and whistles or it just could be the best on the market. All that matters is it gets your goals accomplished, that is the point.

**Step three of G.A.S. avoidance**, “The Research”. Now you know what you want to do, and you know what you can spend. You are off to the races looking at what is out there, new and pre-loved. Which bells and whistles are must haves? Check <https://www.eham.net> for reviews of gear, it is great place to start. eHam has a huge database of equipment reviews and most have several, if not tens and hundreds of reviews. QST and CQ magazine also do great in-depth product reviews. An ARRL membership really comes in handy here, so you can search the archives. YouTube has thousands of video reviews, keep in mind some those reviews can be biased, and are only one persons’ opinion of the gear. QRZ is also a good place to look for reviews of gear. The resellers websites, **DX** Engineering, Ham Radio Outlet, Gigaparts, R&L electronics, MTC, Buy Two Way Radios, etc. all have reviews by folks who have purchased the gear, and many do their own reviews in print and video. *NEVER, NEVER, NEVER* be afraid or hesitant to ask an Elmer, fellow club member, or other ham about their experience with a certain piece of equipment. We are here to help; It is what Ham’s do, we pass our knowledge down. It should be our goal as Hams to help others to have a joyful and successful journey in this hobby of ours.

Once you decide on a piece of equipment, purchase it and get it set up... one last step... read the manual to learn how to operate it, then “GET ON THE AIR.” We will be looking for you!!! Until the next time, Stay PASSIONATE about Ham Radio!!!!

## *Antenna Special Interest Group*

***Tony, WA8AR***  
Antenna SIG Coordinator



### **June 2021 Meeting of the Antenna Special Interest Group**

The June meeting of the Antenna Special Interest Group will be held on June 15<sup>th</sup>, 7:00 pm. This meeting will be the first in-person Antenna SIG meeting at the Club Site Radio Room in more than a year.

We will be continuing to offer Antenna SIG participation open to all through Zoom meetings run concurrently with the in person Antenna SIG. There should not be any COVID health orders to regulate in-person participation. I will probably have some common sense-common courtesy safety guidelines for those attending the ASIG in person. The safety of all attending in-person will be a top priority.

Our discussion will use a round robin format that will ensure all “attending” a chance to speak and get input from the group. We will do our best to include the Zoom attendees in any hands on demonstrations (this will be a work-in-progress).

The topics of antenna selection, design, and construction will be our main topics for discussion. However, as we have done in the past, anything Ham Radio related will be open for discussion.

## ***DX & Contest Special Interest Group***

***Chuck, W8PT***  
DX & Contest SIG Coordinator



We held our DX/Contest Special Interest Group meeting on Tuesday, May 25<sup>th</sup> via ZOOM. We had 12 members attend and we focused on the discussion of getting back into the club site to do some contesting.

The Kentucky QSO Party will be held on June 5 - 6 and it was not on the WA7BNM Contest Calendar that I use when announcing contests. So I missed discussing that one in our recent DX/Contest SIG meeting. The BIG activity going on in June is Field Day - June 26-27.

We all agreed that the Ohio QSO Party which takes place at the end of August (28-29<sup>th</sup>) will be held at the club site. It remains to be seen whether the additional event, our PCARS Bar-B-QSO Party, will take place at the same time. The higher ups are still mulling that over and it of course depends on what the state of Ohio is doing vis a vis Covid at that time.

Also in August are the Maryland-DX QSO Party and the Hawaii QSO Party, as well as the W/VE Islands QSO Party.

The ARRL June VHF Contest takes place on the weekend of June 12. So if you have 6m and 2m antennas, as well as other VHF capabilities, you may want to try your luck in this one. Check out the rules and get on the air. This one is usually slow paced so beginning contesters can get a good feel for contesting without being rushed.

See you on the air.

## ***Digital Special Interest Group***

***Rick, K8CAV***  
Digital SIG Coordinator



PCARS will be holding its monthly Digital Special Interest Group meeting on Tuesday June 1<sup>st</sup> at 7:00 PM. The meeting will be held both virtually using Zoom, and in-person, with restrictions at the club site. At this time, members attending in-person must have received both of their shots for COVID-19, or a single shot for the J&J COVID-19 vaccine.

The presentation for this month will be using fldigi to log field day contacts directly to N3FJP, to include configuring both apps to work with each other. I also hope to be able to do a similar presentation using WSJT-X (FT8 and FT4) logging directly to N3FJP but I may not have it ready before Tuesday.

As always we'll be available to help with any questions you may have, and to help with setup or configuration issues you might be having. Feel free to bring your computer. I hope to see you there!



## Portable Ops Special Interest Group

**John, KD8MQ**  
Portable Ops SIG Coordinator



Anyone who read my article in last month's issue of the Radiogram might get the impression that I'm somewhat obsessed with operating portable. Well, you aren't wrong. To me, operating portable is a way to level the playing field a bit. While operating from a park, my signal is just as weak as the next guys. Nothing pleases me more than to set up a station and make contacts from a Non-standard location.

Last month, I spoke to Nick about starting up a new SIG on the 2<sup>nd</sup> Tuesday of each month to talk about portable operating. Portable can mean a lot of different things. It does not necessarily mean QRP, though there are a lot of folks out there activating parks using Xiegu G90s, or Icom IC-705s. Both of these rigs are low power by design, the signals from these portable rigs can be pretty respectable. Portable can also mean getting on the air using 100 W from your FT-891, using an antenna setup that rivals your home station.



Some folks I've met in the POTA & WWFF communities are diehard CW operators. I doubt some of them even pack a microphone. But, there are plenty more who are running 100W SSB, or maybe even FT8. Mike, WB8ERJ in Mansfield, has been activating parks in POTA using 6 Meter FT8, and is successful at it. The point is that portable operating can be anything you want it to be.

So, we are going to kick this SIG off on June 8<sup>th</sup>, and continue each month on the 2<sup>nd</sup> Tuesday. The Portable Operations SIG will begin at 7 PM. Since all COVID orders are ending the week before, and Portage County has been downgraded to Orange, we have the go-ahead to meet in the club site. We'll also be available on Zoom. Watch your QSTs, and portcars.org for the latest information.

So, what are we going to talk about? There's lots of directions that we can go. How about if we start off this month with a show & tell/Q&A format? Then, we can decide where we want to go from there. Bring those portable rigs, or antennas, or some part of your station that you want to talk about. If you have questions, feel free to e-mail ([kd8mq1@gmail.com](mailto:kd8mq1@gmail.com)), or text (330-936-5021).

I'm looking forward to seeing you.



# PCARS K8BF

The Club that puts the FUN in Ham Radio!





## 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 72 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 now on YouTube. So, what does that mean? Hey, we have a new place to put all kinds of videos that are about PCARS for the world to see.



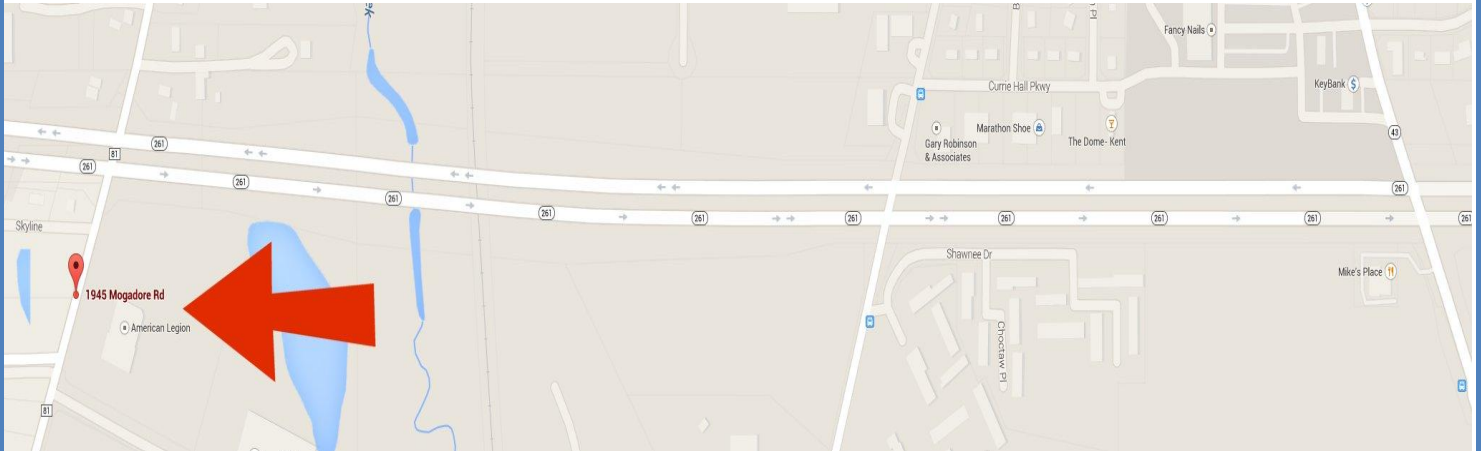
## PCARS Meetings

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



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

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



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



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



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

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



# Photos from the May Meeting

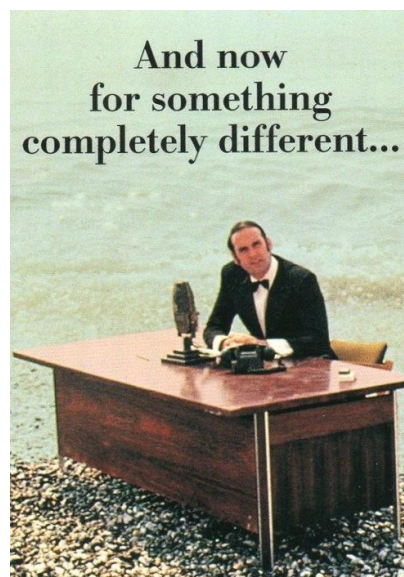




## Just for Fun

You may have seen some of these before - still fun!

- Don't be worried about your smartphone or TV spying on you. Your vacuum cleaner has been collecting dirt on you for years.
- If you can't think of a word say "I forgot the English word for it." That way people will think you're bilingual instead of an idiot.
- I'm at a place in my life where errands are starting to count as going out.
- I'm getting tired of being part of a major historical event.
- I don't always go the extra mile, but when I do it's because I missed my exit.
- My goal for 2020 was to lose 10 pounds. Only have 14 to go.
- I just did a week's worth of cardio after walking into a spider web.
- I don't mean to brag, but I finished my 14-day diet food supply in 3 hours and 20 minutes.
- A recent study has found women who carry a little extra weight live longer than men who mention it.
- Kids today don't know how easy they have it. When I was young, I had to walk 9 feet through shag carpet to change the TV channel.
- I may not be that funny or athletic or good looking or smart or talented, but... I forgot where I was going with this.
- I love approaching 80, I learn something new every day and forget 5 other things.
- A thief broke into my house last night. He started searching for money so I got up and searched with him.
- I think I'll just put an "Out of Order" sticker on my forehead and call it a day.
- Just remember, once you're over the hill you begin to pick up speed.
- Having plans sounds like a good idea until you have to put on clothes and leave the house.
- It's weird being the same age as old people.
- When I was a kid I wanted to be older...this is not what I expected.
- Life is like a helicopter. I don't know how to operate a helicopter.
- It's probably my age that tricks people into thinking I'm an adult.
- Never sing in the shower! Singing leads to dancing, dancing leads to slipping, and slipping leads to paramedics seeing you naked. So remember...Don't sing!
- If 2020 was a math word-problem: If you're going down a river at 2 MPH and your canoe loses a wheel, how much pancake mix would you need to re-shingle your roof?
- I see people about my age mountain climbing; I feel good getting my leg through my underwear without losing my balance.
- So if a cow doesn't produce milk, is it a milk dud or an udder failure?
- Coronacoaster: noun; the ups and downs of a pandemic. One day you're loving your bubble, doing work outs, baking banana bread and going for long walks and the next you're crying, drinking gin for breakfast and missing people you don't even like.
- I'm at that age where my mind still thinks I'm 29, my humor suggests I'm 12, while my body mostly keeps asking if I'm sure I'm not dead yet.
- You don't realize how old you are until you sit on the floor and then try to get back up.
- We all get heavier as we get older, because there's a lot more information in our heads. That's my story and I'm sticking to it.



## 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 PCARS is known as the **BIG FUN** amateur radio club. So chip-in and send your article in to keep this newsletter great for 2021 and beyond.

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

**AC8QG, N8WCP, KE8EGF, WA8EFK, N8SY, WB8LCD, KB8UUZ, NO8D, W8KNO, WA8AR, K3GP, KB8TUY, K8IV, K8CAV, N3FJP, KD8IDJ, KN4GWY, K7UA, K6MM, KE1B, K3LR, K1JT, K4DQP, W8PT, WIRFI, KA8TOA, N0AX, NJ4Z, KD8MQ, The RAC, Utah Valley ARC, CQ Magazine, RigExpert, On All Bands Blog, The ARRL and the World-Wide Web**

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



### Here's What You Can Do After You're Fully Vaccinated Against COVID-19

<https://www.prevention.com/health/a35852257/what-can-you-do-after-fully-vaccinated-covid-19/>

### GOOD NEWS - We are on our way back to 'Normal'

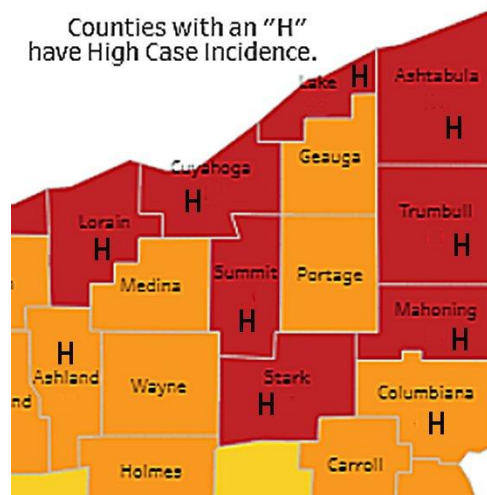
#### Ohio Public Health Advisory System Canceled

On Thursday, May 27, 2021, Ohio Department of Health Director Stephanie McCloud announced the cancellation, effective immediately, of the Ohio Public Health Advisory System. The statewide alert system launched in July 2020 to assess the degree of COVID-19 spread by county and provide data to help guide individuals, businesses, schools, communities, local governments, and others in their response and actions during the pandemic.

As cases decline and vaccinations increase, this data is no longer the best measure of Ohio's current status.

The Ohio Department of Health will continue to share COVID-19 cases, hospitalizations, deaths, current trends, key metrics, and vaccination data daily at [coronavirus.ohio.gov](https://coronavirus.ohio.gov).

Counties with an "H" have High Case Incidence.



The last county map showing the incidence levels was published on May 20, 2021.

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

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

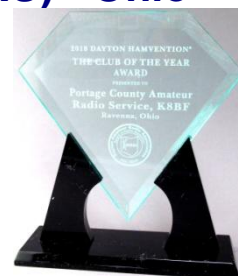


PCARS meets the second Monday of each month at the **Kent American Legion Post 496**, 1945 Mogadore Rd. - just South of Rt. 261 - Enter the rear of the building for the meeting room.

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

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

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



~ 2021 Officers ~		2021 PCARS Appointments & Committees	
<b>President - Nick Wagner - AC8QG</b> <b>Vice President - Mike Szabo - N8WCP</b> <b>Treasurer - Paul Hyland - KE8EGF</b> <b>3 Year Trustee - Amy Leggiero - N8AMY</b> <b>2 Year Trustee - John Myers - KD8MQ</b> <b>1 Year Trustee - Chuck Patellis - W8PT</b> <b>Past President - Tom Sly - WB8LCD</b>		ARRL Awards - DXCC	<b>W8KNO</b> Joe Wehner
		Club Site Manager/Liaison	<b>K8CAV</b> Rick Kruis
		Contest Coordinator	<b>W8PT</b> Chuck Patellis
		EchoLink	<b>AC8NT</b> Jim Wilson
		Field Day Chairman, 2021	<b>WA8AR</b> Tony Romito
		FYAO Chairman	<b>W8PT</b> Chuck Patellis
		Historian	<b>KB8SZI</b> Peggy Parkinson
		K8BF Callsign Trustee	<b>N8AMY</b> Amy Leggiero
		K8BF QSL Manager	<b>N8AMY</b> Amy Leggiero
		Membership Chairman	<b>AC8NT</b> Jim Wilson
		Net Control Manager	<b>KA8TOA</b> Greg Ash
		Net Night - Club Manager	<b>WB8LCD</b> Tom Sly
		Newsletter Editor	<b>KB8UUZ</b> Tom Parkinson
		OSPOTA Chairman	<b>KB8UUZ</b> Tom Parkinson
~ Meetings & Net ~		Public Information Officer	
<b>2nd Monday of each month. 7pm</b>  <b>Thursday night Club Net at 8 pm on 146.895</b>		Secretary	<b>AC8NT</b> Jim Wilson
		Social Media	<b>N8AMY</b> Amy Leggiero
		Tech, Gen & Extra Class Manager	<b>AC8NT</b> Jim Wilson
		Volunteer Examiner Liaison	<b>KB8UUZ</b> Tom Parkinson
		Webmasters	<b>KD8MQ</b> John Myers <b>K8SRR</b> Steve Randlett

 <b>PCARS Active Volunteer Examiner Team Members</b>	<b>KB8UUZ</b>	Tom Parkinson
	<b>WB8LCD</b>	Tom Sly
	<b>N8XTH</b>	Deron Boring
	<b>N8PXW</b>	Jim Korenz
	<b>N8QE</b>	Bob Hajdak
	<b>K8IV</b>	Ed Polack
	<b>WA8CCU</b>	Al Nagy
	<b>AC8NT</b>	Jim Wilson
	<b>KA8TOA</b>	Greg Ash
	<b>W8PT</b>	Chuck Patellis
	<b>AC8QG</b>	Nick Wagner
	<b>N8FUM</b>	Dan Torchia
	<b>W8GWI</b>	Dave Seckel
	<b>N8AMY</b>	Amy Leggiero



## THE RADIOGRAM

**PCARS Incorporated**  
Nov. 1, 2005

**First Meeting**  
Nov. 14, 2005



**ARRL Affiliation**  
April 20, 2006



**Special Service Club**  
March 22, 2010

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

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



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NLC

