



The **RADIOGRAM**

When All Else Fails ~ Amateur Radio Works
~ Official Newsletter of the Portage County Amateur Radio Service, Inc. ~
PCARS - the 2018 Hamvention® Club of The Year
August 2020 - Volume 15 Number 8

RADIOGRAM Wins 2nd in Ohio Newsletter Contest



Special Feature

“Battling the Radio Beams Part 2”



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



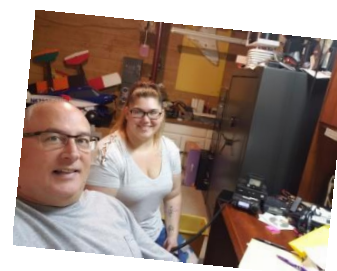
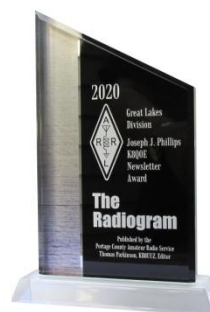


Feature Articles	
From the PCARS President	3
From the PCARS Vice President	4
More Covid-19 Changes - USPS	5
Ohio Section Awards - 2020	6
Great Lake Division Newsletter Award	8
Propagation as a Matter of Life or Death	10
N8AMY - 13 Colonies Special Event	12
Virtual Ham Expo Set for August	13
ARRL Board Meets in Remote Session	14
FCC Fines HobbyKing \$3 Million	15
What Would You Do?	16
Newer Solar Cycle 25 Forecast	17
Ohio Ham Named Young Ham of the Year	18
New ARRL Amateur Radio Webinar Series	21
From the ARRL Ohio Section Manager	22
From the Great Lakes Division Director	23
From the Great Lakes Division Vice Director	24
Battling the Radio Beams - Part 2 of 2	25
Field Day 2020	32
Beyond Radio	36
DX Engineering is Hiring	39
Ham Radio Mobile Operations - Circa 1919	40
Suitcase Radio - 1922	43
Island and Maritime (Kayak) Mobile	44
Flattening the CW Learning Curve	48
A Test for 'Older Kids'	54

Mark Your Calendar	
Schedule of Events	5
VE Test Information & News	11
Flex Net	29
Ohio State Parks On The Air	30
Hamfest Calendar - Cancellations	37
Net Info & NCS Schedule	38
Contest Calendar	39
Meetings, PCARS	50
Mobil Cruise-In Flier	51
PCARS BB-QSO Party Picnic Flier	52
Ohio State Parks On The Air Flier	53

Regular Departments	
PCARS Coffee Cup - Limited Edition	9
PCARS Patches & Stickers	9
Happy Birthday	11
PCARS IO Group	15
Swap-N-Shop	19
Paper Chase	25
Charlie the Tuner's HF High-Lites	41
Pictures from the last PCARS Meeting	45
SIG - CW/QRP & Linux	46
SIG - DX & Contest	47
Member Ham License Plates Wanted	49
PCARS on YouTube	49

Finals	
Thanks & 73	55
Fine Print	56



From the Editor: You will see some humor based cartoons about the COVID-19. Yes, I agree that this pandemic is VERY serious to all - but in tough times, you just have to have a bit of humor to get you through - I hope you agree. Hang in there, please



From the President

Tom, WB8LCD
PCARS President



Let me start out by saying Congratulations to PCARS, the RADIOGRAM and especially to Tom, KB8UUZ for once again being selected as one of the best club newsletters in the Ohio Section. I want to point-out that this is no small feat, and that it does not happen casually. Parky has made this his “mission” for going on 15 years now, and he has presented us with an “Award Winning” newsletter, every month, over those 15 years. If that were all that Parky did for us, it alone would be enough. But, he is there, behind the scenes, in just about everything PCARS does. He is, without question, a major part of the reason PCARS has had such success. Thank you Parky. Well done.

Thank you to everyone who works to make PCARS a success. It is a club we can all be proud of!

Nobody would have predicted that 2020 would be what it has been so far. (And I say “so far” cause it ain’t over yet!) But here we are. August looks like we could be having some fun, if, things don’t take a turn south... First off, our meeting. Monday, August 10th at the Kent American Legion. We will also try to improve upon our ZOOM technique and get a better presentation for you at home. Hal Turley, W8HC – will be with us for his presentation on the Oct 2019 VP6R DXpedition to Pitcairn Island. If you saw Glenn Johnson, W0GJ’s presentation during the DX Academy, it will be interesting to compare notes with Hal’s experience. Next up is the PCARS Mobile Cruise in at the Ravenna A&W. This is all outside. Social Distancing should not be a problem. I will have more information on that elsewhere in the Radiogram and on the PCARS website. Finally, on Saturday, August 22nd we have the PCARS BB-QSO Party. Another last-minute rule change may affect the way we participate on air, but we will still attempt the BBQ at the club site. Again, the plan is to keep everything outside and properly social distanced, details to follow as we get just a bit closer. I’m also going to toss in here, Saturday September 12th. Ohio State Parks On The Air. Another event that’s outside and could actually benefit from all the COVID crap with increased participation from home stations. We shall see.

Now for the good news. Solar Cycle 24 has bottomed out, and we are now starting to see Cycle 25 activity. Predictions vary, but I’m hoping the group who have made the prediction that this could be as good as Cycle 19 had some “inside information” and that’s what we experience. If not, or even while we are waiting for the sun to get active, we have still got a whole lot of new technologies and methods to make some Big Fun and lots of Q’s on the bands. FT-8 / FT-4 seem to be the current rage and I hear a lot of guys having fun and making some very interesting contacts. Space continues to fill up with satellites. Lots of new kits are out there if you are looking for them. The nice thing about a club like PCARS is that we have LOTS of guys (I use that as a non-gender specific term) who are doing lots of neat stuff! Make sure you keep records, take photos, diary your activities and then write that up and send it in to the Radiogram. While we cannot get together in person as much yet, we can still share our experiences and mentor other PCARS members so they can be successful too. One last item – PCARS is now an AmazonSmile organization. That means everyone who edits their Amazon account to show PCARS as their “Smile” choice will help PCARS receive a contribution from Amazon. If you shop on Amazon, please list us as your choice! Here’s another idea – if you know anyone else who shops on Amazon, ask THEM to list PCARS as their choice. Simple as that.

I hope to hear you on the air, and see you again in person one of these days!

From the Vice President

Nick, AC8QG
PCARS Vice President



I'd like to take a minute and give a shout out to all the people who have worked to keep PCARS going strong throughout these crazy months. This club stays amazing even when we run into challenges because of our volunteers and participants. **Keep it going, everyone!**

For all of our in-person activities, we are following state guidelines and common sense. In most cases, that means masks must be worn indoors, and we're sanitizing a lot. I really appreciate everyone doing their part on this front.

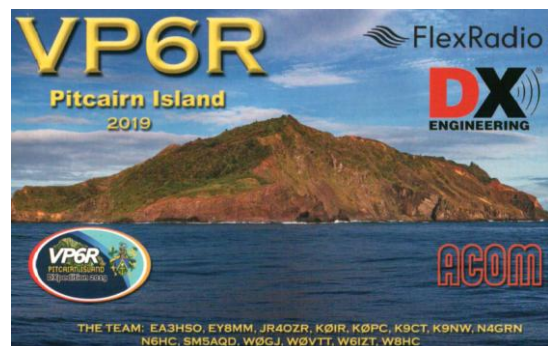
My kids have been keeping me pretty busy. In addition to the usual craziness of five kids, three of them volunteered to speak for the QSO Today Virtual Ham Expo (<https://www.qsotodayhamexpo.com/>). It's been a lot of fun and a lot of work. And we're not done quite yet. The expo takes place on August 8th and 9th, so we'll see how it goes. I'm quite proud of the work my kids put into this (and my wife, too... she put in a LOT of work with the kids), so hopefully, everything goes well.



The next several weeks are shaping up to be a lot of fun. To kick things off, we've got Hal Turley, W8HC coming back to talk about the Pitcairn Island DXpedition. I heard that this trip was a bit more successful than the last attempt.

Next up, that same week, we have the Mobile Cruise-In at the A&W in Ravenna. I want to see more than a few cars with antennas this year. Let's make some Qs!

A bit later in the month is the Ohio QSO Party, and once again, that means that PCARS will have our PCARS-BB-QSO Party.



And of course, don't forget that OSPOTA is right around the corner at the beginning of September!

Upcoming Monthly Meetings:

August Monthly Meeting: Hal Turley, W8HC, Pitcairn Island DXpedition

September Monthly Meeting: Gordon West, WB6NOA

If you have any suggestions for a meeting topic, or if you are interested in giving a presentation, please let me know. We're always looking for new and interesting topics!



Schedule of Events

On the calendar for upcoming meetings and activities are:

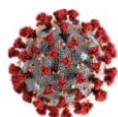


August 3rd - Board Meeting - starts at 7 pm
August 10th - PCARS Meeting - 7 pm - Hal Turley, W8HC, Pitcairn Is. DXpedition
August 13th - 11th Annual PCARS Mobile Cruise-In at the Ravenna A&W
August 22nd - PCARS Bar-B-QSO Party Club Picnic at the club site
August 27th - Net Night at the Club Site
September 8th - Board Meeting - starts at 7 pm
September 12th - Ohio State Parks On The Air contest
September 14th - PCARS Meeting - 7 pm - Gordon West, WB6NOA
September 27th - Net Night at the Club Site

NOTE: All In-Person Activities & Meetings

Subject To Cancellation

Check Web Site for Updates



First Tuesday	-	Digital	- Moderator: Rick, K8CAV
Second Tuesday	-	QRP/CW	- Moderator: Terry, KB8AMZ
Third Tuesday	-	Antenna	- Moderator: Tony, WA8AR
Fourth Tuesday	-	DX & Contest	- Moderator: Chuck, W8PT
Fifth Tuesday	-	Linux for Hams	- Moderator: Terry, KB8AMZ
Fourth Thursday	-	Net Night at the Club Site	- 6:30 pm - Moderator: Tom, WB8LCD



More COVID-19 Changes.... USPS

From CQ Magazine



Cards from here to there may be a problem for the foreseeable future. The US Postal Service says it has temporarily stopped accepting international mail for nearly 100 countries around the world due to impacts from the COVID-19 pandemic. As of June 10, mail service to 21 countries had been suspended due to "foreign postal operator service suspension" and another 75 countries were on the "do not mail" list due to "unavailability of transportation." The regularly updated list of specific countries, along with procedures for requesting a refund or remailing in the future is at <http://tinyurl.com/sxvuqwb>.

In a related story, the ARRL says it was experiencing 1-3 week delays in shipping member orders as of mid-May, due to restrictions on how many people at a time could be present in their warehouse and excessive demands on shipping carriers.

Here at CQ, we have experienced very slow and sporadic mail delivery. On the bright side, our offices, which have been closed since mid-March under state stay-at-home orders, were scheduled to reopen on June 15.

Ohio Section Awards for 2020



Newsletter Awards:

But first a word from our judges!

Judge Steve Wilson: *"WHEW !!! Difficult to handle newsletter judging with Covid-19, but also difficult to handle the business of putting the newsletters together. Our hats off to everyone who kept working despite the Coronavirus."*

Our 2020 Newsletter contest was certainly different this year but we learned many new things about our newsletters and our process....more on that in a moment...let's get right to the winners.

1st Place...Alliance ARC – ZERO BEAT

2nd Place...Portage County Amateur Radio Service - PCARS - The RADIOGRAM

3rd Place...TIE - Mahoning Valley ARC -Voice Coil and Delaware County ARC -DELARA NEWS

4th Place...ATCO Amateur Television Central Ohio – ATCO NEWSLETTER

Honorable Mention...Cincinnati FM Club CFMC – The SPARK



CONGRATULATIONS to our winners and to everyone... a job well done! This was a challenging year to say the least. We made the decision for the judges not to meet in person to stay safe from the Coronavirus. We devised our first-ever ELECTRONIC judging ...also known as PLAN B... and that opened up a few doors and gave us some different opportunities to consider. First, instead of having printed copies, each judge had to access the club's website and view the newsletters from there. In the past we did this for the few clubs that had online newsletters only but now the playing field was a little different... perhaps a little more level! We were able to see the newsletters in their "natural surroundings" navigate through them and see how they appeared on-screen as opposed to on-paper.

While the newsletters were not judged on these new dynamics per say, we felt some suggestions would be in order. First, if your newsletter is accessible from your website make the button LARGE and predominate on the front page. This will make it easier for current members, new members and prospective members to find your newsletter quickly. Also take a look at your newsletter, not only a computer, but on a cell/smart phone as well. Sometimes the layout and navigation will not be the same or work as well on a phone screen. It's a good idea as well to check the navigation, page turning, on your newsletter so readers can easily flip pages. Some clubs do not attach their newsletters to their website for fear of a breach of sensitive material. If that's the case here are a few things to consider. First, if you have sensitive information in your newsletter, you might consider sharing that with club members via regular email or mailing. If your club is a 501 (c) (3) your information is a matter of public record and can be shared or viewed by anyone. Also remember that all of the Ohio Section newsletters are on our website and are very popular viewing by clubs around the country!

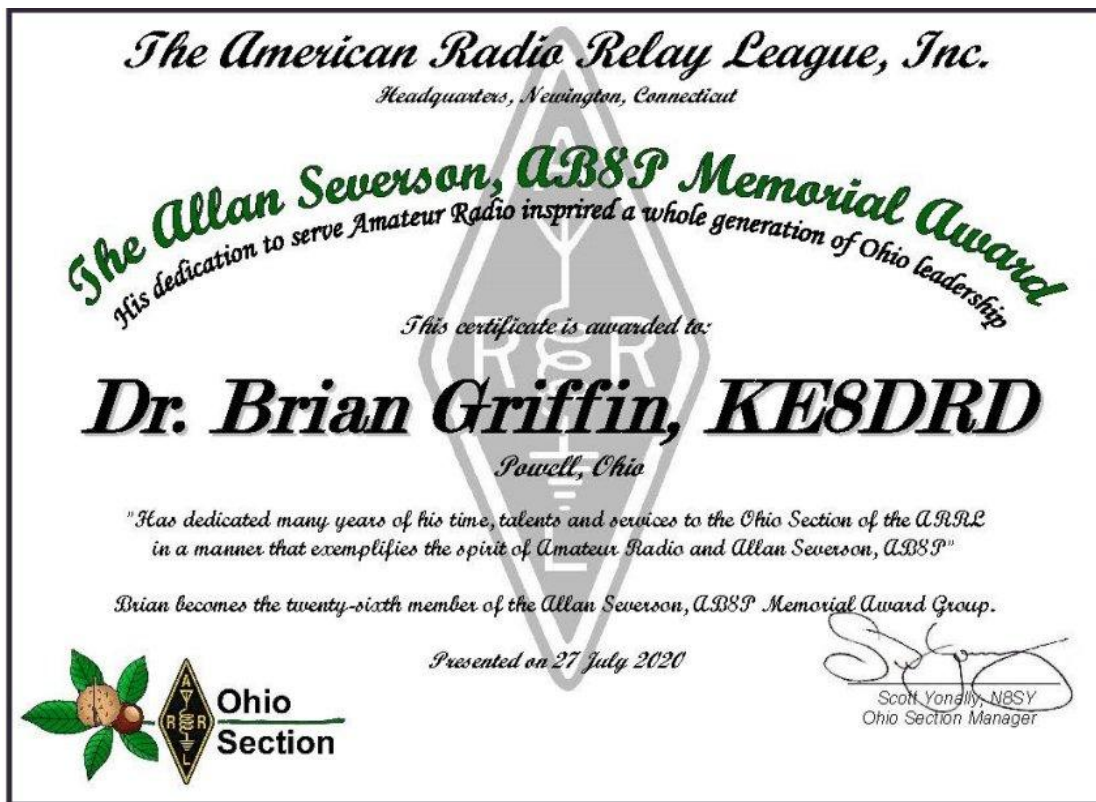
I'm impressed what our judges did this year...adapted to a new process but kept their professional integrity intact while offering some good suggestions that will help all of us who toil as wordsmiths. Again...**CONGRATULATIONS** to the winners and **THANKS** to all for another great contest.

Allan Severson, AB8P Award

Ok... Now for a huge announcement... I want to take a few minutes of your time to introduce you to the latest Allan Severson, AB8P Award recipient. It's been my privilege for many years now to present the most prestigious award that the Ohio Section gives out. Normally this is done with all of the Pomp and Circumstance that can be mustered at a conference or convention, but unfortunately this year the COVID-19 pandemic has taken away that opportunity. Since I can't be with all of you to do this introduction like we normally would do, I want you to standup while your reading this introduction, we'll save the Pomp and Circumstance for a safer time. But trust me, it will happen for sure!!!

Our recipient is one that you might not have heard of unless you are from the Central Ohio area. But don't let that fact skew his worthiness of this award. The recipient has worked hard for the better part of 20 years on a very special project that has included amateur radio and the Ohio Section for all of those years. He is a medical doctor with not only an interest in saving lives, but one that has found a way to combine his professional vocation with amateur radio. It all started back when a very famous person wanted to start a project that turned into one of the largest multisports activities in North America. Obviously, such an event will require the services of medical teams that can treat any injured athlete, but it goes much further than that. As with any large sporting event before COVID-19, it always seems to generate huge crowds of people that are interested in those sports. This creates another problem. Anytime you gather huge crowds, you have medical problems that need attention. And, with the larger the crowds, the more complexed it gets getting the proper help to those folks in need. Our recipient used his skills and knowledge that he learned as an amateur radio operator and combined it with his skills and training as a medical doctor to put together one of the most advanced and well trained mass care units ever conceived for an athletic event. He trained hundreds of his fellow doctors and nurses, paramedics, EMT's and YES, even amateur radio operators to form small fast responding "Medical Teams" to take care of everyone attending this sporting event every year. Here is just a little overview of what these teams had accomplished: Our all-volunteer medical teams were nearly always physician led teams with both medical and communications support on site with ALS backup immediately available. We used the Mass Casualty Incident Command structure and, in 20 years, had no deaths (in spite of a half dozen cardiac arrests), no persistent spinal cord damage (3 severe cervical fractures), and a rough total of 6,000 injuries seen and maybe 200+ EMS transports. TOP^ Allan Severson, AB8P 44 | P a g e Over the course of these past 20 years our growth kept pace with the ever-expanding event, including at the time of the addition of the Ohio Exposition Center (Ohio fairgrounds) in 2015 with the need for more teams/volunteers and logistics. This past year our two command centers fielded almost 40 medical teams simultaneously at our peak effort from two major sites and 4 remote sites and took care of 587 injuries with 22 EMS transports. The event is more than twice the size of the Olympics and completed in a much shorter time period. Our teams performed flawlessly, and the thousands of wonderful volunteers that worked with us - attending & resident physicians, DCs, LPNs, RNs, NPs, PAs, EMTs of all levels, medical students, athletic trainers, Amateur Radio Operators, Boy Scouts and our registration and support personnel. We successfully handled everything that was thrown at us! So, now with everyone standing and waiting for me to announce the name.....

Our recipient is....



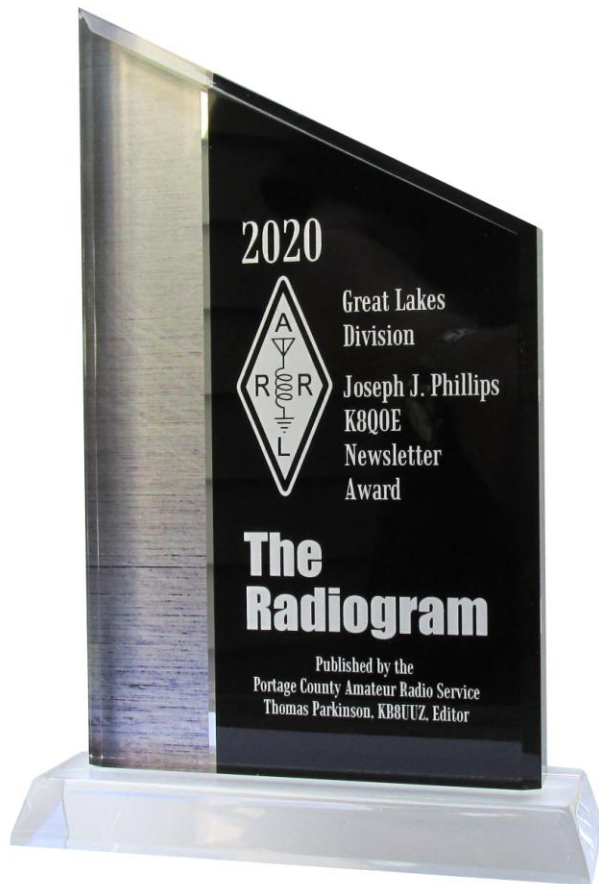
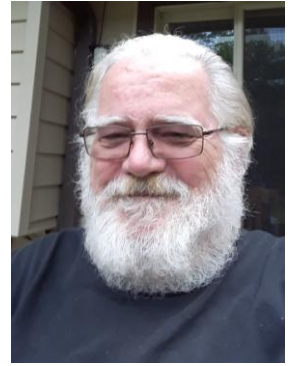
Great Lakes Division Newsletter Award

Tom, KB8UUZ
PCARS Newsletter Editor

As you know, the 2020 Great Lakes Division Convention was cancelled last March due to the COVID-19 situation.

I was really looking forward to attending the conference since **The RADIOGRAM** won First Place in the Great Lakes Division Newsletter contest.

The beautiful award arrived by UPS last week and it is really, really very nice!



ARRL The national association for
AMATEUR RADIO®
Advancing the art, science, and enjoyment of Amateur Radio

ADVOCACY
MEMBERSHIP
PUBLIC SERVICE
EDUCATION
TECHNOLOGY

Mr Tom Parkinson KB8UUZ
9992 State Route 700
Mantua, OH 44255

Dear Parky,

Congratulation to you as Editor and to the "Radiogram" for winning the ARRL Great Lakes Division Newsletter Contest. I have enclosed your Award and hope it finds a suitable place in your home for others to see and enjoy.

Of course this Covid-19 pandemic has crashed many plans for hamfests this year and it had been my goal to formally present this to you at the DX Engineering Hamfest this fall. Sadly that is not to be, but we look forward to another year and another opportunity in 2021.

On behalf of the Great lakes Division Cabinet members and your fellow GLD hams, all the best wishes to you and your club members.

73,

Dale Williams WA8EFK
Director
Great Lakes Division
ARRL

■ Rick Roderick, K5UR
President

■ Michael Raisbeck, K1TWF
First Vice President

■ Bob Vallio, W6RGG
Second Vice President

■ Rodney Stafford, W6ROD
International Affairs Vice President

■ Barry Shelley, N1VXY
Interim Chief Executive Officer
& Secretary

■ Diane Middleton, W2DLM
Chief Financial Officer

■ Rick Niswander, K7GM
Treasurer

ARRL Headquarters, 225 Main Street, Newington, Connecticut, USA 06111-1400

Telephone: 860-594-0200 ■ FAX: 860-594-0259 ■ www.arrl.org

AMERICAN RADIO RELAY LEAGUE, INC.—International Secretariat of the International Amateur Radio Union

PCARS Custom Coffee Cups - Limited Edition- Going Fast

PCARS has obtained a 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 **limited number of extra coffee cups** and they are for sale at \$5.00 each

Contact Paul for all of the details



Portage County Amateur Radio Service



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



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



Propagation as a Matter of Life or Death

From the ARRL Contest Update

On May 25, 1928, the airship *Dirigible Italia* crashed on pack ice northeast of the Svalbard Islands on the return leg of a trip to survey the North Pole with 16 passengers and crew on board. At impact, one person was killed, and the cabin carrying nine people separated from the hydrogen-filled airframe. Six crew members on the dirigible structure were never seen again, after the airship again became airborne. The survivors on the



icepack turned to their 5 W wireless set, a one-tube Hartley oscillator, to put out a call for help, but it was only after 9 days of trying that they were able to get the attention of a radio amateur 1,900 kilometers (1,178 miles) away.

The recently published [article](#), "The Shipwreck of the Airship *Dirigible Italia* in the 1928 Polar Venture: A Retrospective Analysis of the Ionospheric and Geomagnetic Conditions," provides the gripping

historical context and tries to explain why it was so difficult to establish communication for a rescue. Drawing from sources of geophysical data collected at the time, and using modern theories of propagation -- including [some directly derived](#) from amateur radio observations -- the authors present data including sunspot count, magnetic flux, and F2 layer height, and take the reader through an analysis of the sky-wave and ground-wave paths.

Ultimately, the authors suggest, ground-wave path losses likely exceeded 100 dB, leaving only skywave as a potential link. In the first few days after the crash, the ionospheric path was impossible at the frequencies being used -- 9.1 and 9.4 MHz -- due to disturbed conditions. It was only after conditions had settled that communication became possible, and it only became reliable when a lower frequency was chosen.

Even after communication was established, 15 rescuers were lost in the search and recovery operations, including Roald Amundsen, Norway's famed polar explorer. Finally, on July 12, 1928, 48 days after the initial crash, a Russian icebreaker was able to reach and rescue the survivors.



ARRL The national association for
AMATEUR RADIO™

ARRL Contest Update

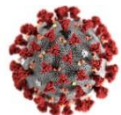
NEWS AND TECHNIQUES FOR THE ACTIVE OPERATOR

- Public Service
- Advocacy
- Education
- Technology
- Membership

PCARS VE Test Information & News

Tom, KB8UUZ
PCARS VE Team Liaison

PCARS VE sessions are usually 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

Oct 3rd, Dec 5th

Amateur Extra Class question pool changed - July 1, 2020

What to Bring to the Testing Session

- \$15 is still the current test fee. We prefer the exact amount in cash or a check made out to: **ARRL-VEC**
- A government photo ID (**driver's license or state ID card preferred**).
- Your Social Security Number or FCC Federal Registration Number. We are required to submit either your Social Security Number (SSN) or your FCC Federal Registration Number (FRN) with your application. If you are upgrading, your FRN is on your current Amateur Radio license.
- A pen (black ink) and pencil (we can loan you either or both)
- **If you already have an Amateur Radio license: One copy of your current (*unexpired*) Amateur Radio Operator License issued to you.**
- 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.

Any Questions? Contact: KB8UUZ@gmail.com



Happy Birthday PCARS Members

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

K8IG	Fred Freer, III
K8VOX	Julie Martin
K8ZGW	Don Ritchie
KB8TUY	Mike Ryan
KB8VJL	Al Atkins
KC8TUE	Terry Mills
KD8CGH	Robert Benedict
KD8OBA	Kenneth Miller
KD8ZSH	Randall Thorpe
KE8ELR	Andrew Williams

KE8NJA	James Green
KE8NWQ	Greg Gummere
N3BSN	Laura Gibson
N6TL	Randy Wilson
N8GPS	Ned Brown
N8SKN	Robert Rohde
W8LSQ	Evan Liechty
W8RJG	Ron Good
WD8ICX	Gary Marks
WD8RAY	Ray Woods



N8AMY - 13 Colonies Special Event

Amy, N8AMY

Just wanted to share my fun experience with the recent 13 Colonies contest over the July 4th weekend. I have previously participated by contacting a few of the colonies but this year decided to attempt a clean sweep with bonus stations included!



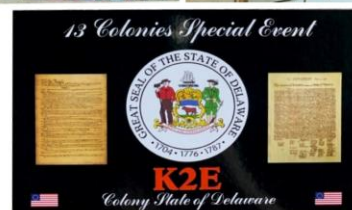
I live in a condo so I needed to operate from my Dad, K8FF's station in order to have the power and antennas needed. I attempted to find all of the colonies on SSB (since I do not operate CW), however, that was nearly impossible. There were several I just could not find.

My Dad suggested we use FT8 and showed me how to look for those stations and contact them with his computer. It took me 3 days, but it was really fun to learn FT8 and I am happy to report that I did contact all 13 colonies (As well as bonus stations) ! I was so happy to complete this goal, that I



mailed SASE's to each and every single station to get the annual QSL card for the 2020 contest. So far I have received 8 of them back!

I am proud of myself for setting a goal and achieving it as well as diving into a mode that is still pretty unfamiliar to me. I love contesting and normally operate state QSO parties, but am excited about adding some new ones this year! Especially since **I passed my Amateur Extra exam June 20, 2020** and have the extra band privileges! I hope you try something new and dive in with both feet. Have a great week! VY 73



Virtual Ham Expo Set for August

[QSO Today](#) podcast host Eric Guth, 4Z1UG/WA6IGR, has announced that the first [QSO Today Virtual Ham Expo](#) will take place **Friday, Saturday and Sunday, August 7-8-9**. Attendance is **free** to all, [registration](#) is open, and there are early bird prizes for registering now.



Built on a live, virtual reality platform used by Fortune 500 companies and major universities, the ARRL-sanctioned hamfest will feature a lineup of well-known speakers. Guth and his team, including George Zafiropoulos, KJ6VU, have assembled more than 50 of the best ham radio mentors in multiple tracks to address this conference from the virtual Expo's auditorium.

Presenters will include Ward Silver, N0AX, on grounding and bonding; Glenn Johnson, W0GJ, on DXpeditions, and John Portune, W6NBC, on building slot antennas for antenna-restricted locations. Demonstrations of new amateur radio gear will be presented, and attendees can speak with exhibitors via video/audio or chat, as well as interact with others online.

DX ENGINEERING IS A PROUD SPONSOR OF THE QSO TODAY VIRTUAL HAM EXPO

Expo opens: 8:45 pm ET on August 7th
Keynote Address: 9 pm ET on August 7th
Saturday Speakers Begin: 11 am ET on August 8th
Sunday Speakers Begin: 11 am ET on August 9th



"This platform simulates a full convention experience, with an exhibit hall and exhibit booths staffed by live attendants, speaker auditorium, lobby, and lounges," the announcement said. Guth, an ARRL member, decided to go forward with the virtual event after many in-person ham radio conventions were canceled because of the COVID-19 pandemic. ARRL will be among the exhibitors filling the virtual exhibit hall.

Attendees will be able to share ideas and network with each other via the virtual platform. Following the 48-hour live event, audio/video from presentations and resources published by exhibitors will remain available to registrants on demand for 30 days.



spouse: did you buy another radio today?
me:



ARRL Board Meets in Remote Session



Due to travel and gathering restrictions in place because of the coronavirus pandemic, the ARRL Board of Directors met on Friday, July 17, in a remote session, using the Zoom videoconferencing platform.

During this session, the Board took the following actions:

- Accepted the final recommendations of the Band Planning Committee. Committee chair and ARRL First Vice President Mike Raisbeck, K1TWF, introduced the motion to adopt the plan. An earlier draft of the plan was introduced at the Board's in-person January meeting. After the January Board meeting, the Committee received and considered hundreds of comments from interested amateurs. The final band plan can be viewed on the ARRL website <http://www.arrl.org/files/file/ODV/Second%20Board%20Meeting%20July%202020/Doc%2025A%20Band%20Plan%20Final-1b.pdf>.
- Voted, in anticipation of hiring a new Emergency Management Director, to modify the charter of the search committee to study and, if appropriate, prepare a report on the implementation of a new Standing Committee of the Board to emphasize emergency communications and provide advice to the CEO in these matters. The report is expected to be delivered to the Board by November 24.
- Created a Standing Order that gives the Programs and Services Committee authority to approve, by vote, proposed rule changes for contests and awards.
- Accepted the financial reports from the Chief Financial Officer and Treasurer on the finances and investment portfolio of the organization.
- Modified the composition of the ARRL Legal Defense and Assistance Committee and the guidelines for what activities will be funded by ARRL.
- Amended ARRL By-Law #18 <http://www.arrl.org/arrl-by-laws> to conform with changes made at the January Board meeting regarding the election period for Division elections.
- Approved the recipients of several awards, including the Hiram Percy Maxim Memorial Award.
- Acknowledged the efforts of ARRL Headquarters staff in dealing with and maintaining operations during the pandemic.
- Discussed personnel matters in a Committee of the Whole.

The meeting ended with the Board recessing until a future, as-yet-undetermined date, when the meeting will be concluded. That is expected to be in 4 to 5 weeks, depending on circumstances and the ability to arrange a suitable meeting site. Minutes will be released once the meeting is concluded.

By-Law #18:

Elections

18. In the July and August issues of QST, the Secretary shall solicit nominations for the office of Director in each division in which the term of the incumbent is to expire on the subsequent January 1, in a notice that shall include the name of the incumbent. On any date between the first business day of July and noon Eastern Time on the second Friday of August of any election year, any Full member of such division may request official nominating petition forms. To constitute a valid nomination, the original copy of such an official nominating petition form as provided by the Secretary must name a Full member of the division as a candidate for Director; must be signed by ten or more Full members of the division; must be accompanied by a statement signed by the candidate attesting to his or her eligibility, willingness to run, and willingness to assume the office if elected; and must be filed with the Secretary no later than noon Eastern Time on the third Friday of August of that year. The submission may be made by facsimile or electronic transmission of images, provided that upon request by the Secretary the original documents are received by the Secretary within seven days of the request. The Secretary shall immediately acknowledge the receipt of nominations to the candidate and shall forward the nominations to the Ethics and Elections Committee.



FCC Fines HobbyKing \$3 Million



FCC Fines HobbyKing Nearly \$3 Million for Marketing Unauthorized Drone Transmitters

The FCC has issued a Forfeiture Order (FO) calling for HobbyKing to pay a fine of \$2,861,128 for marketing drone transmitters that do not comply with FCC rules. An FCC Enforcement Bureau investigation stemmed in part from a 2017 ARRL complaint that HobbyKing was selling drone transmitters that operated on amateur and non-amateur frequencies, in some instances marketing them as amateur radio equipment. The fine affirms the monetary penalty sought in a June 2018 FCC Notice of Apparent Liability (NAL). The FCC said its investigation found that dozens of devices marketed by the company transmitted in unauthorized radio frequency bands and, in some cases, operated at excessive power levels. "Such unlawful transmissions could interfere with key government and public safety services, like aviation systems," the FCC said. "We have fully considered HobbyKing's response to the NAL, which does not contest any facts and includes only a variety of legal arguments, none of which we find persuasive," the FCC said in the FO. "We therefore adopt the \$2,861,128 forfeiture penalty proposed in the NAL."

The FCC pointed out in the FO that it has previously made clear that "[d]evices used in the Amateur Radio Service do not require authorization prior to being imported into the United States, but devices for other services, including the CB service, require Commission approval." The FCC investigation found that 65 models of devices marketed by HobbyKing should have had FCC certification.

Responding to the NAL, HobbyKing claimed to have ceased marketing the 65 models the FCC identified, but promised only to make "best efforts" not to market other noncompliant RF devices. "HobbyKing has a continuing obligation to market only radio frequency equipment that is properly authorized," the FCC said. "We therefore remind HobbyKing that continuing to market noncompliant radio frequency devices could result in further significant forfeitures."

HobbyKing has 30 days to pay the fine. If it fails to do so, the matter will be referred to the Department of Justice for collection.

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!!

A screenshot of the PCARS IO Group page on groups.io. The page header shows the URL "https://groups.io/g/PCARS" and navigation links for Home, Messages, and Hashtags. The main content area features a banner for "PCARS K8BF" with the tagline "The Club that puts the FUN in Ham Radio!". Below the banner, there is a "Group Description" section, a "Group Information" section showing 69 members and a "Join This Group" button, and a "Group Settings" section with various options like "All subscribers can post to the group" and "Posts from new users require approval from the moderators".

What Would You Do?

Dan, KB6NU



What would you do if you came across a group illegally using amateur radio frequencies?

This morning, I got the following email from a former student:

*"I'm looking for some wisdom. If I'm communicating over amateur radio channels with a couple groups of people who are using radios without licenses, should I use my call sign? I'm wondering if by doing so, I make myself a target. The groups I'm dealing with are two militia groups and one RV campground, all three using Baofengs. I cannot stop the usage. So do you think it's wiser to just hide in the group and not identify myself, or always identify myself so I am legal?
Thanks for your wisdom."*

Wow. What a question, eh? My initial reaction was that this is really a no-win situation, if you want to be strictly legal. It's a rules violation to not properly identify, but it's also a violation to communicate as an amateur radio operator with other stations not operating in the Amateur Radio Service (except, of course, in emergencies).

I asked Dan Henderson, N1ND, the ARRL "rules guy" about this, and he replied:



The FCC doesn't require amateur licensees to verify whether the other station is licensed before they are allowed to communicate with them – but upon determining that the other station is not one with which you are permitted to communicate, then the burden falls to the licensed amateur to follow the rules and cease communication with the unlicensed station.

I also suggested that he consider reporting the illegal operation to the ARRL. The ARRL Volunteer Monitor Program is supposed to work with the FCC on these types of issues, but I didn't find any way to do this on the ARRL website. I emailed Riley Hollingsworth, K4ZDH, who's heading up the program, about this, and he replied that you can report this activity directly to him. His email address is k4zdh@arrrl.net.

If it were me, I might politely advise them that it's not really legal to use amateur radio frequencies, and that they might want to use the Family Radio Service (FRS) or General Mobile Radio Service (GMRS) frequencies instead.

FRS is license-free, but radios used on FRS frequencies are supposed to be limited to 2 W output. I'm guessing, though, that they could use their Baofengs on FRS frequencies at the 5 W or even 8 W level, without serious repercussions, even though it's technically illegal.

GMRS would really be the way to go. Legally using GMRS radios does require paying for a license—which some preppers would be hesitant to do—but you can use higher power radios (up to 50 W!) and even set up repeaters.



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

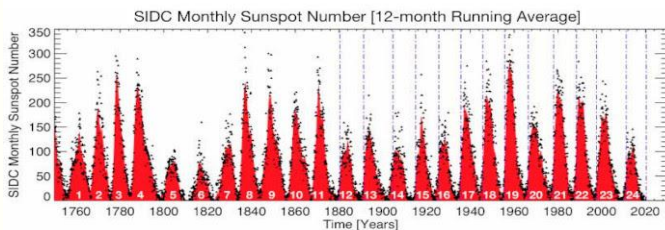




Newer Solar Cycle 25 Forecast Runs Counter to Consensus

Scientists associated with the National Center for Atmospheric Research, the University of Maryland, NASA Goddard Space Flight Center, and other institutions are offering a "bold prediction" on how Solar Cycle 25 will play out. In a [paper](#), "Overlapping Magnetic Activity Cycles and the Sunspot Number: Forecasting Sunspot Cycle 25 Amplitude," they assert that the next sunspot cycle will be of major proportions. The forecast stands in stark contrast to the consensus of forecasters who predict that the magnitude of the nascent Cycle 25 may not be much different from the current unremarkable solar cycle, which appears to have reached its low point.

"From the dawn of modern observational astronomy, sunspots have presented a challenge to understanding - their quasi-periodic variation in number, first noted 160 years ago, stimulates community-wide interest to this day," the abstract points out. "A large number of techniques are able to explain the temporal landmarks, (geometric) shape, and amplitude of sunspot 'cycles,' however, forecasting these features accurately in advance remains elusive."



Monthly sunspot numbers since 1749. The data values are represented by dots, and the 12-month running average values are illustrated as a red shaded area. Vertical blue dashed lines signify the magnetic activity cycle termination times that trigger the rapid growth of sunspot activity.

abstract explains. "Given this relationship and our prediction of a terminator event in 2020, we deduce that Sunspot Cycle 25 will have a magnitude that rivals the top few since records began. This outcome would be in stark contrast to the community consensus estimate of Sunspot Cycle 25 magnitude."

According to the paper, low-amplitude solar cycles appear to correspond with widely separated terminators, while larger-amplitude cycles correspond to more narrowly separated terminators.

"[O]ur best estimate for the [sunspot number] amplitude of Solar Cycle 25 is 233 spots, with a 68% confidence that the amplitude will fall between 204 and 254 spots," the paper posits. "We predict with 95% confidence that the Cycle 25 amplitude will fall between 153 and 305 spots."

The researchers concede that their forecast is outside of the scientific consensus, based on different paradigms. "Over the coming months, as [Solar Cycle] 25 matures, it will become evident which of these paradigms is most relevant," the paper says. "Very early indications of the spot pattern are appearing at higher-than-average latitudes ($\sim 40^\circ$). Historically, high-latitude spot emergence has been associated with the development of large amplitude sunspot cycles -- only time will tell."

The paper notes that recent studies have illustrated a relationship between the sun's 22-year Hale magnetic cycle and the production of sunspot cycle landmarks and patterns, but not the amplitude of the cycle.

"Using discrete Hilbert transforms on 270 years of monthly sunspot numbers to robustly identify the so-called 'termination' events -- landmarks marking the start and end of sunspot and magnetic activity cycles -- we extract a relationship between the temporal spacing of terminators and the magnitude of sunspot cycles," the



NASA's Solar Dynamic Observatory captured this image of a sunspot, with a core larger than Earth.

Ohio Ham Named Young Ham of the Year



Christopher Brault, KD8YVJ, Named 2020 Amateur Radio Newsline Young Ham of the Year

NEW YORK – Christopher Brault, KD8YVJ, of suburban Cincinnati, has been selected as the 2020 Bill Pasternak WA6ITF Memorial Amateur Radio Newsline Young Ham of the Year.



Chris, 18, is the son of Jocelyn Brault, KD8VRX, and Kimberly Brault, of Liberty Township, Ohio. Chris earned his Technician class license in 2014 and passed his General ticket about a year later.

He said his father was his guide into amateur radio. Chris recalled car trips, watching and listening to his father operating mobile. “We would be on a road trip somewhere,” Chris said. “We’d be talking to people along the way, it seemed like fun.” Chris is a member of the Dayton Amateur Radio Association, the West Chester Amateur Radio Association, and the Ohio Valley Experimenters Club.

An honor student entering his senior year at St. Xavier High School, Cincinnati, Chris helped restart the school’s amateur radio club (W8GYH). He has earned recognition for his many achievements in promoting amateur radio including the Hiram Percy Maxim Award (2015); the Ohio Section Special Recognition Award (2016); and the Great Lakes Division Young Amateur of the Year (2017). In 2017, Chris was invited to join the Dave Kalter Youth DX Adventure to Costa Rica where he worked the stations with Bryant Rascoll, KG5HVO, the 2018 YHOTY award winner, and Austin Harris, WA8CCS, in making more than 3,100 contacts.

Chris also helped in the planning of an Amateur Radio on the International Space Station (ARISS) contact in 2016 and spoke with Astronaut Kate Rubins KG5FYJ while she flew overhead. Chris is social media director for the Youth on the Air organization and is a contesting mentor for youth who are involved in its programs. He is also a tour guide for the National Voice of America Museum of Broadcasting in West Chester, Ohio, and actively assists in mentoring young operators at its amateur radio station, WC8VOA. Chris also works annually with his father on putting youth on the air in the annual Jamboree on the Air in October. He has also been a presenter at the Dayton Youth Forum (2017) and Orlando Hamcation (2017). Chris recently started working a part-time job at the Butler County Regional Airport near his home and was invited to take flying lessons. He is pursuing his private pilot’s license and is exploring a career in aviation as a commercial pilot.

The YHOTY award is traditionally presented during the Huntsville Hamfest in August in the Von Braun Center, Huntsville AL. However, because of the Covid-19 pandemic, the hamfest was cancelled. Chris recently received a certificate of recognition presented in West Chester, Ohio by Amateur Radio Newsline’s Don Wilbanks, AE5DW. The Young Ham of the Year Award was inaugurated by William Pasternak, WA6ITF, in 1986. Upon his passing in 2015, Bill’s name was added to the award as a memorial to his commitment to recognizing the accomplishments of young people to the amateur radio service.

Amateur Radio Newsline, CQ Magazine, and Yaesu USA are primary sponsors of the award, along with Heil Sound Ltd. and Radiowavz Antenna Company.

Swap-N-Shop

For Sale: Yaesu FT-450. This is not the D version. It doesn't have the Automatic antenna tuner. This has been my camping/POTA rig for the last 4 years. I'm selling it because I need something smaller, and am looking at the Yaesu FT-891. It comes with the hand microphone, power cable, and the box. Asking for \$400.00 **Yaesu FTM-400XDR** Dual Band Fusion rig. New Nov 2018. Has both Bluetooth & Voice modules installed. Original box & mount - \$450.00

Contact: John, KD8MQ at: kd8mq1@gmail.com or phone 330-936-5021 [11/02/20]

For Sale: BridgeCom Systems BCH-270 DMR 2M/70CM HT, BGM-270-Cable, & BGM-BCH-270 Spare Battery and Belt Clip \$130.00. **MFJ-9340K 40M Cub QRP Kit** \$125.00. **DX Engineering DXE-SWP8 Memory Keypad** for Kenwood and Icom \$50.00. All items never used.

Contact: Bob, N8QE at: rhajdak@aol.com [10/02/20]

For Sale: IC 7410 w/optional 3kHz filter. **2 4225 power supplies, 1 4245 power supply, MFJ-994B Intellituner, 1 Versa Tuner III, 2 Heil mics for Icom,** with booms & wiring, **1 IC-2100, 1 Mirage 5018 160 watt amp, SC-400 Power Meter, 2 Alpha Delta switches, 1 MFJ antenna analyzer,** every antenna, every run of wire, 2 antenna poles 30, and 35ft, every piece of ham related equipment goes, asking \$800 in cash. The 7410 is worth that! We are moving down south and I'm selling it all! Give me a call if you're interested.

Contact: Doug, KC8OHQ at: suhredouglas@gmail.com [10/02/20]

FOR SALE: Drake TR7 HF Transceiver with **Drake PF7** Power Supply (Not working – goes with TR7) \$630, **Drake RV7** Remote VFO \$100, **Drake MS7** Speaker \$ 75, **Astron RM-35** Power Supply goes with TR7 **ALL ABOVE FOR \$800 OBO** **Drake L7** HF Amp and **Drake P7** Amp - **Both for \$950 OBO** **Kenwood TS-140S** HF Transceiver, **Kenwood PS430** Power Supply, **SP-430** Speaker - **All for \$250 OBO** All items were tested and working except for the PF7 power supply as noted. The prices are an average what was found on line.

Contact: Bob, WB8OVQ at: 220-802-9562 [10/02/20]

FOR SALE: Alpha 77DX with all of the Dick Byrd upgrades. These upgrades include the following; higher voltage plate transformer providing 4300 Volts idle, 7500 Volt rectifiers, 5000 Volt 35 µf filter capacitor, wide spaced loading capacitors like are used in the 77SX, all new step start components, large 10x38mm fuse holders, all new electrolytic capacitors on timer & QSK boards as well as LED lighting for the meters. This amplifier has ZERO HOURS since being upgraded as it was my back-up amplifier. \$5000 **YAESU FT-1802** This a 50 Watt 2 meter mobile that will TX 144-148 MHz & RX 136-174 MHz with power output settings of 50W, 25W, 10W, 5W with power cord, manual & new microphone. \$85.00 **YAESU VR-120** Hand Held Communications Receiver. This YAESU hand held communications receiver is a professional grade receiver that has 640 memory channels. It covers 100 KHz thru 1300 MHz in FM/WFM and AM modes. I purchased it for special project that never materialized. It is in excellent condition since it was only used a couple of times. It comes with antenna, manual and box. Also included are two new Duracell AA batteries.

Craftsman 3 ½ Digit DMM w/ 1000 Volt Fluke Lead Set. Also includes Craftsman non-contact Hall-effect voltage sensing probe, used and in good condition \$30.00 **DC Power Cords** 6 Pin ICOM \$20.00, 4 Pin Kenwood \$15.00, Heavy Duty 12 Lighter Plug to Anderson Power Pole 4' Long \$20.00 **High Voltage Rectifiers** blocks containing (2) 10,000 Volt 1 ampere CCS diodes, great for full wave power supplies or use two for a full wave bridge, \$15.00 each.

HARGER 2-Hole Long Barrel Lug for #2 Wire These are premium grade lugs are great for tower grounding projects \$4.00 each **ANDREW GKT-F4A Ground kit strip tool** for Andrew FSJ4-50B ½" Superflex coaxial cable \$45.00

VDE Lineman Pliers News with chrome plating and 1,000 Volt insulated grips \$30.00 **Universal Snap Ring Pliers** Set Used universal snap ring plier set in excellent condition \$10.00 **HUBBELL water resistant pin & sleeve**

receptacles designed for wet locations or outdoor use in rain. I use these same connectors on the generator and power distribution panels which are used for the PCARS Field Day set up in Portage County Ohio. These are excess from when I assembled my mobile generator and power distribution system. They are both NEW IN BOX. HBL4100R12W rated 125/250 Volts 1? @100 Amperes \$175.00 HBL460R12W rated 125/250 Volts 1? @60 Amperes \$150.00 **Contactors /Industrial Relays** that would be great for step start relays in an amplifier building project. The CL25A310TJ is a three pole rated 32 Amperes @ 600 Volts and will accept #8 thru #14 wire. It has 120 Volt A.C. coil. The CV01A400T is a 4 pole rated 25 Amperes @ 600 Volts and will accept #10 thru #14 wire. It has 120 Volt A.C. coil. I have one auxiliary contact as shown in the photo. It will go to the first purchaser and will mount on either of these relays. \$40 each

STAINLESS STEEL ¼" GUY WIRE, This is left over stainless steel aircraft cable that I used in a recent tower project. I have two coils, 130' for 85.00 & 150' for \$90.00, or both coils for \$140.00

Contact: Call or text James, KD8VT at (330)-206-4909 [10/02/20]

For Sale: Hi-Z SIX Direction Triangular Array Receive System – Including THREE DX Engineering AL24 Vertical Elements. Most components are new/not used. Package consisting DXE p/n HIZ-3-LV2-50 6 Direction Array System and 3 (three) of part number DXE-AL24 Vertical element kits. Hi-Z Antennas Triangular Array Systems offer 6 selectable directions of improved, low-noise receive performance and 30 dB front-to-back directivity for the 160, 80 and 40 meter bands, with useful reception from below the AM broadcast band through 30 MHz. \$650

Contact: Mark, W8BBQ at: W8BBQ@AOL.COM or text to 330-770-5442 [08/02/20]

For Sale: Yaesu FT-1000MP AC Version(No power supply required), great contest or DXing radio - excellent condition with operator manual, has extra crystal filters and Inrad roofing filter installed. \$750.00 **Yaesu FTDX5000MP Limited** - 200 watt 160 thru 6 meter transceiver - AC powered, 300 Hz / 600 Hz / 3 KHz roofing filters, two independent receivers, operator manual, with custom equipment cover and Nifty Accessories reference guide. In like new condition, original boxes, \$2995.00 Can demo these transceivers at my station, local pickup preferred, will deliver up to 50 miles

Contact: George, K3GP at: 330-829-9504 evenings or weekends. [08/02/20]

FOR SALE: ICOM IC-7610 - Brand New, *still in the box*. Decided to upgrade antennas instead of radio. Unopened box \$2599. **RC-28 - Remote Encoder** for the IC-7610 to easily operate the second VFO - Brand new - **\$200**. **8 Switch Memory External Keypad for the IC-7610/7850/7851**. Instant access to the 8 stored outgoing messages. Made in Germany by DM2RM. Brand new - \$60. **Cushcraft Ten-3** Three element **10 meter beam**. Cost new \$299.95 - **Sell for \$150.00**. This beam helped me make 7,651 ten meter contacts on a tripod on my roof. Great shape & ready to use. Had the roof replaced and took down the antennas. Will be putting up tower and Opti-Beam antennas - if the ground ever dries out..... well, maybe in Spring or Summer..... **Contact: Tom "Parky", KB8UUZ - kb8uuz@gmail.com** [08/02/20]

From N1FMV Did you really buy this? (Classifieds)

9:00 am - Monday - Ham buys megabuck new amplifier

9:05 am - XYL hears "CQCQCQ OM" coming out of her coffee pot

9:10 am - XYL investigates and finds ham and asks him what's going on but he ignores her and continues "CQCQCQ OM"

9:15 am - XYL finds sales receipt on the floor

9:20 am - XYL accidentally knocks ham over head with cast iron frying skillet during freak breakfast accident

Two weeks later.... XYL sells megabuck amplifier at tearful yard sale.

Three weeks later.....XYL and best friend of deceased ham use the money to jet off to Cancun. Just another tequila sunrise.

And you say there isn't any chance of getting almost new ham gear.....



New ARRL Amateur Radio Webinar Series

ARRL Members to Lead New 30-Minute Amateur Radio Webinar Series

ARRL is launching a new webinar series to help introduce more members to the variety of activities and opportunities that radio amateurs enjoy. The [ARRL Learning Network](#) will offer live presentations by member-volunteers, for members. Like hamfest forums and radio club presentations, the webinars are intended to help participants get more active, involved, and engaged in amateur radio.

Presentations are 30 minutes each, making them easy to fit into a lunch break or as a short evening activity. A 15-minute question-and-answer period follows each presentation for those who can participate longer. The webinars will be hosted initially using *GoToWebinar*. Webinars will be recorded, and some presentations will be available for future viewing by members and ARRL-affiliated radio clubs as part of an ARRL Learning Network library.

A [running list](#) of upcoming live presentations is available. The web page is the place to register to attend each webinar and requires members to log onto the ARRL website. Some presentations:

Relay Stations and the Art of Traffic Handling

Aaron Hulett, K8AMH, Section Traffic Manager for ARRL North Texas Section
Tuesday, July 28, 2020, 10 AM PDT / 1 PM EDT (1700 UTC)

Fun with Digital Signal Modes FT4 and FT8

Anthony Luscre, K8ZT
Thursday, July 30, 2020, 12:30 PM PDT / 3:30 PM EDT (1930 UTC)

HF Wire Antennas

George Cooley, NG7A, ARRL Life Member
Thursday, August 6, 2020, 12:30 PM PDT / 3:30 PM EDT (1930 UTC)

Introduction to Digital FM Modes

Korey Chandler, Sr., WA5RR
Tuesday, August 11, 2020, 5 PM PDT / 8 PM EDT (0000 UTC on Wednesday, August 12)

Introduction to Computer Logging

Steven Lott Smith, KG5VK
Thursday, August 13, 2020, 12:30 PM PDT / 3:30 PM EDT (1930 UTC)

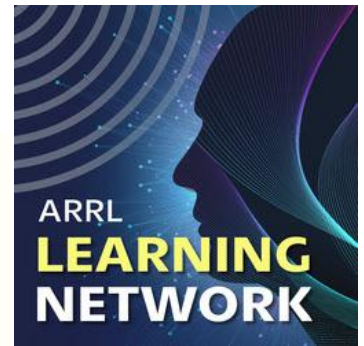
Capture the Magic of 6 Meters

Jim Wilson, K5ND
Tuesday, August 18, 2020, 10 AM PDT / 1 PM EDT (1700 UTC)

The Sport of Finding Hidden Transmitters on Foot

Robert Frey, WA6EZV, ARRL Amateur Radio Direction Finding Committee
Thursday, August 20, 2020, 12:30 PM PDT / 3:30 PM EDT (1930 UTC)

The webinars continue a string of new ARRL benefits introduced in 2020 that has included [On the Air](#) magazine, expanded member access to all ARRL digital [magazines](#), and the new [On the Air](#) and [Eclectic Tech](#) podcasts. "The ARRL Learning Network puts experienced member-volunteers at the forefront as a regular source of knowledge-sharing in amateur radio," ARRL Lifelong Learning Manager Kris Bickell, K1BIC, said. "We hope members participating in the ARRL Learning Network, including presenters, will find it particularly rewarding to share experiences and learning that will motivate more of our community toward lifelong journeys as radio amateurs." Members who would like to be considered for future ARRL Learning Network webinars should have experience in delivering presentations, including familiarity with online webinar technology, live video, and screen sharing. Prospective presenters may complete a [Call for Speakers](#) form.



From the ARRL Ohio Section Manager



Scott, N8SY
ARRL Ohio Section Manager



Wow... another a hot week last week! Please be sure to keep yourself hydrated. Drink lots of fluids and remember heat prostration and heat stroke are something to keep at the top of your mind when outside or even working hard inside when the temperature is this hot.

I don't know about you, but here in the big metropolis of Lexington we haven't had a drop of rain for many weeks now. The grass and other plants have all but shriveled up and now dying off. I want to remind all of you that this is not the time to have a campfire going, at least around here! I know that we'll all be wishing for warm weather come about January / February for sure!

Ok, moving on to another subject... ARES Connect comes to mind. Have you looked at the breakdown per county on the ARES webpage? There is a listing posted per county of the hours recorded in ARES Connect. These are the hours of actual volunteers and not anonymous hours. Want to see how many hours your county has gotten so far?

Go to... <http://arrl-ohio.org/SEC/ARES-Connect-County.html> This page is updated regularly, so you can see what is happening in real time in your county. Don't see hours recorded in your county? That's because you haven't done your part and gotten your time recorded. Don't know how? Let me know, I'll teach you everything that you need to know to get you started.

Have you seen the latest Section Emergency Coordinators report? If not you can view it by going to:
<http://www.arrl-ohio.org/SEC/reports/2020/ARES%20Connect%20Monthly%20Report%20-%20June%202020.pdf>

Whelp, my final go around before gong QRT... Stay safe my friends! I want to see all of you soon at a meeting or hamfest! We will get through this and when we do, we'll have so much to talk about. Most of all... have FUN and get on the airwaves!!



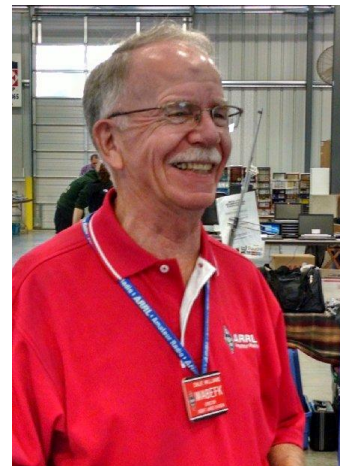
PCARS K8BF
The Club that puts the FUN in Ham Radio!



From the Great Lakes Division Director



Dale, WA8EFK
ARRL Great Lakes Division Director



Greetings, welcome to "Dale's Tales"

In July of 2017 the ARRL Board of Directors instituted a program to honor ARRL Members who had reached the age of 100 with 40 years of ARRL membership. It is called the "ARRL Centurion Award". We recently had the privilege of honoring one of our own Great Lakes Division members who has achieved that goal. Through the efforts of Glenn, AF8C, we were made aware that Norm Fleming, W8PJ met those qualifications. The ARRL Board commemorated Norm with a plaque on Tuesday July 28. Our goal was to make an in-person presentation, but as we all know, many in-person visits are not possible. Courier delivery did make it possible to get the award to him and we are pleased that Norm can now display his plaque for all to see. Our heartiest congratulations go to Norm, W8PJ on achieving this goal. Norm, by the way, just celebrated his 103rd birthday, all the more reason for another celebration.

The ARRL Board met for their July meeting via Zoom as was recently reported in the ARRL Letter. That meeting currently stands in recess and will resume soon to complete the remaining few agenda items including the new ARRL CEO selection. This has been a long journey involving many well qualified candidates all sincere in their desire to support ARRL and help it continue its leadership role in Amateur Radio.

In last month's Dale's Tales, I had also mentioned the search for a new Emergency Communications Director for ARRL. That effort is bearing down on the finish line and we should see the results soon. The position of Emergency Communications Director was created to provide a leadership position that would be allow us to increase the emphasis on the Amateur radio Emergency Service (ARES[®]), EMCOMM in general and the important role Radio Amateurs offer in times of Disaster. The EMCOMM Director will be responsible for the relationships ARRL holds with served partner agencies nationally and the continuing goal of developing and maintaining an effective ARES organization.

HAMFESTING: If your swap is cancelled or the date is going to change, please notify ARRL HQ. We work together with the HQ staff to verify all new date selections in the hope of mitigating date conflicts.

Here is the current listing of Great Lakes Division ARRL Sanctioned hamfests remaining through the end of 2020. Please note that all are subject to change, so please stay current by checking the sponsoring club's web page before making your travel arrangements. To date, we have had 33 Great Lakes Division hamfests that have been canceled due to Covid-19 and almost an equal number that did not even schedule their event because of venue restrictions and government requirements.

Still on the calendar:

9/12/20 Grand Rapids GRAHamfest, Wyoming, MI **10/10/20** Northwest Ohio ARC Hamfest, Lima, OH
10/24/20 Hazard, Hazard, KY **10/25/20** USECA, Madison Hts, MI **12/5/20** Fulton County Winterfest, Delta, OH **12/6/20** L'anse Creuse, Madison Heights, MI

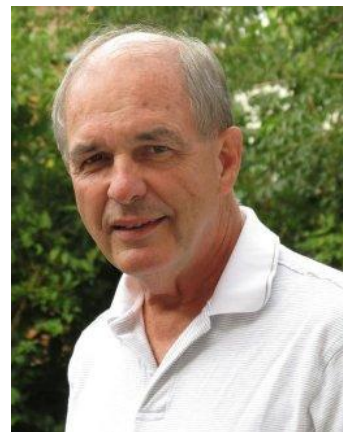
For the latest detail on cancelled hamfests, check the ARRL web page at:
<http://www.arrl.org/hamfests/search/page:5/keywords:Canceled/model:Event>

From the Great Lakes Division Vice Director



Tom, W8WTD

ARRL Great Lakes Division Vice Director



There are only a few hamfests left for 2020 on the Division calendar. Unfortunately, if they follow the current pattern, they may get cancelled as their dates get closer. We're all hoping for a better year in 2021.

Like club meetings, some things have moved on-line. DX Engineering held a hamfest a week ago, with excellent presenters on a variety of topics. Not the same as being there, but worthwhile. And coming up in a few weeks is a "virtual" hamfest titled: QSO Today Virtual Ham Expo. This one promises to be more than just one long "zoom" session, so it may be worth checking into. You can find details on the ARRL website.

If your club hasn't tried meeting over video, I suggest that you do. There are many platforms out there, and Zoom is just one of them. The face-to-face contact can be helpful for clubs as you try to maintain contact and make plans for whatever activities that you can still safely do.

There has been some uptick in actual radio contacts these past several months. Some repeaters have gotten busier, and some not. In addition to increased interest from hams, there is still interest out there from non-hams for getting licensed. Many clubs have postponed their class sessions, saying "check with us in the Fall." Well, the fall is getting close, and it may still be hard to hold in-person classes. How many clubs have experimented with on-line sessions? Again, with the variety of video platforms, it's a matter of trying something. Educators from grade school through college have had to adapt. If your club has a plan, please share it with others. How are we going to help new hams get into the hobby? Maybe you've got a good idea. Let's hear about it.

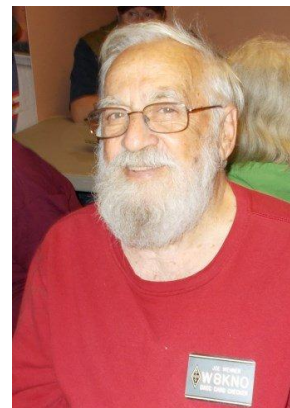
And that's just part of the challenge. The other is testing. Besides new hams, some people are taking advantage of having more time to study for upgrades. They will want to be tested so they can advance. In the warmer weather, it's possible to hold sessions outdoors, but soon it will be too cool or downright cold to be outdoors. Some of the traditional venues may still not allow us inside for our usual testing sessions. I'd like to call your attention to an article on the ARRL website about remote testing. Some hams are more technical than others. Those who are up for the challenge might want to get in touch with the proper people and see what they can do about innovating in the "remote testing" area. You can read the full article here: <http://www.arrl.org/news/remotely-administered-amateur-exam-systems-showing-promise>

Finally, for those of us who are long-time hams, the Lifelong Learning program of the ARRL has announced the ARRL Learning Network, beginning with a series of webinars starting in July and through August, with more planned after that. Of note, two of the presenters are from the Great Lakes Division. By the time you read this, Anthony, K8ZT, will have presented a webinar on FT4 and FT8. And coming up later in August, Bob, WA6EZV, will talk about "The Sport of Finding Hidden Transmitters on Foot." Of course, we'd like to support our fellow hams from the Division, but all of the topics could be of interest, so be sure to check the list on the ARRL website. <http://www.arrl.org/news/arrl-members-to-lead-new-30-minute-amateur-radio-webinar-series>

Stay safe, and get on the air!

Paper Chase - Appalachian Trail

Joe, W8KNO



Looking for something interesting to get you on the air, this is appealing. The Franklin Amateur Radio Club of Franklin, N.C. will have a Special Event station on the air to celebrate the 83rd Anniversary of the opening of the Appalachian Trail. The opening occurred August 14, 1937. The Trail is 2,181 miles long from Springer Mountain in Georgia to Mount Katahdin in Maine making it the longest marked footpath in the world. The ARC will activate the special event from Rock Gap Trailhead.



Now that you might be interested, when and where do you find the special event? The special event occurs Saturday the 15th from 10am to 3pm, our local time. Look for **N4F** on 7.265 SSB, 14.265 SSB, 7.045 CW, or 14.045 CW.



To obtain a QSL Card, send your QSL card with SASE to Franklin Amateur Radio Club K2BHQ, 505 North Sugar Creek Dr., Franklin, NC 28734.

Good luck and I will be listening for you.



Battling the Radio Beams



Radio Society of Great Britain

Advancing amateur radio since 1913

The following feature article "**Battling the Radio Beams - Part 2**" was originally published in the June 2020 issue of RADCOM - the official magazine of the Radio Society of Great Britain (RSGB). I contacted Elaine, G4LFM at the RSGB and was granted permission to re-print this feature article in the PCARS newsletter.

This article is copyright of the Radio Society of Great Britain and reproduced with their kind permission. For more information on the RSGB - See their web site at www.rsgb.org



Battling the Radio Beams

Part 2: Bromide, Domino and Benjamin

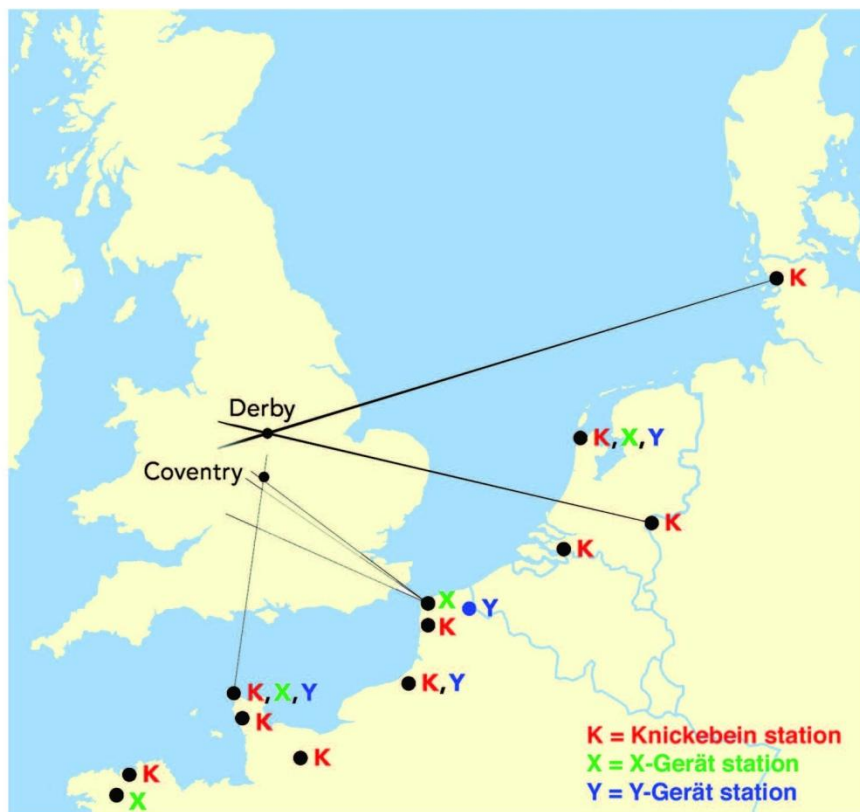
Radio amateurs played a pivotal role in electronic countermeasures during WW2.

In Part 1 we saw how the RAF used amateur radio receivers to discover the Knickebein system of radio beams that the Luftwaffe employed to guide its night bombers to targets in Britain. 'Aspirin' jammers for this 'Headache' had been developed by TRE and deployed successfully by 80 Wing, and the system was considered no longer usable for accurate navigation. But the enemy had other tricks waiting in the wings.

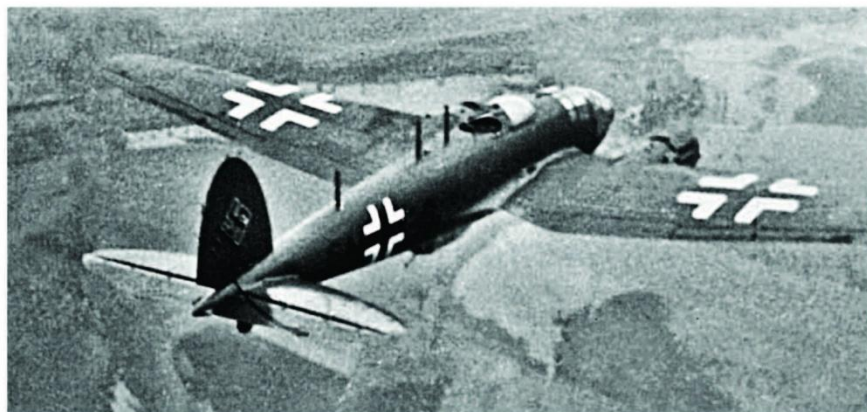
X-Gerät

On 6 November 1940 a raiding Heinkel III bomber that had suffered compass failure over England tried to return to its base in occupied France by using a radio beacon at Saint-Malo. But the beacon was being jammed by 80 Wing, so the crew became disorientated and instead of landing in Brittany the plane ran out of fuel and crash landed just offshore from the beach at West Bay in Dorset. British Army soldiers waded into the shallows and secured a rope around the fuselage, but then the Royal Navy arrived and claimed that because the plane was in the sea it was theirs to salvage. When the sailors towed it into deeper water to secure it to a ship, the rope parted and the plane sank to the bottom!

In spite of this incident the waterlogged radio equipment on board the aircraft was recovered and sent to RAE Farnborough, where it was found to include a new type of bombing radio navigation aid called X-Gerät. This system was considerably more sophisticated than Knickebein, having both coarse and fine director beams and 20 operating frequencies in the higher frequency range of 65-77MHz. The X-Gerät system also laid three very narrow crossbeams across the director beam prior to the target, which allowed the aircraft's ground speed to be determined and the bomb release point to be computed by a special 'bombing-clock'



Locations of the radio beam transmitters in 1941. (Courtesy of Bill Rankin, www.afterthemap.info).



The three dorsal antenna masts reveal that this Heinkel 111 was an X-Gerät pathfinder.

mechanism on board the plane.

The 0.05° fine director beam was so narrow that in calculating its bearing 5-figure log tables had to be used to take account of the fact that the earth isn't a perfect sphere (it's slightly flattened near the poles). A result of the antenna configuration required to achieve this high directivity was that the radiation pattern had 14 lobes, several of which the bombers had to fly across to find the true guide beam. The crossbeams also had multiple sidelobes, and as the flight progressed the aircrew had to resolve the ambiguity by counting them until they reached the genuine first marker beam. These sidelobes also complicated 80 Wing's task of determining the target.

Since the X-Gerät system required special equipment and trained aircrew operators, it was fitted only to the bombers of an elite group of pathfinders called Kampf Gruppe 100 (KGr100), whose task was to mark the target with hundreds of 1kg thermite incendiaries, on which the main force would bomb visually. But the poor ballistics of these incendiaries resulted in considerable spread and they didn't have a special flare colour to distinguish them from fires caused by misdirected bombs. Learning from experience with Knickerbein, the 500W X-Gerät transmitters emitted spoof beams before each raid, while the real ones weren't turned on until as late as possible, a tactic that sometimes confused the bombers as much as the defenders. Fortunately for the Allies, KGr100 was based at Vannes, far to the west of France and beyond the reach of secure German military landlines, so the unit had to use wireless for ground communications. This allowed the control messages to be intercepted by the Y Service and radio amateur VIs and decrypted at Bletchley Park.

With these decrypts, Jones was able to deduce how the operating frequencies were related to the receiver settings that were transmitted to the pathfinders before each raid. Using this information, Cockburn's team at TRE rapidly introduced 100W X-Gerät jammers called 'Bromides' that were equivalent to the Aspirins for Headaches. Nevertheless, Bromide proved ineffective during the devastating 10-hour raid on Coventry, even though the jammers at Birdlip Hill, near Gloucester, Kenilworth and Hagley were well within range. This was because their modulation tone was set to 1500Hz, whereas the X-Gerät receivers had a sharp audio filter centred on 2000Hz.

The mistake was corrected before the raids on Birmingham five days later, when the Luftwaffe bombers were partially disrupted and dispersed. By April 1941, 80 Wing had enough Bromides to disrupt all the X-Gerät director and crossbeam frequencies



The X-Gerät 'bombing-clock' measured the time to fly between two crossbeams to determine the bomb release time. (Horst Beck Collection, photo Frank Dörenberg, N4SPP/F4WCN).

and no other inland British city was to suffer such highly concentrated damage. In spite of at least eight attacks on the Rolls-Royce works at Derby during WW2, only a single bomb actually hit a factory building.

Except on moonless or cloudy nights, no radio aids were required to find the sprawling metropolis of London. But specific industrial assets in the city couldn't be targeted accurately without the help of reliable beams and the enemy bomb loads were scattered over almost 100 boroughs. Although no longer used by raiding bombers, the 65-77MHz X-Gerät transmitters were kept functioning as decoys until they were finally dismantled in November 1942.

Y-Gerät

As early as mid-1940, when the existence of the Knickerbein beams was confirmed, Enigma decrypts from Bletchley Park included mention of what appeared to be another system, code-named 'Wotan'. Since this is the name of a Germanic God with only one eye, Jones guessed that it might refer to a new navigation aid that used only a single beam. It turned out that this reasoning was wrong but the conclusion was perfectly correct! Monitoring stations began to report beam signals between 42.1 and 47.9MHz that had different characteristics, with alternate right and left signals of equal duration transmitted at a high rate, for they were decoded in the aircraft electronically rather than aurally. The bearing analyser was coupled to the modified He 111 autopilot by an automatic flight control system that was much ahead of its time.

This more advanced 'Y-Gerät' system reduced the number of confusing sidelobes by switching between a cardioid and a more directive antenna pattern. It achieved very accurate slant ranging by transmitting a 300Hz, 3kHz or 7.5kHz tone-modulated carrier to a transponder in the aircraft

on one frequency, and comparing the phase with the return signal carrying the same modulation sent back from the aircraft on a different one. The range measurement was made by the ground controller, who used a version of the X-Gerät stop-clock to determine when to order the aircraft to release its bombs. Since the system was more complex and could only operate with five aircraft at a time, Y-Gerät equipped planes were formed into a specialised pathfinder group (Group III of KG26) that led the main bomber stream.

III/KG26 made the error of practising using Y-Gerät for many weeks before trying it on a major bombing raid. So Cockburn's team had time to analyse the signals and devise a subtle countermeasure called 'Domino', which was ready for action on the very first night that the system was used for a large-scale attack on Britain. They borrowed the powerful BBC TV transmitter at Alexandra Palace, which by chance operated in the same frequency band and had been shut down at the outbreak of war lest it be used by the Luftwaffe to home on London. An EMI TV receiver was set up at the former outside broadcast relay station at Swains Lane in Highgate, with its bandwidth enlarged to accept both the ground control transmission on 42.5MHz and the response from the pathfinder bomber on 46.9MHz. From there, the modulation signal was sent by Post Office landline to Alexandra Palace, together with a subdivision of the carrier frequency that allowed the TV transmitter to zero beat with the ground transmission. At Swains Lane Ewart Farvis sat listening to the German radio communications with his finger on a key that controlled Alexandra Palace remotely. At the critical moment, he sent the modulation back to the aircraft on 42.5MHz, using a power that was sufficient to give a false range indication but not enough to arouse suspicion of jamming.

Thirty years after the event, when Farvis finally felt free to tell me about this secret war work, he described the result as hilarious. Being fluent in German, he could follow the acrimonious radio dialogue between the bewildered young bomber aircrew and their ground controller as they argued about the cause of the perplexing behaviour of their instruments. The aircrew accused the ground station of sending bad signals, while the ground controller attributed the problems to airborne equipment failure, probably due to a loose wire. He even told the distraught operator to "thump the box", which caused Farvis to remark that he was evidently a *real* radio man! The jamming was repeated successfully with more pathfinders before the Luftwaffe abandoned the attack.

At TRE, Farvis went on to analyse the signals of the German VHF Identification, Friend or Foe

Dr Bruce Taylor, HB9ANY
bgtaylor@ieee.org

Feature



The Coalville Outstation of 80 Wing on the flight path to Derby had Aspirin to jam Knickebein, two Bromides for X-Gerät and Benjamin for Y-Gerät. In 2013 Loughborough ARC operated GB8CHG from the site. (Charley Heritage Group, Bluesky/Google Earth).

(IFF) system, allowing the team to develop the 'Perfectos' radio device that RAF night fighters used to trigger the transponders in enemy aircraft, to determine their positions without using radar. Following the deployment of Perfectos, many Luftwaffe crews flew with their IFF switched off and were shot down by their own side's flak. After the capitulation of Germany, Farvis was given the temporary rank of Squadron Leader (and a revolver) when he was flown to Munich to interrogate German engineers and scientists. He had a fruitful discussion with the designer of X-Gerät and Y-Gerät, Johannes Plendl.

Benjamin

Having established an effective countermeasure for the ranging system of Y-Gerät, Cockburn lost no time in manufacturing production versions of Domino, which could also deal with rapid frequency changes that were sometimes made in the middle of an operation. Although a Domino station on Beacon Hill near Salisbury was attacked by a small force of bombers it was soon back on the air and, during the first two weeks of March 1941, only 18 aircraft of 89 Y-Gerät sorties received the bomb-release signal.

Domino was an effective but complex countermeasure, requiring two-way communication between jammer and aircraft. But Cockburn soon found that Y-Gerät navigation could be disrupted by an even simpler form of jamming. When three Heinkel bombers were shot down during a raid over Liverpool in May 1941, the vulnerability of their Y-Gerät signal analyser was studied in detail at Farnborough. It was found that a short gap between the pair of direction signals was essential for the electronic bearing analyser to lock to the beam. By filling in this gap by transmitting a continuous note on the beam frequency, the analyser unlocked and gave no useful indication. Within three weeks 80 Wing had a new jammer on the air that used this technique, and five more were operational before the end of the month. Cockburn called it 'Benjamin' (for 'Ben jamming', since Benito was the British codename for Y-Gerät).

The Luftwaffe eventually realised that Y-Gerät had been compromised from the first day that it was used. Bomber pilots no longer put any faith in wireless navigation aids, making the accurate night bombing of inland targets very difficult. In one raid the crews that thought they had bombed Nottingham dropped their weapons in open country 15 miles east of the city, killing two chickens with 230



The Alexandra Palace TV transmitter was used to disrupt Y-Gerät on 42.5MHz. (Photo based on Duncan Harris/CC-BY-2.0).

high explosive bombs, one oil bomb and five sticks of 36 incendiaries. In some raids bombing was so scattered over the southern counties of England that it was impossible to deduce the intended target until it was revealed by the crews of downed bombers. Meanwhile, the tide of war began to turn. The experience of 80 Wing proved invaluable when the Allies began to take the fight to the enemy and in the summer of 1942 the RAF used radio beams to guide the bombing of the Krupp arms factory in a precision night attack through ten-tenths cloud.

Conclusion

In his memoirs on the Battle of Britain, Churchill wrote one sentence about the vitally important role of radar, but eight pages on the German radio beams. Were it not for Jones, Scott-Farnie, Cockburn, Farvis, TRE, 80 Wing and the efforts of numerous dedicated radio amateurs, there would undoubtedly have been many more instances like the destruction of Coventry. Without effective electronic countermeasures, concentrated pin-point bombing might well have destroyed the British aero-engine and Spitfire factories, changing the course of the war. In a light-hearted tribute at the end of the conflict, he wrote, "You certainly did pull the crooked leg".

Correction

We apologise to Dr Taylor and readers for the following errors that were introduced into Part 1 of this feature.

The Knickebein antenna shown on page 80 (May) is of the compact type and isn't 60m high. The total distance from the bottom to the top of the stacked dipoles is less than 10m, which makes the total height of the structure less than 20m above ground. Even the giant antenna at Stollberg Hill was much less than 60m high, although it was 90m wide.

The photo on page 82 isn't a Knickebein antenna, although it does bear a resemblance. The one shown doesn't have the 'crooked leg' angle characteristic of Knickebein. It is instead a photo of a 'Bernhard' radio navigational beacon, which had no connection with the bombing beams.

Mike, N8WCP



The PCARS Flex Net is open to all hams and will be held on the second Wednesday of the month at 8:00 PM. Each month we'll use a different band or mode. This net does not replace the weekly Thursday night 2 meter net so keep checking into that net!

The Flex Net will begin with a typical check-in process. Once check-ins are complete, each station will have the opportunity to work the other stations similar to a DX net. Since we're working simplex, it would be helpful to have alternate net control ops. If you're interested in being an alternate control op, please email me at n8wcp.us@gmail.com.

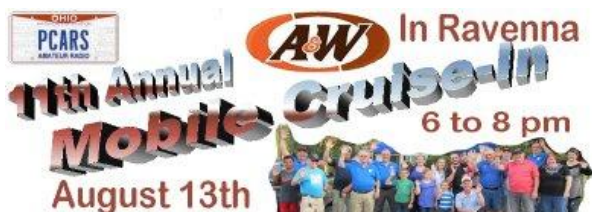
Below is the tentative net schedule which is subject to change. We'll use the K8IV 146.895 repeater as backup in case we need to move off the scheduled frequency so please monitor the repeater at net start time. Let's have some BIG FUN!



DATE	TIME	BAND	FREQUENCY	MODE
08-12-20	8:00 P	6 M	50.135	USB
09-09-20	8:00 P	40 M	7.220	LSB
10-14-20	8:00 P	2 M	146.400	FM
11-11-20	8:00 P	80 M	3.910	LSB
12-09-20	8:00 P	6 M	50.400	AM

We had (5) check-ins to July's Flex Net which included a station in Houlton, MA.

Call	Name	Location
K8CAV	RICK	HIRAM
KD8WCK	RICK	SHALERSVILLE
KB8TUW	MIKE	RAVENNA
KB1MCT	FORREST	HOULTON, MA
N8WCP	MIKE	ROOTSTOWN



Ohio State Parks On The Air



The Portage County Amateur Radio Service, Inc. (PCARS) announces the **13th Annual “Ohio State Parks On the Air” (OSPOTA)** contest, from the hours of 10 am to 6 pm EST (1400 UTC to 2200 UTC).

13th OSPOTA - September 12, 2020	14 th OSPOTA - September 11, 2021
15 th OSPOTA - September 10, 2022	16 th OSPOTA - September 9, 2023
17 th OSPOTA - September 7, 2024	18 th OSPOTA - September 6, 2025
19 th OSPOTA - September 12, 2026	20 th OSPOTA - September 11, 2027

Always the first Saturday after the Labor Day holiday.



For hams throughout the State of Ohio, this is your opportunity to visit and enjoy the amenities offered by the 75 beautiful State Parks here in Ohio. Don't just make a day of it - spend the weekend at the park of your choice. No matter whether you are camping or staying at one of the outstanding lodges or resorts, you will find that the parks are one of Ohio's greatest assets. Find out more about the Ohio State Parks at: <http://parks.ohiodnr.gov/>

In past years, hundreds of Amateur Radio Operators (hams) from around the country participated in the event. With the success of OSPOTA, we hope to have amateur radio operators at every Ohio State Park.

This contest places a premium on working stations located in the Ohio State Parks. That means that it is critical to have as many parks activated as possible. The challenge for Ohio stations will be to work HF in the 50 to 300 mile range. This is the perfect opportunity to learn more about the design and deployment of Near Vertical Incident Skywave (NVIS) antennas. You can find numerous designs on the Internet and in various Amateur Radio antenna manuals. Along with your operating skills, it will be a chance to showcase your antenna building skills as well.

Individuals and multiple operators can operate Ohio State Park stations. Non-park stations in Ohio as well as stations outside of Ohio can also compete.

Contacts can be made on 80, 40, 20, 15 and 10 meters using SSB. All contacts have the same point values.

Make sure that you read the Rules, FAQ's and get your forms for the contest that are posted on the OSPOTA website: www.ospota.org before the contest.



So get to an **Ohio State Park** and get **On The Air** in September. Have some fun with this contest! Learn more about PCARS at www.portcars.org.



73 for now,
OSPOTA Contest Committee

January 12, 2020



Field Day 2020 - How Did YOU Do?

Field Day 2020 is one for the books. With all that is going on with the COVID-19 situation, this year's Field Day was very different. The majority of clubs made the decision not to have the normal Field Day gatherings (that we so dearly love to attend) in an effort to keep members safe. PCARS encouraged individual operators to run the event from their home and to enter "Portage County Amateur Radio Service" as their club affiliation. We'll see what the final results are in December when the ARRL publishes the results.



The 22 members that submitted their logs to the ARRL were:

AD8FQ	1D
K3GP	1D
K8CAV	1D
K8IV	1E
K8SRR	1D
K8YLK	1D

KA8TOA	1D
KB8TUY	1D
KB8UHN	1B1
KB8ZWT	1D
KD8CGH	1B1B
KE8BWA	1D

N8WCP	1B1
KE8MWD	1D
N8GIE	1D
N8QE	1E
N8QZ	1E
W8AHC	1D

W8KNO	1B1
W8YIH	1E
WA8US	1D
WB9LBI	1D

Notes sent in on Field Day 2020:

Participated in Field Day from my property for a few hours on Saturday and Sunday. Threw a wire up in a tree and ran my KX3 QRP off batteries and a solar charger. Computer was an Asus Transformer Mini that runs off 5V with a collection of USB 5V backup batteries, one of which was also solar charged. I had some success with CW, one lonely FT8 and no SSB QSOs in spite of many attempts. I listed Portage County Amateur Radio Service as my club. 73 Bob KD8CGH

I switched to generator power for 24 hours and ran as Class 1E from my home. Karen (N8HUC) and I logged 1126 QSOs under KD8VT with the help of Jennifer (KB3GXB) and Andy (KE8ELR) as loggers. We will be submitting as KD8VT under Class 1E. 73, KD8VT AR...

Hi everybody. We had a fun field day. PERFECT WEATHER!!!! All us were learning and made some contacts..We will send logs soon. Thank you to the members who checked out our FD operations. Always nice to have Eyeball QSO's! 73 de W8NET, KE8MXR and KE8MWD



Enjoyed FD. My son was visiting from CA so operations were limited to 11.5 hours but was still able to log 507 contacts. Operated 1B on battery from my detached garage using a home brew linked inverted V supported at 32' by camo poles. It was good to work some fellow PCARS members. Looking forward to a group effort in 2021!



N8WCP

Hi All, Did you operate Field Day? It was definitely a bit weird without all of the folks and hub bub we usually do with the club. This is actually the first year I slept through most of the night and worked mostly 20 and 40 meters during the day, just for fun I work roughly 6 Q's on 10 meters using my 20 meter Yagi, ha ha . I did take some breaks for lunch and dinner just to get out of the seat and walk around to stretch out . I operated only phone using Generator & Battery for 100 percent of the time (1E) , the little stingy Honda used less than a gallon of gas. For 40 meters I used the Field Day trailer parked in the back yard with a wire inverted Vee at 70 feet. Also in the back yard the Field Day 20 meter Yagi was put to use., in hind sight probably should have lowered the Yagi down to 35 or 40 feet which could have helped but it worked out fine. I haven't listed the break down yet but my total Q's is 1003 (again phone only), I did have some pretty good runs both on 40 and 20, worked most of the sections minus a few Canadian and Mexico. I wanted to work all of the West Coast folks at one point so I S&P'd for a bit , it became pretty boring and seemed forever so I went back to running. Good time, but really missed all of the other folks we normally do this with, I really missed the group Station and Antenna setups, the great dinner time and just plain comradery ! Ed, K8IV

=====

I ran class 1D. Rang up 101 contacts. Worked hard at search and pounce. Next time will try to sit on a freq and call CQ. Worked 3 on 10M. Submitted log today with Portage County Amateur Radio Service as club info. John Brock WA8US

=====

Finally submitted my FD info to the ARRL. First time I've entered data for a contest. In the past it's been a casual experience or attempting to get a few new DX stations. I added a couple more contacts (due to operator error) on 80 for a revised total of 550 points. Great Fun! 73, Paul N8QZ

=====

John N8GIE and daughter Jenna KD8GHA having fun and making some contacts on Field Day 2020.

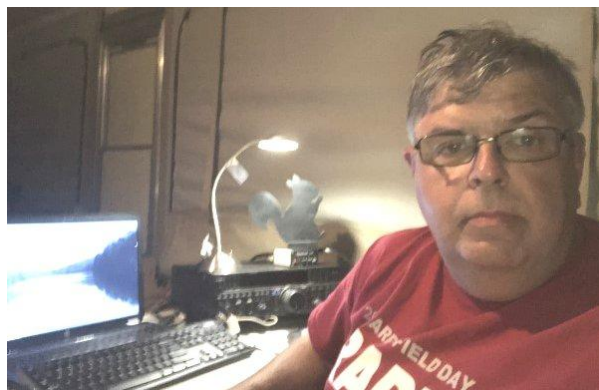


Kids returning to school after Corona.



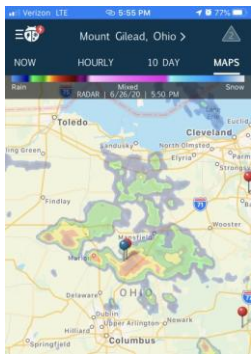
Field Day 2020 - KD8MQ

John, KD8MQ



What a Field Day we had this year. I'm sure I'm not the only one with a story to tell. But, Field Day 2020 is one that I'll never forget.

I had already made plans to operate 1B even before the Pandemic closed everything down. It started innocently enough; I was feeling a bit burned out after several years as chairman of the Alliance FD effort. So, I reserved a space at Mount Gilead State Park for this year's event. I was looking forward to running solo this time.

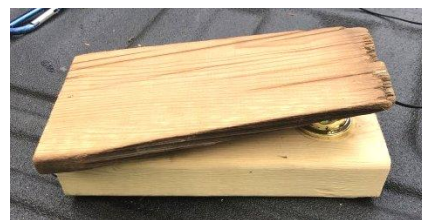


I arrived, and set up camp on Friday afternoon just shortly ahead of a thunderstorm which was moving through the area. The storm hit around dinner time, just as I returned from a run to the grocery store.

After dinner, I found out that my hand mic was MIA. I did bring my headset mic, but my foot switch was also on the missing list. I used my CW paddle to improvise a PTT switch, and made a few contacts on Friday night.

On Saturday morning, I made a trip to the local Hardware store. Joe's True-Value in Mt. Gilead is an old-time hardware store that doesn't have everything, but usually has everything I need. It's the way I remember hardware stores being when I was a kid.

Back at the campsite, a trip to the wood pile, and 45 minutes later, I had built a MacGyver-style foot switch. The inscription reads "*Mt. Gilead, Field Day 2020, KD8MQ 1B OH, Always remember your foot switch!!!*". Not bad for spur of the moment. I guess.



The bands were not great from my vantage point. At first, I had trouble being heard. Part of the issue turned out to be a bad barrel connector in the feedline to my G5RV. Once that was replaced, things improved a bit, but it was still difficult to get through the avalanche of class D & E stations. I finally gave up and switched over to CW mode, which helped a lot! I didn't make a lot of FD contacts; only 151 (88 CW/63 SSB). 40 Meters was my money band, followed by 80, 15, 10, 20 in that order.

I hung out until Monday morning before heading for home. I was pretty popular with the park chasers. My numbers from the weekend were a bit more impressive, with 269 contacts made from KFF-1979 (Otherwise known as Mt. Gilead SP).



I had one more thunderstorm hit on Sunday night. That's when the GFCI on the camper power converter died. For the last night at the campground, I had no electric for anything but the radio. I had to keep my priorities straight, after all.

I'll be back at Mt. Gilead in September for the Ohio state Parks on the Air Contest. More on that next month.

Field Day 2020 - K8CAV

Rick, K8CAV

What a Field Day we had this year. I'm sure I'm not

For almost all of us, change is rarely pleasant to contemplate and react to. From the comments I've heard so far it seems that many PCARS members rose to the challenge of not having a traditional Field Day and had a lot of fun doing it. My Field Day was both of those, a challenge and a very enjoyable opportunity.

Operating at home class 1D allowed me to do a few things we haven't done at the Flex Station during PCARS Field Day, so I did some planning to set goals and expectations for my Field Day. These are the things I expected to accomplish:

- Operate the HF bands, Class 1D using 100 watts phone and digital with emphasis on digital
- Operate in the newer WSJT-X FT8 and FT4 Field Day contest modes
- Operate PSK-31 and RTTY in the traditional digital modes
- Interface both FT8/FT4 and fldigi logging with the N3FJP Field Day logging program
- Take advantage of as many bonus points as possible available to class 1D
- Operate during a substantial portion of the 24 hour Field Day period

With one exception, my expectations were met during my Field Day. I used my home station which consisted of an ICOM IC-7300 interfaced to my laptop, a 260 ft. center fed dipole up about 35 ft., N3FJP Field Day logging program, and fldigi and WSJT-X for digital software. I operated for 16 of the 24 hours of field day, 1400 Saturday to 0200 Sunday and 1000 Sunday to 1400 Sunday. I logged 240 digital QSO's and 56 phone QSO's on 80 meters through 10 meters. With multipliers and bonus points it added up to a submitted score of 1,622 points

- Operating FT8 and FT4 was challenging and rewarding. There is a perception that using these two modes in a contest requires no skill other than punching a key or clicking a mouse, and then sitting back and letting it all happen. Nothing could be further from the truth, it takes as much skill and attention to detail to make the contact and get it logged as any other mode. PSK-31 provided many contacts, but RTTY was almost unheard during Field Day.

- I was able to claim 550 bonus points on my entry. I sent a Field Day article to the Record Courier who published it in their paper, and in an associate newspaper. I sent a formal message to the Section Manager, and ten NTS messages to other people, all leaving my site by RF using Winlink 2000. Bill, WB9LBI picked up these messages and got them into the NTS on a CW net. I was able to copy the Field Day message Friday night, though with the thunderstorms there were a number of hits in the message. Mike, KD8FLZ, who is the Logistics Agent for the Portage County EMA, stopped by and signed my visitor log as a member of a served agency. Finally, I submitted my entry using the ARRL app which garnered bonus points.



- I was able to interface the logging from fldigi to N3FJP, unfortunately I was not able to do so with the WSJT-X program

What went well:

- Interfacing the fldigi log to the N3FJP log worked well. In past Field Days at the Flex Station when a digital QSO was confirmed, it had to be manually typed into N3FJP. This meant potential dupes weren't identified until the call was entered in N3FJP, and it also took more time which is crucial if you are trying to hold and run the frequency. For future PCARS Field Days the Flex Station should be operating using this feature.

- FT8 and FT4 worked very well. Most of the activity was on FT4 due to its shorter turn-around time but on 10 meters especially, FT8 was predominant due to its better weak signal performance.

- PSK-31 activity was plentiful on most of the HF bands. One of my contacts was to Dave Freeze W1HKJ, the author of fldigi!

- I was pleasantly surprised to see 10 meters open and active. I made both digital and phone QSO's on 10 meters.

Issues and problems encountered:

- Antennas! (or the lack thereof). A 260 ft. dipole at 35 ft. works well on 80 meters and 40 meters in NVIS but is ill suited for both 20 meters through 10 meters, and for skip radiation patterns. With the exception of three contacts to the far west coast (see the log map), none of my contacts made it further west than the states bordering the Mississippi River. Adding a 20 meter dipole on the top of my 40 ft. tower for use on 20 meters through 10 meters would improve skip radiation dramatically, a project I hope to have completed this summer.

- The inability to interface WSJT-X logging to N3FJP logging was disappointing. While the process for interfacing fldigi was straight forward, relatively simple, and well documented, the same can't be said for WSJT-X. WSJT-X requires an intermediary program to interface to N3FJP and the process is complex and not well documented. The decision to try and make this interface two days before Field Day did not allow me enough time to work through the issues to get it to work, resulting in duplicate contacts not being discoverable, and necessitating merging N3FJP logs and WSJT-X logs after Field Day to eliminate dupes and provide a single dupe log for entry submission.

That's a lot of gabble about my Field Day but the bottom line is that it was FUN! Certainly not the same experience as our normal PCARS Field Day, and not hob-knobbing with fellow PCARS members was the quintessential "bummer", but it was well worth the time I spent. From the comments I've heard a lot of you participated and feel the same way. It was nice to see the number of PCARS people participating and let's all lift a glass of our favorite beverage to Field Day 2021!



Rick, WA8TSI The Ol' Curmudgeon



Most of you are aware, at least marginally, that I eschew the new (for me) digital modes. I am an old-time rag-chewer. I'm not interested in just exchanging RST numbers, in any mode, then moving on. I would much rather exchange niceties with anyone willing to chat: The longer the chat, the better. I also enjoy reading the voice of the other guy. Vocal emotions seem to come through better when emoticons are absent. I still like to exchange paper QSLs through the mail, too.

However, I am always interested in new communications technologies and advancements. As an amateur astronomer and space nerd, I am also interested in the exploration and colonization of space- especially DEEP space. Deep space communication presents us with certain relativistic limitations. Relativistic: As in the speed of light.

Right now we have a problem with our Mars rovers. It takes far too long to send them a command and receive a confirmation of that command. Radio signals to Mars will take between 4 minutes, or up to 24 minutes, to go one way. The length of delay depends on the relational positions of Earth and Mars in their individual orbits. This situation makes remote control of the rovers tedious, at best. Communication with a Mars colony will be much more critical. Asking a vital question from Mars Base could take up to 48 minutes to get a reply from Earth. We humans are not usually that patient.

If you have been following the research into quantum entanglement, you know that photons, electrons or other particles, linked by quantum flux, react to each other instantaneously. The Chinese have proved that, regardless of distance, it works. What Albert Einstein called "spooky action at a distance" is a fact. Quantum entanglement is real. Because of his theory of General Relativity, Einstein doubted that entanglement could actually happen. To him, it was counterintuitive.

"Can we move beyond radio?" It is possible to envision a system in which a quantum modulator/demodulator is employed. Two photons, electrons, or possibly complete atoms are entangled and kept in stasis. These entangled particles are linked by the quantum flux. In the modulation process, audio, video and/or digital information is multiplexed and sent to a quantum modulator. The modulator, possibly composed of a balanced system of two or more very low power lasers, excites the quantum particle in stasis. As the target responds to the input energy of the modulating lasers, the corresponding quantum particle at the receiving site behaves in exactly the same pattern- and instantaneously, without any time lag.

Most of the reports of quantum communication refer to quantum computing and a future, secure and un-hackable, Internet. However, the fact is that a distance of 12cm, 1200km or 12,000,000,000,000 miles between quantum particles really doesn't matter. The effect is still instantaneous.

Lasers focused on the receiving particle detect the changing state of the entangled particle. This detected information (caused by variations in the corresponding laser beams) may then be demodulated into useful communication. This complex signal may then be de-multiplexed into separate audio, video and/or digital information. Due to quantum entanglement, the time lag between Earth and Mars (or anywhere else) would simply disappear.

Let's be perfectly clear. No radio signal would be employed, at all. This communication would be achieved through quantum entanglement, only. Since entanglement is between two or more specific particles, no

encryption or channelization would be necessary as eavesdropping would be impossible.

Since quantum entanglement is instantaneous, regardless of distance, it would work between Earth and Mars or Earth and Alpha Centauri. What I'm proposing is... wait for it..., wait for it..., and wait for it... Subspace Radio!

If we can envision this type of system, and Chinese scientists can verify it using a satellite, then someone is already working on a practical system. The catch is keeping an entangled particle from wandering around within the modulator/demodulator chamber or being acted upon by stray atoms or photons. This would require a containment field of super-high precision and stability. Once a miniature containment vessel is achieved, cell phone sized devices could span light years or parsecs. We always wondered how Captain Kirk contacted his ship with a pocket communicator! In reality, with a quantum communicator, his ship would never be out of range. By the time a future Enterprise explores the galaxy, they will never be out of contact with Earth base.

I hope that you have enjoyed this brief glimpse of the future. I think it likely that quantum communications will be a reality in the next two decades. For those of you that find this exciting, I encourage you to seek discussions with like-minded individuals.

This link details some of the Quantum Entanglement successes:
<https://www.sciencemag.org/news/2017/06/china-s-quantum-satellite-achieves-spooky-action-record-distance>

Hmmm... this kind of redefines "CQ DX"!

Hamfest Calendar - Cancellations

Cleveland Hamfest Cancelled

The Hamfest Association of Cleveland is sad to announce that the September 27th 2020 Cleveland Hamfest has been canceled. We have been continuing to plan as if we would be able to hold the event like we have every year since 1974, but uncertainty from the fairgrounds as to our ability to use the facilities has forced us to make this difficult decision.

We thank everyone for their continued support and look forward to seeing you all in 2021. 73 de W8HAC

=====

2020 Tokyo Ham Fair Cancelled

The world's largest hamfest has been cancelled for this year due to the Coronavirus pandemic. The Japan Amateur Radio League (JARL) reluctantly announced the cancellation of the 2020 Tokyo Ham Fair, which last year drew more than 40,000 participants.

"JARL cannot guarantee the safety and perfect prevention from COVID-19 infection, even if we take all possible preventive measures," according to an announcement on the hamfest website.

The show had already been rescheduled from its usual late August date until October 31-November 1 to avoid conflict with the now-cancelled Tokyo Olympic Games.

JARL also noted that the date and location of the 2021 Ham Fair are still uncertain.

=====

Editor's Note: Most Hamfests have been cancelled due to the Social Gathering restrictions.



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.**

Don't forget - 4th Thursday is NET NIGHT at the Virtual Club Site !!

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.

August	
6	K8YLK
13	WB8LCD
20	K8CAV
27	KD8WCK

September	
3	N8AMY
10	WB8LCD
17	KE8BWA
24	KA8TOA

October	
1	N8QE
8	WB8LCD
15	K8IV
22	N8AMY
29	KD8WCK

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

If you have not been a Net Control Operator for PCARS and would like to give it a try, please contact me at: grgory999@roadrunner.com everyone who is a club member is welcome to have a turn - and have fun being the PCARS Thursday Night Net Control !

Hi everyone Please be safe and enjoy playing Radio this month. I would like to thank everyone for running the nets and checking in. Hope everybody is enjoying the summer as best they can. The following are some stats for the 2nd quarter of nets. Thanks for your support and your help to make our nets worthwhile. I know the club officers appreciate it and so do I. As always, if there is an issue please let me know a few days ahead and I will take care of it. For now 73 and have fun.

Net Check-In Numbers	
April (5 nets)	204
May (4 nets)	141
June (4 nets)	121
Total	466
Jan/Feb/Mar Total	264



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



Portage County Amateur Radio Service



K8BF

2018 Hamvention® Club of the Year

Contest Calendar

August Contest Calendar	
Contest Name	Times
10-10 Int. Summer Contest, SSB	0001Z, Aug 1 to 2359Z, Aug 2
North American QSO Party, CW	1800Z, Aug 1 to 0600Z, Aug 2
Maryland-DC QSO Party	1400Z, Aug 8 to 0400Z, Aug 9
North American QSO Party, SSB	1800Z, Aug 15 to 0600Z, Aug 16
ARRL Rookie Roundup, RTTY	1800Z-2359Z, Aug 16
Hawaii QSO Party	0400Z, Aug 22 to 0400Z, Aug 24
Ohio QSO Party	1600Z, Aug 22 to 0400Z, Aug 23
World Wide Digi DX Contest	1200Z, Aug 29 to 1200Z, Aug 30
Kentucky State Parks on the Air	1400Z-2200Z, Aug 29
Kansas QSO Party	1400Z, Aug 29 to 0200Z, Aug 30 1400Z-2000Z, Aug 30

YES - There are MANY More Contests out there - Check the internet.

Contests that will be active at the PCARS Club Site in 2020	
<u>NOTE: All Contest Activities from Club Site</u>	
<u>Subject To Cancellation</u> <u>Check Web Site for Updates</u>	
Date	Contest
Sept 19-20	Washington State Salmon Run
Oct 3-4	California QSO Party
Oct 10-12	Pennsylvania QSO Party
Oct 17-19	New York & Illinois QSO Parties



PCARS
www.portcars.org



DX Engineering is Hiring

DX Engineering is Hiring. They are looking for various position including Technical Sales Rep and manufacturing/warehouse help.

If you would like to help others enjoy Ham Radio and be part of the DX Engineering team, visit the DX Engineering web site.

For more details see:

<https://summitracing.wd5.myworkdayjobs.com/DXEngineering-External-Career-Site>



5 Results

DXE Technical Sales Rep - Part time

DXE Distribution | R000863 |

DXE Technical Sales Rep

DXE Distribution | R000862 |

Warehouse Utility 1

Tallmadge OH 3800 Mogadore | R000664

DXE Assembler 1

Tallmadge OH 3800 Mogadore | R000663

Warehouse Utility 1

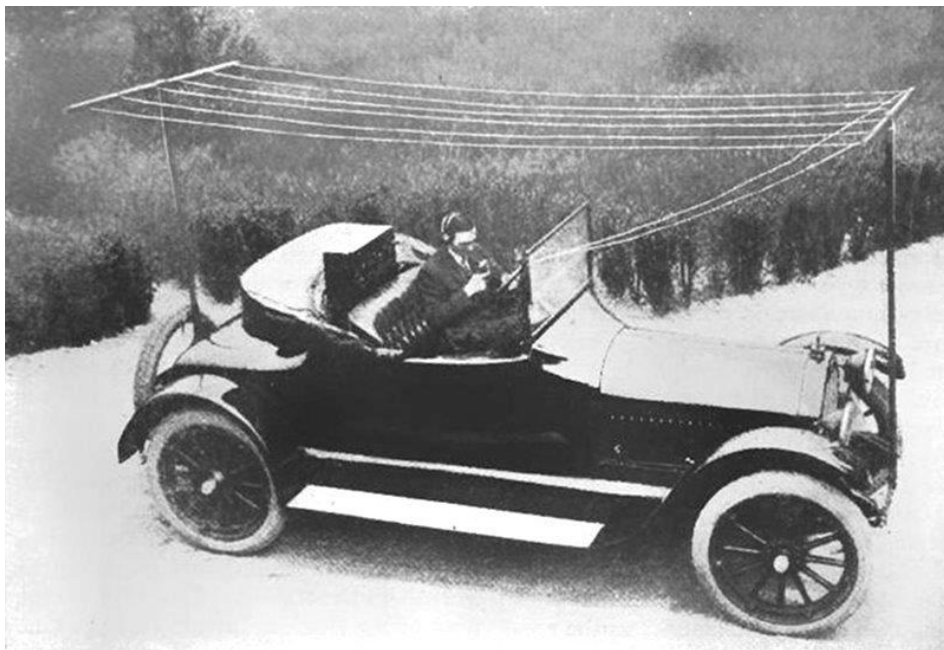
Tallmadge OH 3800 Mogadore | R000144

Ham Radio Mobile Operations - Circa 1919

Al Williams

Hack-A-Day Contributor

You used to be able to tell a die-hard ham radio operator on the road by the number and length of antennas protruding porcupine-like from their vehicle. There are still some mobile high frequency operators that have



respectable car-mounted antenna farms, but they have nothing on Alfred H. Grebe. In 1919, he fitted a medium wave transmitter in his car that operated around 2 MHz. Since it needed a very large antenna, Grebe rigged a wire antenna that looked like a clothesline between the two bumpers. Obviously, you had to stop, set up your antenna, and then operate — you couldn't talk and drive. But this may have been the world's first automotive radio setup for voice communication.

The car had a separate battery for the radio and a dynamotor to generate high voltage for the tubes.

Although many radio enthusiasts

found ways to add receivers to their cars in the 1920s, it would be 1930 before Motorola made radios especially for cars in production quantities.

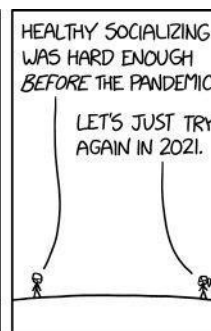
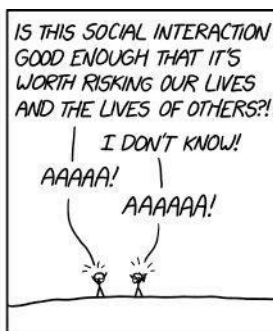
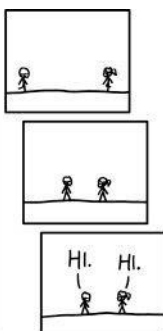
That wasn't what Grebe was most famous for, though. He worked as a ship's operator. After making a few receivers for friends, he decided to open up a business. Grebe radio, though, is hardly a household name today. But he was best known for setting up radio stations, including founding the station that would eventually become WCBS, often called the father of news radio.

We always enjoy learning about radio pioneers including Edwin Armstrong and Reginald Fessenden. This is certainly a far cry even from the old mobile telephones.

<https://hackaday.com/2020/07/16/ham-radio-mobile-operations-circa-1919/#more-421957r>.



PCARS
www.portcars.org



Charlie the Tuner's HF High-Lites

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



Greetings to all DXers:

We are still in the Dog Days of Summer until about Aug. 11th. That means that we should still be having very warm WX. Even so, those of us who have antenna repairs or need just one more wire in the air should be doing your work early in the AM to miss the hot sun later in the day.

This is also when there should still be some DX and some band openings going on. We should still be seeing some 6 meter activity for those of you who enjoy working E-Skip not to mention some meteor activity.

And even if it only means that when you get on the air, you only get to talk to your buddy in Arizona, it's still YOU getting ON THE AIR! So why not put your investment in radios to good use and turn them on. Unless you are using some boat anchors, turning your rigs on won't add to the heat. I can't speak for the guys with the big tube foot warmers.

The whole idea of why you studied and studied to take the test to get your ticket was so you could get on the air. So let's not waste any more time and turn on those rigs. Even if you have to stop reading this column to work some HAM across the pond, DO IT! I'll wait.

As always 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, N6PSE, W7GJ, K8YSE, W8GEX & 60m DX News, DL1SBF, DL7UXG & The DX News Letter, DXNews.com, DX-World.Net, F5NQL, F6AJA & Les Nouvelles DX, I1JQJ/IK1ADH & 425 DX News, M0URX, PA5Y, PY3DF, RN3RQ, RW6HS, Sixitalia Weekly, 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.

Please keep in mind that there is still a laundry list of countries that have postponed their mail service for the time being and will not accept mail from outside their borders.

August...

9G, GHANA. Matteo, IZ4YGS, will once again be active as 9G5GS from Sanzule, Sanzule, Ellembele District, Western Region (WW Loc. IJ84SX), Ghana, in the jungle among palm trees and swamps, snakes and crocodiles, a few hundred meters from the ocean, Ghana, between August 8th and September 15th. Activity will be limited to his spare time (usually on "almost every evening", between 2100-0000z) on 160-10 meters using mostly FT8 (F/H) and SSB, with a Yaesu FT-891 and 100 watts into a vertical antenna. On FT8 (Fox-Hound Mode) the suggested frequencies are: 3590, 7056, 10131, 14090, 18095, 21091, 24926 and 28091 kHz. On FT8 (Standard Mode) on the standard frequencies; PLEASE SEND REPORT FIRST, not the Loc. He will also be active through the QO-100 geostationary satellite, USB mode. He will update daily to ClubLog. QSL via LoTW, IZ4YGS direct or eQSL.

AT0, INDIA (Special Event). Dinesh "Pandir", VU2DCT, special callsign AT0II (II=Improve Immunity) from **Lucknow, India**, to spread the awareness of the Covid-19 pandemic situation. Activity will be through August 18th. QSL via his home callsign.

AT2, INDIA (Special Event). Utsav, VU3ZIG, will use the special callsign AT2SON (SON=Save Our Nation) from **Habra, India**, which was issued by WPC Ministry of Telecommunications Government of India, to show the gratitude and tribute for the COVID-19

warriors during this pandemic situation. Activity will be through August 18th. QSL via his home callsign.

EA8, CANARY ISLANDS (Satellite Op/Rare Grid). Philippe, EA4NF, operating on the satellites from **Lanzarote Island**, Canary Islands (AF-004, WW Loc. IL38 & IL39), as EA8/EA4NF between Aug 10-17th. A special focus will be from the very rare IL39 Grid. Portable activation with FT818 and FT817ND operating in full Duplex with an Alaskan Arrow Antenna. Activity will be on the FM and Linear Satellites. QSL via LoTW as EA8/EA4NF. Keep an eye on Philippe's Twitter feed for further updates and passes.

ILLW 2020. The 23rd International **Lighthouse Lightship Weekend** (ILLW), which usually takes place during the third weekend of August, has been moved to August 22-23rd. As of June 18th, there are 185 registered Light- house/Lightship stations listed.

P4, ARUBA. Thomas, KM4VI, will be active as P4/KM4VI from **Aruba** (SA-036) between August 2-7th. Activity will be holiday style on various HF bands using SSB QRP only. QSL via his home callsign, direct, LoTW or eQSL.

PI75, THE NETHERLANDS (Special Event). Look for special event station PI75VERON (Vereniging voor Experimenteel Radio Onderzoek in Nederland) to be on the air between August 1st and December 31st). Activity is to celebrate the 75th anniversary of the VERON (The Netherlands Ham Radio Society). QSL via PA1AW.

RI1, ANTARCTICA. Alexander, RX3ABI, has been active as RI1ANM from the **Mirny Antarctica Base Station** (AN-016) and will be there until early 2021. Activity will be limited to spare time on various HF bands, but it seems he likes mostly 40 and 20 meters FT8 between 0200-1530z. QSL via his home callsign.

SN87, POLAND. Members of the Mysliborski Klub Lacznosci PZK (SP1PMY) active with the special callsign SN87LOT from **Mysliborz** between now and Aug 31st. Activity to commemorate 86th anniversary of the flight over the Atlantic Ocean by 2 Lithuanian pilots Steponas Darius and Stasys Girenas. They flew from New York in little airplane "Lituanica" to Kaunas July 15th, 1933. The flight ended with catastrophe in a forest near the village of Pszczelnik (6 km from Myslibórz, West Pomeranian Voivodeship). There is a monument dedicated to those two brave airmen at the place where the airplane fell. Every year at this monument there takes place celebrations with highest Polish and Lithuanian representatives. Activity will be on various HF bands. QSL via SP1PMY, direct or by the Bureau.

IOTA News...

EU-001. Claudio, HB9OAU, will once again be active as SV5/HB9OAU from **Karpathos Island**, Dodecanese, between Sept 12-25th. Activity on 80-10 m SSB, RTTY, FT8. QSL via his home callsign, direct, by the Bureau, ClubLog, eQSL and LoTW.

EU-042. Operators Joerg "Joe"/DJ1JB, Markus/DJ4EL, Thorsten/DJ5TM planning to be active as homecall/p from **Pellworm Island** (plus some other surrounding islands; in the same IOTA group) between August 27th and Sept 3rd. Activity be on 40-10 m using SSB with verticals and quad antennas. QSL via LoTW or their home callsigns. Look for more details to be forthcoming.

EU-055. Tom, LA4LN, is now active as LN1V from **Stord Island** (WW Loc. JO29QS), Norway, mainly on 6 meters using digital until mid- August. However, Tom does mention he does have antennas for 160m-70cm and can operate on all modes. The special callsign (LN1V = «Liberation Norway One Victory») is being used in celebration of the 75 years since the liberation from the 5 year long Nazi occupation in 1945 after World War 2. QSL via LA4LN.

EU-055. Operators Holger/DH3RN and Benny/DH7RG active as LA/DH3RN and LA/DH7RG from **Bomlo Island** (JO29PS), Norway, between Aug 14-24th. PLEASE NOTE that due to the current COVID-19 situation changes can happen (watch QRZ.com for updates). Activity on 80-10 meters using SSB and FT8/FT4. QSL via their home callsign, direct, by the Bureau or ClubLog.

EU-081. Operators Jean/ON5DX, Kürt/ON5DZ, Tim/ON5HC, Pat/ON7PQ and Francis/ON8AZ will be active as TM2U from **Saint Marcouf Island** between August 23-28th. Activity will be on 80-6 meters (also 60m) using CW, SSB and the Digital modes. QSL via ON8AZ. For more details, see: <https://www.eu081.be>

EU-125. Mike, DG5LAC, will be active as OZ/DG5LAC from **Romo Island** (OZFF-004 Wadden Sea) between August 22nd and September 5th. Activity will be on SSB and FT8/FT4. QSL via DG5LAC, direct, by the Bureau, ClubLog's OQRS, LoTW, or eQSL.

OK! We have some things coming up that we can work. Get on the air! Let's make sure that we keep the Amateur bands occupied. Remember, there are those out there who would dearly love to have our bands for their commercial use. Let's not give them any reason to be successful in stealing our airways.



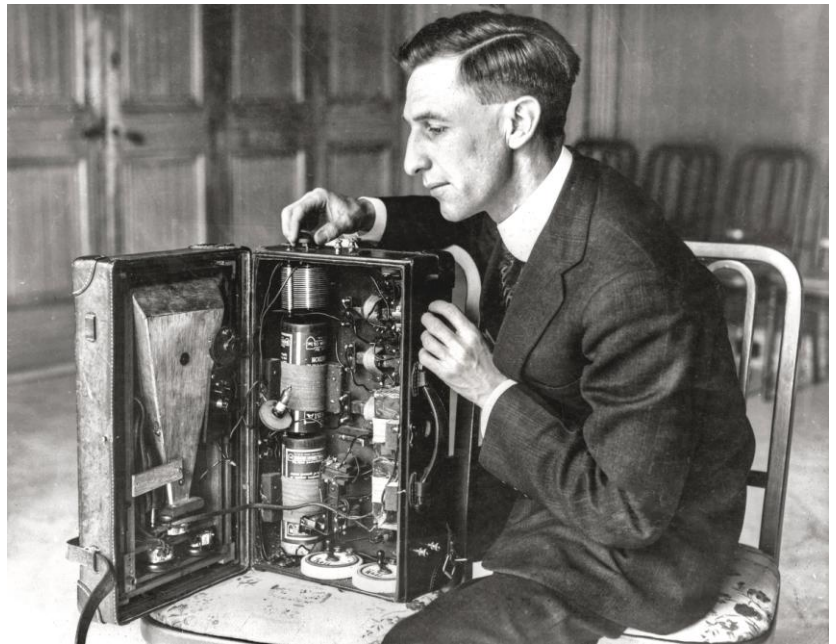
CARRIES RECEIVING SET ABOUT IN SUIT CASE

April 1922. Chicago. "The Singing Valise -- F.W. Dunmore, of the U.S. Bureau of Standards radio laboratory, with radio built in suitcase." Underwood & Underwood photo.

Government Expert Astounds Gathering of Engineers With Demonstration of Singing Valise - Explains Small Instrument Capable of Controlling Mechanism at Great Distances

CHICAGO, May 19 -- "The Singing Valise," or "Talks-as-it-walks," may be the latest thing in radiotelephone reception, displayed to the amazement of delegates attending the American Institute of Engineers meeting here last month at the Drake Hotel, by F.W. Dunmore of the radio laboratory of the U.S. Bureau of Standards.

Incidentally, it may be pointed out that the engineers at their spring meeting are paying a great deal of attention to radio ...



Mr. Dunmore has a small suit case about one-third the size of an average grip. In the body of the suit case he has batteries, condensers and other paraphernalia of a radiophone receiver. Neatly packed in the cover part is a loud speaker and a loop aerial of tiny wire. The only opening in the sides of the valise is for the mouth of the loud speaker.

What It Does.

While the engineers were gathered in the French Room of the Drake, all windows closed, Mr. Dunmore opened the grip, turned the aerial director toward the Westinghouse broadcasting station KYW, and at once the voice of the announcer of a radio news service was heard.

"That's easy," said Mr. Dunmore, and, closing the satchel, he took hold of the handle and walked about the room. The news bulletins continued to come and were heard in all parts of the room. He walked to every corner of the room and the voice continued until KYW, having completed the news bulletins, signed off.

The reception of radio in a set enclosed in a leather case and all within the confines of the steel, concrete and brick structure of the hotel, amazed even those of the engineers who thought they had seen the very latest in radio reception.

Of greater practical importance, however, was the relay recorder for remote radio control, which Mr. Dunmore displayed and which he described at length in a written report to the engineers.

This instrument, not more than 15 inches square by eight inches deep, contained the mechanism by which ordinary radio telegraph code signals can be strengthened so as to make them operate and control mechanisms at great distances.

By this instrument, also from the radio laboratories of the United States bureau of standards, airships, automobiles, or units of power, electric light, and water plants can be controlled.

A machine equipped with the proper apparatus can be operated by radio through this instrument, said Mr. Dunmore. "We have perfected the instrument to furnish the control. The matter of equipping machinery to respond to this control will be simple."

Island and Maritime (Kayak) Mobile

Sylvester, W8YIH



I have been having fun with a radio and my own personal DXpeditions. I operated from small islands on our local lakes and named the event I2-OTA (Inland Islands On The Air) hi-hi. This trip was to the Island on Mogadore Reservoir.

I was testing my proud invention home build (except vacuum variable capacitor I ordered from Russian old military stock) magnetic loop, foldable antenna and hoping to be the only one on the island, perfect social distancing.

I set up on the highest point of the island in the shadow of big pines and a lot of breeze coming from the lake, perfect.

Unfortunately I was too visible and people were arriving to investigate what this big octagon on a pole is for. So I spent half of the day talking about it vs. doing it hi-hi. Could not operate because of safety and exposure limits in an uncontrolled environment.

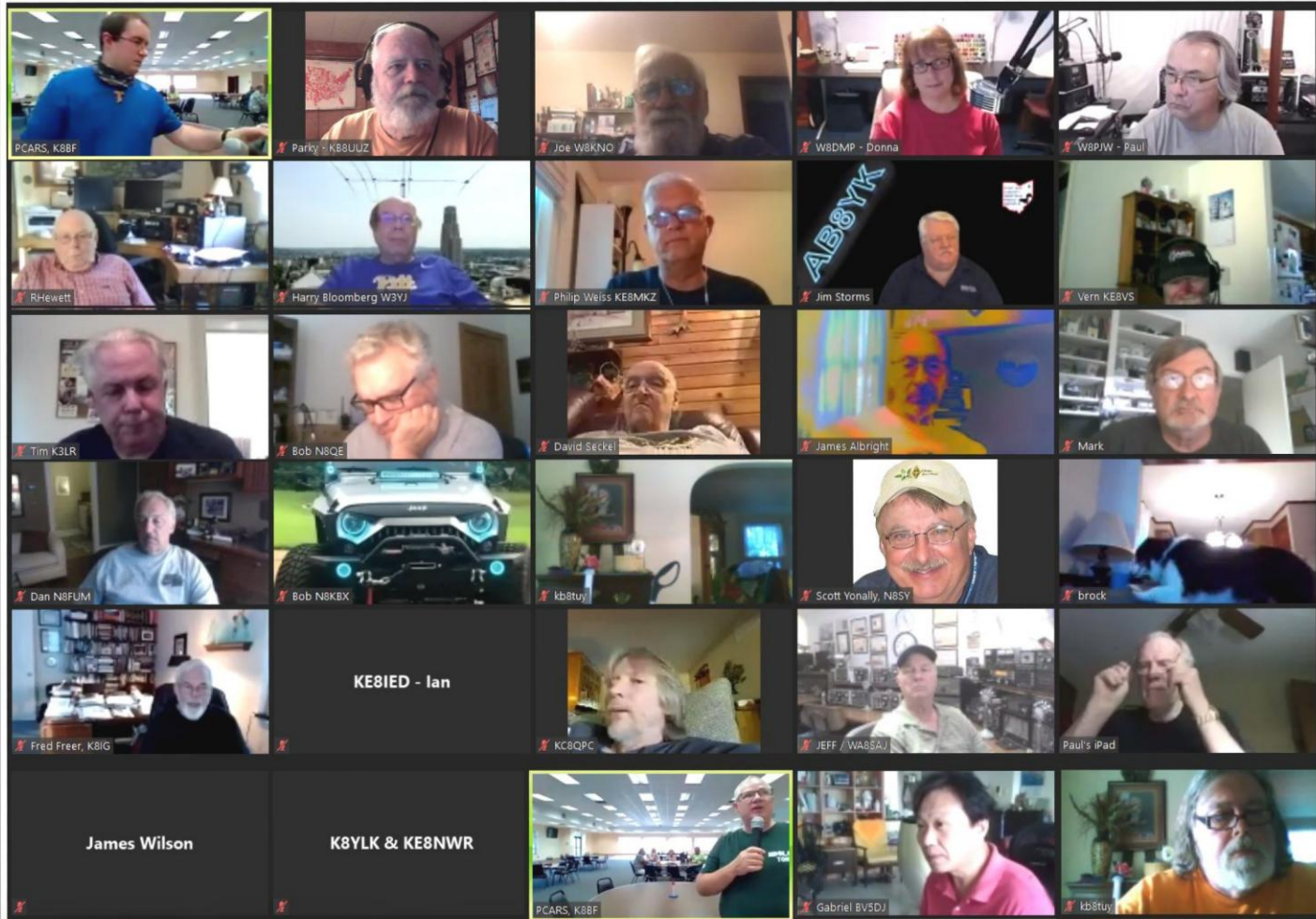
I was even visited by a 2 moms in 2 kayaks with 3 kids. They were paddling along and suddenly the leading kayak noticed my antenna and made a 90 deg turn and landed near my spot. The lady told me her grandpa was a ham and a view of my antenna brought back old memories. But her kid also spilled the beans about the secondary objective of her kayaking expedition when he run out of the bushes telling on his little brother by yelling "Mooom he pooped EVERYWHEREEEE!!!"

At the end of the day I had a lot of fun, pines smelled awesome, did not get a sunburn and antenna testing was a full success! Was very sensitive to nearby objects including tree trunks and reacted with increased SWR when tried to rest it against the tree.

But for my next day I decided to go to a different place to be sure no visitors West Branch - Goose Island...

(Editor's Note: The West Branch - Goose Island adventure will be in the September issue of The RADIOGRAM)

Photos from the July PCARS Meeting

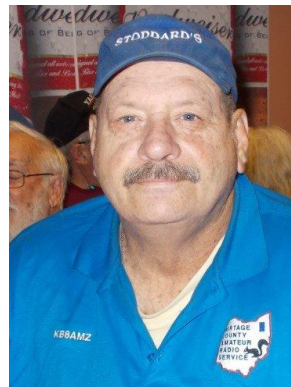


PCARS

July
13
2020

Linux & CW/QRP Special Interest Groups

Terry, KB8AMZ



Linux SIG

Last month I didn't write any articles because I wasn't feeling well. I'm thankful it wasn't the virus that everyone is most fearful about today. The previous month, May, I tried to combine the two special interest groups that I host into one article but I don't think it came off that way. I mentioned a follow-up for adding or replacing commonly used words to the QRQ application for Word Practice. It's a simple but tedious chore to copy then paste the common words list into the QRQ file folder. First it is suggested that current database is removed and stored in another folder because contains call signs that the original program was set up for practice.

Since the Linux for Hams SIG is using the Raspberry Pi System on a Chip (SoC) as a minicomputer the information that follows is directed to this system. If you have more than average experience with use of a PC and file sharing then you could probably figure out how to the same with a different OS, e.g. Windows 10 or MacOSX.

You will need to go to `/usr/share/qrq/` on your Linux/Raspian Linux system. Then copy and paste these 15 files into that file directory:

- File 1 - <http://dl.dropbox.com/u/151133/QCB%20WORD%20LIST%20FILES/wordz1.qcb>
- File 2 - <http://dl.dropbox.com/u/151133/QCB%20WORD%20LIST%20FILES/wordz2.qcb>
- File 3 - <http://dl.dropbox.com/u/151133/QCB%20WORD%20LIST%20FILES/wordz3.qcb>
- File 4 - <http://dl.dropbox.com/u/151133/QCB%20WORD%20LIST%20FILES/wordz4.qcb>
- File 5 - <http://dl.dropbox.com/u/151133/QCB%20WORD%20LIST%20FILES/wordz5.qcb>
- File 6 - <http://dl.dropbox.com/u/151133/QCB%20WORD%20LIST%20FILES/wordz6.qcb>
- File 7 - <http://dl.dropbox.com/u/151133/QCB%20WORD%20LIST%20FILES/wordz7.qcb>
- File 8 - <http://dl.dropbox.com/u/151133/QCB%20WORD%20LIST%20FILES/wordz8.qcb>
- File 9 - <http://dl.dropbox.com/u/151133/QCB%20WORD%20LIST%20FILES/wordz9.qcb>
- File 10 - <http://dl.dropbox.com/u/151133/QCB%20WORD%20LIST%20FILES/wordz10.qcb>
- File 11 - <http://dl.dropbox.com/u/151133/QCB%20WORD%20LIST%20FILES/wordz11.qcb>
- File 12 - <http://dl.dropbox.com/u/151133/QCB%20WORD%20LIST%20FILES/wordz12.qcb>
- File 13 - <http://dl.dropbox.com/u/151133/QCB%20WORD%20LIST%20FILES/wordz13.qcb>
- File 14 - <http://dl.dropbox.com/u/151133/QCB%20WORD%20LIST%20FILES/wordz14.qcb>
- File 15 - <http://dl.dropbox.com/u/151133/QCB%20WORD%20LIST%20FILES/wordz15.qcb>

I suggest that you read the QRQ web page to get an idea of the use of the hotkeys since there is no menu. Although it isn't written in the description (and I haven't tried the application recently) pressing F1 is the default HELP key in most PC programs since the early 8-bit computer days. Keys F5, F6, F7, and F10 will probably be the most used by the program user.

QRQ - yet another CW trainer (Linux, Unix, OS X, Windows) [hyperlink] <https://fkurz.net/ham/qrq.html#0.3.0>
Windows 10 users, go to this web page to download the Windows version of QRQ: <https://fkurz.net/ham/qrq/qrq-0.3.3.exe>

OSX users, go to this web page to download the OSX version of QRQ: <https://fkurz.net/ham/qrq/qrq-0.3.3-osx>

=====

QRP - CW SIG will be on Tuesday at 1900 hours until around 2100 hours for some. We will be doing Get On the Air QRP CW. You must wear a mask while in the club site, bring your own headset, and straight key. If this is your first time on air and can sit with you. Last month 3 members showed up. Prior to the COVID 19 restrictions the number people showing for Get On the Air has been 2 people. If you are interested in coming to this SIG please get in touch with me 24 hours prior. I am limiting the number of participants to 10. That's in case there is a sudden influx of interested people. We have to keep a safe distance from each for a while. Another requirement is you must wipe down the area you sat and worked at with sanitize wipes before leaving the club site.

Until this COVID 19 situation has cleared to let us resume life somewhat like we used to enjoy, please, please don't show up to the SIG unless you've contacted me 24 hours prior. I thank you for that consideration. For those that don't know, my email address is terry.kb8amz@gmail.com and my cell phone number is 330-221-0169. There will not be a Linux for Hams SIG in August 2020. Stay safe and wear your mask while in close proximity and around other people.

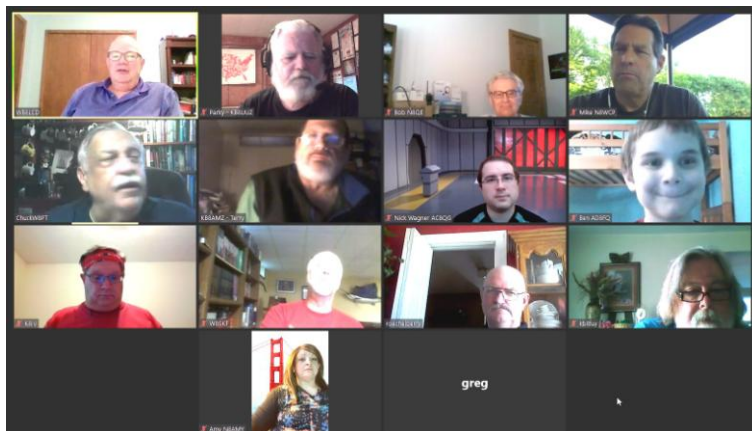
DX & Contest Special Interest Group

Chuck, W8PT



We held our first DX/Contest Special Interest Group meeting this past Tuesday on Zoom. We had a good turnout to discuss how we were going to participate in the upcoming Ohio QSO Party.

The OhQSOP committee has changed the rules slightly for this year's event by



eliminating the multi-multi category. They have ruled that those who want to participate as a club can do so from their own QTHs, using their own call signs. When our members turn in their logs in the Cabrillo format, they should indicate that their club affiliation is: **Portage County Amateur Radio Service**. Please write out the entire title. Do not use PCARS or any other form of our club name.

The individual scores will then be gathered together to give us a club score as well as showing the individual scores, as I understand it. I'm hoping

that we will have a large number of members in the event. Even if you make a few contacts, it will help.

I also briefly brought up the fact that in September, on the 19th and 20th, there are three events that we can enter, hopefully using the same format. These are the New Jersey QSO Party; the Washington State Salmon Run; and the New Hampshire QSO Party. I will be reviewing the rules for each event to see how they are going to handle the club scores. I will advise PCARS members of my findings.

For now, 73 and stay safe.

This is what the OQP published:

We're making several changes for the 2020 Ohio QSO Party:

- 1. We're adding 160 meters. Based on 160 meter activity in other QSO Parties I don't expect this to make a huge difference, but it should provide an opportunity for some "fresh meat" QSOs when things get slow late on Saturday night.*
- 2. We're dropping the "One station/one call" rule. So you can also use a club call or other call for an additional entry, to enjoy being a new station while making more QSOs possible for others. This is intended to allow more potential QSOs for everybody, not as a way to inflate scores of friends.*

We hope you all will join us for the 2020 OhQP on Saturday, August 22, from noon to midnight EDT (1600z - 0400z) !

73 - Jim K8MR - OhQP Chairman

Flattening the CW Learning Curve

Paul, KE8EGF



What motivated me to learn Morse code (CW)? When starting, I was a recently licensed operator, and CW seemed a great way to reinforce the radio and operating principles I learned in the licensing process. Also, I was looking at the investment dollars needed for a good rig and antenna, and CW offered the possibility of distant contacts (DX) using the most basic radio equipment possible (QRP). The CW/QRP group gave me access to a way to learn, use and improve my CW operating skills. Access to both the club radio-equipment and an expert CW operator was a bonus.

My goal was to learn the basic alphabet and punctuations (a few characters at a time), then increase the speed of the characters and character spacing until I reached a 20 word per minute (wpm) rate. Everyone recommended at least 15 minutes practice periods at least once or twice a day. I am not the perfect student, so my practice sessions went in spurts for one to two weeks doing the recommended per day practicing, but then lull periods of the same length where I did not practice at all. I call this the “flattening the curve” method of CW learning. It certainly takes longer, but with perseverance all things are possible, and I am slowly reaching my goal of 20 wpm.

Recognizing CW characters at the slower speeds (10 wpm or less) is relatively easy. It is like learning to read as you sound out one letter at a time to complete a word. At the higher rates however you need to instantly recognize CW letters or even complete words to keep up with the rapid pace. I am not there yet, I still ‘fumble’ over some letters/punctuations. The next few CW characters go by before I can recover, and I then need to look for a word break to get back on track.

Learning to transmit clean CW code has also been slow for me. The timing of dit lengths vs dash lengths, character spacing and word spacing does not come naturally. I am jealous of some of the CW operators I hear on the air. Their tempo almost sounds musical. I have been using a straight key and only recently started using an iambic paddle with a keyer. This will help. I initially used an on-line tool (part of LCWO) that decoded CW entered via the mouse button. I converted a USB mouse so my straight-key was in-parallel with the mouse button switch and used this to enter CW code so the program would decode. It helped my learning process, but I had difficulty keeping a consistent dit-dash ratio. My CW transmissions were somewhat forced and choppy. I now am listening to my CW transmission while practicing. I believe this will help improve my timing. I am still transmitting at a relatively slow rate, but contacts have been patient. I expect this will improve with more practice and on-air experience.

Learning the CW code, decoding and transmitting has not been the only hurdle. As relatively new operator, I found a whole new vernacular. CW operators extensively use abbreviations, Q-signals and pro-signs. It is nice to have an Elmer handy to ask questions (e.g. what’s 5NN mean, how do you ask for call-sign again). Thanks Terry. However, when on the air alone, you need to understand this shorthand and respond appropriately. Again, I expect this will improve with practice and experience. I have recently started using the CW academy website. They offer a myriad of training tools and exercise for the new to advanced operator. For me, I like their Morse Code Trainer which emphasizes ‘instant’ character recognition and their training exercises with ‘real-world’ CW interactions. The CW academy also offers on-air coaching. I have not used it yet, but it is on my short list to try.

CW Academy: <https://cwops.org>, Learn CW Online: <https://lcwo.net/main>

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.

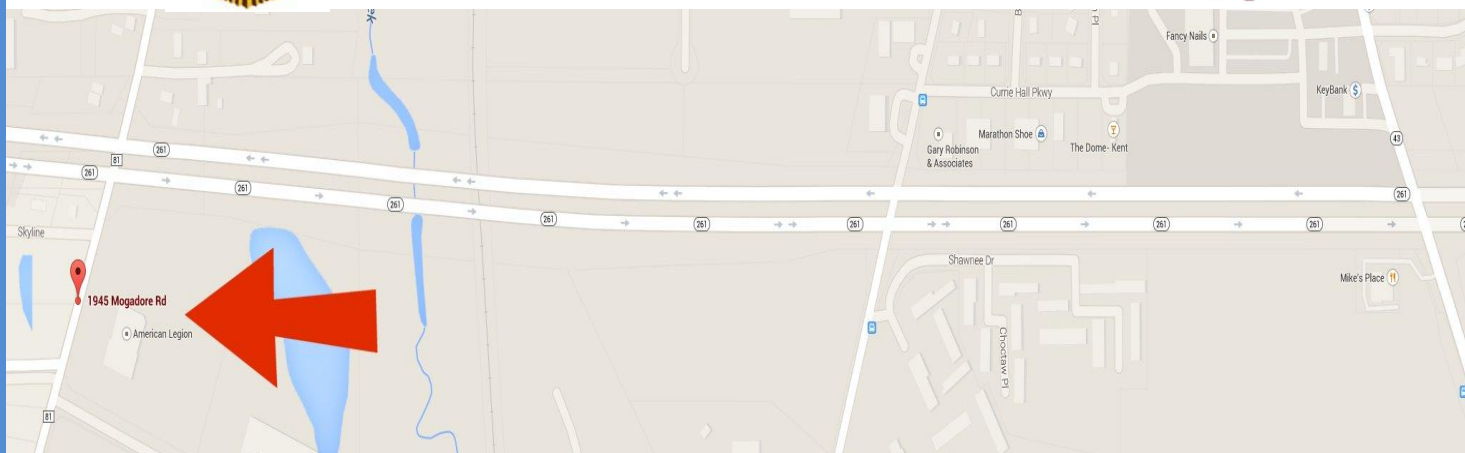


PCARS Meetings

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



*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.



11th Annual Mobile Cruise-In 2020

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

Thursday, August 13, 2020, 6:00 - 8:00 pm

The Portage County Amateur Radio Service (PCARS) will be sponsoring the **11th annual** Amateur Radio Mobile Cruise-In Night at the



769 East Main Street in Ravenna.

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

Prizes awarded for:

1st Most Mobile QSOs

6-730Pm (not with others at the A&W and no repeaters)

2nd Furthest Distance Worked

Enjoy an evening of ham radio fellowship and fun with PCARS.

There will also be an At Home Activity

- Most PCARS members worked ALL DAY on the 13th 0001-1150 local time.

Awards for HF/VHF/UHF and VHF/UHF

- Repeater Okay - Multiple Modes: FM/SSB/FT8/PSK on each band. Send your log to Nick AC8QG - Prizes awarded at Sept PCARS meeting. Watch web site for details.



More information contact:
Nick, AC8QG at nm3w@yahoo.com





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



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

PCARS BB-QSO Party

club Picnic

Mark your calendars for **Saturday, August 22nd 2020**, the date for this year's **PCARS BB-QSO Party**.

We are inviting all PCARS members to come on out for some special **Big Fun**.



It's a **BB-QSO Party PCARS Picnic**.
Tom, WB8LCD and Mike, KB8TUY
will be the chefs for the
PCARS BB-QSO Party!



Burgers & Brats & condiments will be served at the club site around 2:00 pm.

Bring your own snacks, side dishes & drinks (not to share).

A chance to say **HELLO** in person. Plenty of Social Distancing.

Wear your mask.

Condiments will be handed out by 1 person with gloves and buns will be passed out by another person wearing gloves. No foods will be shared and we don't want everyone dipping their hands into bags of buns or bottles of ketchup. We're keeping it SAFE for all.

The 2020 Ohio QSO Party: Members - run your own call sign *from Home*. When you send in your log enter "Portage County Amateur Radio Service" as your club name. It's a 12-hour contest - so have fun on the air:

August 22nd - 1200 noon to 12 midnight Eastern Time

The Portage County Amateur Radio Service, Inc. (PCARS) announces the 13th annual

Ohio State Parks On The Air



13th annual Ohio State Parks On The Air contest

Saturday, September 12, 2020, from 1400 UTC to 2200 UTC
(10 am to 6 pm Eastern Time)

There are **75** Ohio State Parks
Make a day of it and join us in the **FUN!**

Visit a beautiful Ohio State Park
and have some
Amateur Radio Fun at the same time!



Rules? Entry Forms? Logs? Ohio State Park Information?

Check out **all** the details at: www.OSPOTA.org

Also, visit the OSPOTA IO Group at: <https://groups.io/g/OSPOTA>
While you're at it, check out the PCARS web site at: www.portcars.org

A Test for 'Older Kids'

A TEST FOR 'OLDER KIDS'. I was picky who I sent this to. It had to be those who might actually remember. So have some fun my sharp-witted friends This is a test for us 'older kids'! The answers are printed below, (after the questions) **But don't cheat! Answer them first.....**

1. After the Lone Ranger saved the day and rode off into the sunset, the grateful citizens would ask, Who was that masked man? Invariably, someone would answer, I don't know, but he left this behind. What did he leave behind?_____.
2. When the Beatles first came to the U.S. In early 1964, we all watched them on...The _____ Show.
3. 'Get your kicks, _____.'
4. 'The story you are about to see is true. The names have been changed to_____.'
5. 'In the jungle, the mighty jungle, _____.'
6. After the Twist, The Mashed Potato, and the Watusi, we 'danced' under a stick that was lowered as low as we could go in a dance called the '_____'
7. Nestle's makes the very best '_____.'
8. Satchmo was America 's 'Ambassador of Goodwill.' Our parents shared this great jazz trumpet player with us. His name was _____.
9. What takes a licking and keeps on ticking? _____.
10. Red Skeleton's hobo character was named _____ and Red always ended his television show by saying, 'Good Night, and'_____...'
11. Some Americans who protested the Vietnam War did so by burning their_____.
12. The cute little car with the engine in the back and the trunk in the front was called the VW. What other names did it go by? _____ &_____.
13. In 1971, singer Don MacLean sang a song about, 'the day the music died.' This was a tribute to _____.
14. We can remember the first satellite placed into orbit. The Russians did it. It was called _____.
15. One of the big fads of the late 50's and 60's was a large plastic ring that we twirled around our waist. It was called the _____.
16. Remember LS/MFT _____ / _____ ?
17. Hey Kids! What time is it? It's _____ !
18. Who knows what secrets lie in the hearts of men? The _____ Knows!
19. There was a song that came out in the 60's that was "a grave yard smash". It's name was the _____ !
20. Alka Seltzer used a "boy with a tablet on his head" as it's Logo/Representative. What was the boy's name? _____



ANSWERS:

1. The Lone Ranger left behind a silver bullet.
2. The Ed Sullivan Show
3. On Route 66
4. to protect the innocent.
5. The Lion Sleeps Tonight
6. The limbo
7. Chocolate
8. Louis Armstrong
9. The Timex watch
10. Freddy, The Freeloader and... 'Good Night and God Bless.'
11. Draft cards (Bras were also burned. Not flags, as some have guessed)
12. Beetle or Bug
13. Buddy Holly
14. Sputnik
15. Hoola-hoop
16. Lucky Strike/Mean Fine Tobacco
17. Howdy Doody Time
18. Shadow
19. Monster Mash
20. Speedy

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 that we do get. 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 report in to keep this newsletter great for 2020 and beyond. You will see some humor based cartoons and articles about the COVID-19 - Yes, I agree this pandemic is VERY serious to all - but in tough times, you just have to have a bit of humor to get you through - I hope you agree. Hang in there, please.

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

WB8LCD, AC8QG, KB8UUZ, KD8IDJ, KE8EGF, N8AMY, KB6NU, N8SY, WA8EFK, W8WTD, W8KNO, G4LFM, N8WCP, KD8CGH, KD8VT, W8NET, K8IV, WA8US, N8QZ, N8GIE, KD8MQ, K8CAV, N1FMV, WA8TSI, KA8TOA, Al Williams, W8PT, W8YIH, KB8AMZ, NO8D, NF8R, CQ Magazine, Radio Society of Great Britain, DX Engineering, Newsline, Hack-A-Day, Dilbert, Shorpy.com, The ARRL, and the world wide web.

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



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: **K8SRR**

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



~ 2020 Officers ~		2020 PCARS Appointments & Committees	
President - Tom Sly - WB8LCD Vice President - Nick Wagner - AC8QG Treasurer - Paul Hyland - KE8EGF 3 Year Trustee - John Myers - KD8MQ 2 Year Trustee - Terry Morris - KB8AMZ 1 Year Trustee - Ed Polack - K8IV Past President - Jim Wilson - AC8NT	ARRL Awards - DXCC	W8KNO	Joe Wehner
	Club Site Manager/Liaison	K8CAV	Rick Kruis
	Contest Coordinator	W8PT	Chuck Patellis
	EchoLink & Web Guru	K8SRR	Steve Randlett
	Field Day Chairman, 2020	WA8AR	Tony Romito
	FYAO Chairman	W8PT	Chuck Patellis
	Historian	KB8SZI	Peggy Parkinson
	K8BF Callsign Trustee	N8AMY	Amy Leggiero
	K8BF QSL Manager	N8AMY	Amy Leggiero
	Membership Chairman	AC8NT	Jim Wilson
	Net Control Manager	KA8TOA	Greg Ash
	Net Night - Club Manager	WB8LCD	Tom Sly
	Newsletter Editor	KB8UUZ	Tom Parkinson
2nd Monday of each month. 7pm Thursday night Club Net at 8 pm on 146.895	OSPOTA Chairman	KB8UUZ	Tom Parkinson
	Public Information Officer		
	Secretary	N8WCP	Mike Szabo
	Social Media	N8AMY	Amy Leggiero
	Tech, Gen & Extra Class Manager	AC8NT	Jim Wilson
	Volunteer Examiner Liaison	KB8UUZ	Tom Parkinson
	Webmasters	KD8MQ	John Myers
		K8SRR	Steve Randlett

PCARS
Active
Volunteer
Examiner
Team
Members

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



THE RADIOGRAM

PCARS Incorporated
Nov. 1, 2005

First Meeting
Nov. 14, 2005



ARRL Affiliation
April 20, 2006



Special Service Club
March 22, 2010

The **RADIOGRAM** is the official newsletter of the **Portage County Amateur Radio Service, Inc. (PCARS)** - **Hamvention® 2018 Club Of The Year** - copyright ©2020. The **RADIOGRAM** is an **Award Winning** newsletter: **ARRL Ohio Section Newsletter - Third Place 2015 - Second Place 2014, 2016, 2020 - First Place 2012, 2013, 2017, 2018, 2019. ARRL Great Lakes Division Newsletter - Second Place 2013 - First Place in the 2017 & 2020.** Articles are the opinion of the authors and not necessarily those of PCARS. Or, better yet, let me express it this way: "These are my opinions and only my opinions, unless you share them as well, which would make them our opinions, but I am not of the opinion that I can express your opinion as my opinion without your prior expression of said opinion, and then my re-utterance of that opinion would, in my opinion, be foolish unless I were expressing agreement to your opinion, and then it wouldn't be my opinion but your opinion to which I only agree." **GO AHEAD - STEAL THIS NEWSLETTER!** You have our permission to post, e-mail, copy, print, or reproduce this newsletter as many times as you like, but please do not modify what you use. If you use material in this newsletter, all we ask is that you give credit to PCARS along with the author of the article. Caution - some of the articles in this newsletter maybe covered by copyright - please do not copy and use the ones that have by-line information unless you obtain permission from the original author. If you're not sure, drop an e-mail to KB8UUZ@gmail.com. The **RADIOGRAM** always obtains written permission for reproducing copyright material. The **RADIOGRAM** comes out the first day of each month (usually), please have inputs submitted by 8 pm ET on the last Friday of each month. ARES® (Amateur Radio Emergency Service®) is a program of, and both logos are registered trademarks (used with permission) of the American Radio Relay League, Inc. ARRL, the National Association for Amateur Radio™. **Why the Black Squirrel in our logo?** For those of you not familiar with it: The Black Squirrel is commonly seen around Portage County, Ohio. Seems that some of these little guys and gals got loose from Kent State University back in 1961. They have migrated and thrived throughout our county. Kent State University even has an annual Black Squirrel Festival. **So when you spot a black squirrel - think PCARS!**

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



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



NLC

