



The **RADIOGRAM**

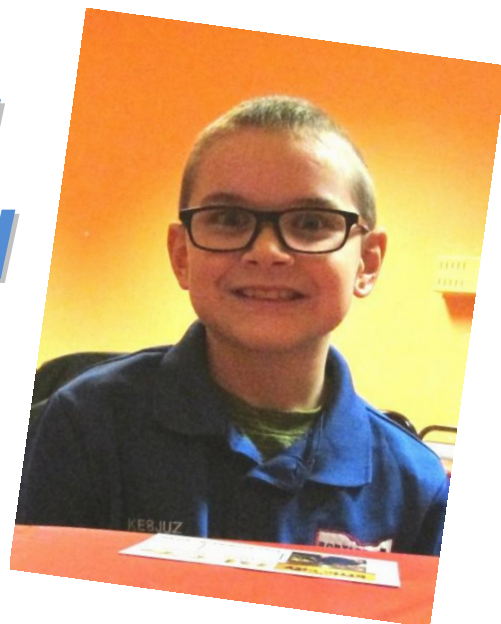
When All Else Fails ~ Amateur Radio Works

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

PCARS - the 2018 Hamvention® Club of The Year

January 2020 - Volume 15 Number 1

President's Award for 2019 presented to Ben - KE8JUZ



Fifteen Years and Still Growing



PCARS K8BF

The Club that puts the FUN in Ham Radio!



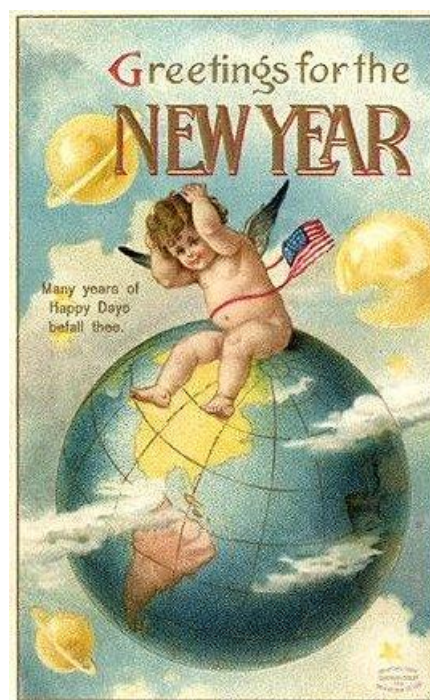


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George Boggs - KB8SK - SK

George Boggs, KB8SK, PCARS Member #333, passed away on December 6th.

If you were at the regular meetings, that's where you probably met George. Always a nice smile and great to talk with. His daughter would drive him to the PCARS meetings where enjoyed the friendship of all that were there.



We'll all miss George and his quick smile.

The following was in the Record Courier:

MOGADORE - George J. Boggs, 91, passed away December 6, 2019. He was born in Cuyahoga Falls and was a 1942 graduate of Cuyahoga Falls High School. George served his country in the Army Air Corp in White Sands, New Mexico during WWII. He then became an Iron worker for Botzum Brothers before starting his own contracting company. During his life George accomplished many things; becoming a pilot, tv repairman, ham radio operator and served as Mayor of Munroe Falls during the mid-1960s. He was devoted husband, father and grandfather.

Preceded in death by his loving wife; Geneva; he is survived by his two daughters, Dona Sears and Georgia Willis; his son-in-law, William Sears of Mogadore, Ohio; three grandchildren, Jenifer Hill, Jason Askins and Justin Willis. He had four great-grandchildren, Aron Blake, Serena Askins, Savannah and Justin Willis; great-great-grandson, Logan Blake and many nieces and nephews.



A funeral service was held Tuesday, Dec. 10 at 12:30 PM at the Clifford-Shoemaker Funeral Home, 1930 Front Street, Cuyahoga Falls, Ohio. Interment at the Ohio Western Reserve National Cemetery.

From the President

Tom, WB8LCD

PCARS President



I am thrilled to have been elected President of PCARS! I do have a lot of history with the club, but I'm not looking to use that as my reason for being here today. PCARS has been a great club, but it's not the club it used to be. A lot of great members have come and gone. Some are still here, some have moved on, and some have been called from this world altogether. But, PCARS is a fantastic group of people today, and I'm sure we will continue to attract an outstanding group of amateur radio operators into our ranks as we move forward.

In my prior two terms as president, I know I wasn't a perfect president. And I know I won't be a perfect president this time either. But, I promise that I will be the best president I am capable of, I will do my best to make PCARS the most outstanding amateur radio club anywhere, and I will do my best to engage all of our members and push them to get as much enjoyment out of our common hobby as possible!

At our first Officer's Meeting, January 6th, 2020, we will be working on the club calendar for the coming year. Jim, AC8NT and Nick, AC8QG have made sure that we have some club meetings and activities already planned so we're not just starting from a blank page here. Chuck, W8PT already has a year's worth of contesting activities planned for us. Our schedule already includes lots of other operating events such as FYAO (coming up very quickly), Field Day, OSPOTA, the OH BBQSO Party to name just a couple. We'll be working on getting several Club Build projects lined up and maybe even a field trip or two.

We also have a Special Interest Group meeting every Tuesday evening at the club site. I've said this before, and I'll say it again (and probably a few more times after this one) "Being an Amateur Radio Operator is a Process, not an Event". We are trying to make that process easy to get involved with.

Getting the license does not necessarily make you a Ham. Doing the activities of Amateur Radio are what make you a real Ham! Being a PCARS member, you have a real advantage in becoming a Ham and improving yourself as a Ham because we are doing those activities on a weekly/monthly basis and you are invited/expected to participate with us. **We are K8BF – Kilo 8 Big Fun!** I want you all to experience the Big Fun that Amateur Radio is. PCARS is here so you don't have to try to figure it all out on your own.

I'm looking forward to seeing you at a PCARS meeting or event because it just won't be the same without you!



From the Vice President

Nick, AC8QG

PCARS Vice President



It's a great time to be a member of PCARS! I am extremely grateful for all the friends I have met and the fun times I have shared over the past year! I'm looking forward to more and even better adventures with all of you in the year to come! Yes, I did say adventures. Of course, with three ham kids in the house, everything amateur radio has become an adventure. They've really pushed me to keep learning and participating. I feel like there's treasure everywhere; you just have to look around.

Please remember, if your dues are not paid by December 31, you lose your membership! If you haven't paid and it is still 2019, hurry up! If it's now 2020, don't despair! You can rejoin PCARS today! You have to pay the \$5 initiation fee, and you will be issued a new membership number, but that's all it takes.

PCARS needs your help! We always need your help! The simplest thing you can do for the club is to participate. Just come out to some meetings, join us for a few events or build days, show up to some of the SIGs, and check into the nets. I look forward to spending time with all of you in-person and over-the-air throughout 2020! Upcoming Monthly Meetings

January: Monthly Meeting — Skype with Radio Society of Great Britain from Bletchley Park

February: McMath Hulbert Observatory — Amateur Radio Astronomy

March: Skype with HamSCI Founder Dr. Nathaniel A. Frissell, Hamvention's 2019 "Amateur of the Year"

As always, 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! Thank you to all the people that helped fill this list!

Happy Birthday PCARS Members

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

KD8SOP Eddie

NR8W Russ

N8PXW Jim

K8FS Michael

KB8ZWT Jeff

N8GIE John

KE8BFA Janice

N8NB Dave

NX8G Rex

KB8SZI Peggy

KE8KBJ Mara



Happy Birthday

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



PCARS
www.portcars.org



Schedule of Events



On the calendar for upcoming meetings and activities are:



- January 6th - Board Meeting at the club site - starts at 7 pm
- January 13th - PCARS Meeting at the Kent American Legion - 7 pm
Skype with the Radio Society of Great Britain from Bletchley Park
- January 21st - Squirrel Appreciation Day
- February 3rd - Board Meeting at the club site - starts at 7 pm
- February 8th - FYAO at Fred Fuller Park in Kent
- February 10th - PCARS Meeting at the Kent American Legion - 7 pm
McMath Hulbert Observatory - Amateur Radio Astronomy
- March 2nd - Board Meeting at the club site - starts at 7 pm
- March 9th - PCARS Meeting at the Kent American Legion - 7 pm
Skype with HamSCI Founder Dr. Nathaniel A. Frissell, Hamvention®
2019 "Amateur of the Year"

Special Interest Groups (SIGs) - Every Month at
the Club Site in Ravenna - 7:00 pm

- | | | |
|----------------|---|---|
| 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

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 in person 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
See Paul for all of the details.

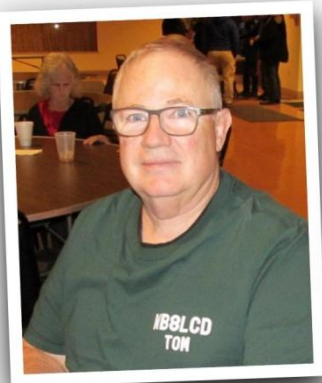
Portage County Amateur Radio Service



Congratulations to the PCARS 2020 Officers

The annual election of officers for PCARS was held at the November meeting. All of the candidates ran unopposed. Tom, WB8LCD was elected President. Nick, AC8QG was re-elected as Vice President and Paul, KE8EGF was re-elected as Treasurer. Jim AC8NT is now the Immediate Past President. John, KD8MQ was elected 3-Year Trustee, Terry, KB8AMZ goes to 2 -Year Trustee and Ed, K8IV goes to 1-year Trustee. These officers are also the Board of Directors for PCARS. **CONGRATULATIONS**

PCARS 2020 Elected Officers and Board Members



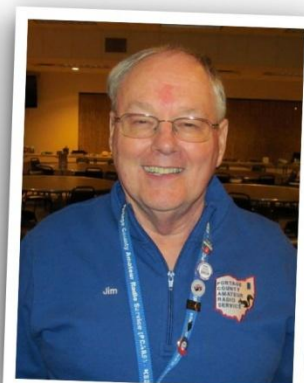
**President
Tom, WB8LCD**



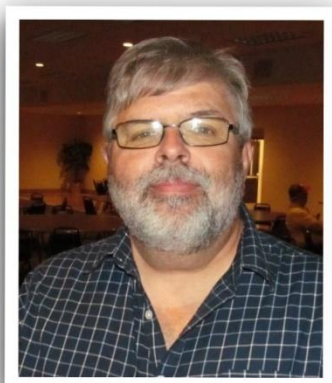
**Vice President
Nick, AC8QG**



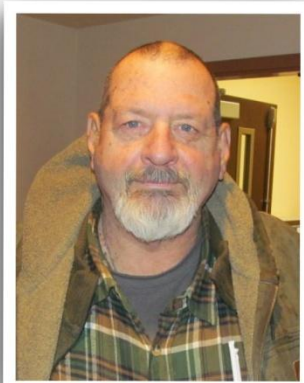
**Treasurer
Paul, KE8EGF**



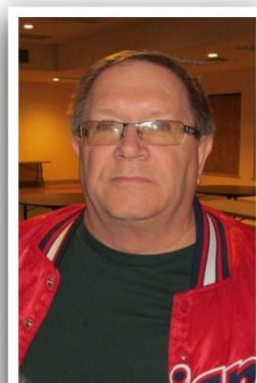
**Past President
Jim, AC8NT**



**3-Year Trustee
John, KD8MQ**



**2-Year Trustee
Terry, KB8AMZ**



**1-Year Trustee
Ed, K8IV**

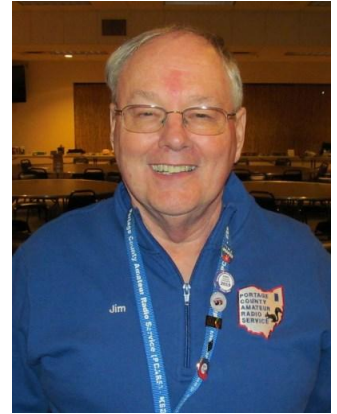


PCARS K8BF
The Club that puts the FUN in Ham Radio!



Past President's Notes

Jim, AC8NT



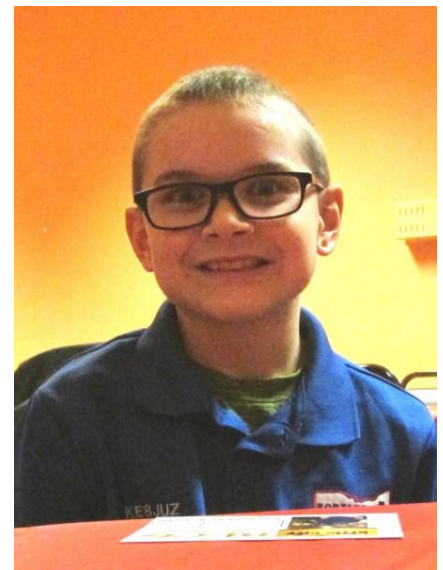
2019 wrapped up at our December Christmas dinner. We all had a great time.



My biggest highlight was presenting Ben, KE8JUZ with the **President's Award**. Ben may be the youngest member of the club to receive this annual award, but he represents all that our club is trying to accomplish. He has taken part in contests, helped with events including Maker Faires, and I believe met most of our club members at our monthly meetings. **Congrats to Ben.**

It has been a great experience serving as President of PCARS. We have had a great time having some seriously "Big Fun".

Tom, WB8LCD will be again taking on the position of President. Tom is our biggest supporter and I am sure he will continue to help our club grow. I am asking for everyone in the club to help him support this work. No one can manage this club without a lot of help.



We have a lot of fun stuff in the works for 2020, so let's all help with the fun.

Past recipients of the PCARS President's Awards:

- 2006 - KC8RJR Errol Jordan
- 2007 - KD8EPA Dan Porcase
- 2008 - N8EQJ (K8IV) Ed Polack and WB9LBI Bill Fraedrich
- 2009 - KB8TUY Mike Ryan, KD8LDY (NR8W) Russ Williams and KD8FLZ Mike DiCarro
- 2010 - KD8VT James Andrews and K8SRR Steve Randlett
- 2011 - K8CAV Rick Kruise
- 2012 - K8FEY Bob Hewett and N8QE Bob Hajdak
- 2013 - KB8UUZ Tom "Parky" Parkinson
- 2014 - KB8AMZ Terry Morris, AC8NT Jim Wilson and KD8WZS Zeb Smith
- 2015 - AC8QG Nick Wagner and KB3GXB Jennifer Andrews
- 2016 - KB8JFF Dick Ward and K8MSH Mark Haverstock
- 2017 - KD8ICP Tim Gehri, N8BI Jack Comer and WA8GCF Dave DeSimio
- 2018 - WB8LCD Tom Sly
- 2019 - KE8JUZ Ben Wagner



PCARS VE Test Sessions

Tom, KB8UUZ
PCARS VE Team Liaison



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

Feb 1st, Mar 25th at 7 pm, Apr 4th, Jun 6th, Aug 1st, Oct 3rd, Dec 5th
June 27th at the Field Day site - 4 pm

What to Bring to the Testing Session

- \$15 is 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

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

Hamfest Calendar

01/26/2020 - Tusco Amateur Radio Club's 30th Annual Hamfest, Electronics and Computer Show

Location: 965 N. Wooster Ave., Strasburg, OH - Sponsor: Tusco Amateur Radio Club - Contact: Janice Green, KD8YDK - Phone 330-340-4424, e-mail: k8wfn@tusco.net - Website: <http://www.tuscoarc.org>

02/16/2020 - Mansfield Mid-Winter Hamfest - Location: Mansfield , OH - Sponsor: Intercity Amateur Radio Club - Website: <http://WWW.IARC.CLUB>

03/01/2020 - WinterHamFest - Location: Elyria, OH - Sponsor: Northern Ohio Amateur Radio Society Website: <http://noars.net>

03/14 &15/2020 - Toledo Hamfest, **ARRL Great Lakes Division Convention** - Location: Owens Community College - 30335 Oregon Road - Perrysburg, OH 43551 - Website: <http://www.tmrahamradio.org> - Contact: Rob Hall, KV8P - 8751 Oak Valley Road Holland, OH 43528 - Phone: 419-345-5759 - Email: kv8p@kv8p.com

08/08/2020 - DX Engineering Hamfest, **ARRL Ohio Section Convention** - Location: **DX** Engineering/Summit Racing - 1200 Southeast Ave. - Tallmadge, OH - More details to follow!!

Contest Calendar

January Contest Calendar	
Contest Name	Times
ARRL RTTY Roundup	1800Z, Jan 4 to 2400Z, Jan 5
ARRL Kids Day	1800Z-2359Z, Jan 4
North American QSO Party, CW	1800Z, Jan 11 to 0559Z, Jan 12
North American QSO Party, SSB	1800Z, Jan 18 to 0559Z, Jan 19
NA Collegiate Championship, SSB	1800Z, Jan 18 to 0559Z, Jan 19
ARRL January VHF Contest	1900Z, Jan 18 to 0359Z, Jan 20
CQ 160-Meter Contest, CW	2200Z, Jan 24 to 2200Z, Jan 26
BARTG RTTY Sprint	1200Z, Jan 25 to 1200Z, Jan 26

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

Contests that will be active at the PCARS Club Site in 2020	
Date	Contest
Jan 25-26	BARTG RTTY Sprint (This is our RTTY Training run)
Feb 29 - Mar 1	North American QSO Party-RTTY (Reason for the training)
Mar 14-16	Idaho and Wisconsin QSO Parties
Apr 25-26	Florida QSO Party
May 2-3	New England QSO Party
Jun 13-15	ARRL June VHF Contest
Jul 18-19	North American QSO Party-RTTY
Aug 22-23	Ohio QSO Party & BB-QSO Party
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



College Club Visit - Case Western Reserve ARC

Jim, AC8NT



Over the next few months I plan to visit a few college ham clubs and see how they are doing, what their needs are and learn their best practices. A lot of college clubs exist, but we need more. We need to be there for them if we can help. My first visit was to the Case club W8EDU.

I met with the current club president, a junior electrical engineering student, Aidan Montare, KB3UMD in their shack located on the roof of the Glennan building. To get to the shack you take the elevator to the 8th floor and then walk up steps to the roof, across the roof and into the shack. No one seems to know why this pill box was put on the roof, but some guess it was going to be used for astronomy but it is an outstanding shack location. All their antennas are at least 9 stories above ground and some are on towers above that. The shack has modern rigs and a couple of repeaters. The club was started at Case Institute of Technology in the 1940s with the original call W8URD. Its starting location was at the Case Club on Euclid Ave. In the 1960s the call was changed to W8EDU and in the 1970s it moved to its current location.

The club has about 60 members and a faculty advisor David Kazdan, Adjunct Assistant Professor in the Department of Electrical, Computer, and Systems Engineering. It does not hold formal meetings. They basically meet as necessary for operations and the shack is open every Thursday from 7PM to 9PM. Guests are welcome if you let them know in advance. Since the building is usually locked at night except for faculty and students, visitors need to be met at the lobby door to gain entrance.

The night I visited club members were meeting with members of the Case rocket team to assist with flight communications. It was nice to see the hams working with other student groups and sharing expertise. The club does take part in ham events including Sweeps, which it has one in the Great Lakes Division Student Category; takes part in Field Day which it holds at Case Farms; and is an active participant in the ARRL Collegiate Amateur Radio Initiative working with other clubs to support their efforts.

Aidan described one of the inter college projects. It was the establishment of a WSPR propagation network. They have a WSPR station on 10 meters along with several other colleges. They are looking at ways to use the data that is being collected. They have also let other colleges and universities know that the Case club is there to help them with projects and club growth. Networking is a very good way for college clubs to leverage resources and project funding.

When we discussed club growth, he said a few years ago the club went dormant and alumni helped it stay in operation for a while. It is critical that college clubs have good alumni organizations to support the continuation of the club during "dry spells". Clubs that don't have this support find continuity very difficult. Alumni are often more important to continuity than any direct university support. If the club is just starting, there must be a support group of Elmers to help it get started and support the clubs operations. Case has a great alumni support group.

I talked about PCARS and some of our events. I explained that we were using some of Britain's practical training in our Tech classes to get more new hams on the air. Aidan said thought that might be something for Case to consider. I showed them our website and we talked about their participation in OSPOTA. The timing of OSPOTA works well with their college calendar and he thought they would give it a try in 2020. I also invited them to FYAO in February.

I would like to thank David, Aidan and the entire W8EDU club for their hospitality. If you would like to learn more about W8EDU, please visit their website at <https://w8edu.wordpress.com>.

I am looking forward to visiting more college clubs after the holiday break.



FCC Amending RF Exposure Safety Rules



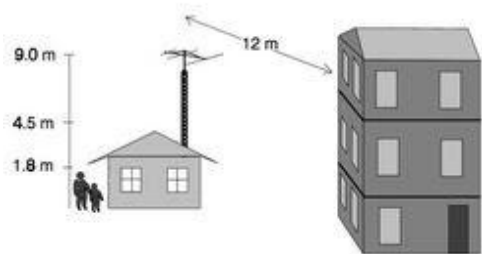
From the ARRL

The FCC is amending its Part 97 Amateur Service rules relating to RF exposure safety. In a [lengthy document](#) in ET Docket 19-226 released on December 4 and addressing a broad range of RF safety issues, the FCC said current amateur radio RF exposure safety limits will remain unchanged, but that the amateur-specific exemption from having to conduct an RF exposure evaluation will be replaced by the FCC's general exemption criteria. Radio amateurs have always had to comply with RF exposure limits, but certain stations have been exempt from having to conduct evaluations based only upon power and frequency. The Commission indicated that, by and large, if an RF source was "categorically excluded" from routine evaluation under the old rules, it will most likely still be exempt under the new rules, which are expected to take effect in the next couple of months.

"For applicants and licensees in the Amateur Radio Service, we substitute our general exemption criteria for the specific exemption from routine evaluation based on power alone in Section 97.13(c)(1) and specify the use of occupational/controlled limits for amateurs where appropriate," the FCC said.

"The sky is not falling here," ARRL Lab Manager Ed Hare, W1RFL, commented. "The major aspects of the rules will not impose major new burdens on the Amateur Radio Service. As in all regulatory matters, though, the devil may be in the details, so the ARRL technical staff, legal staff, and the experts on the ARRL RF Safety Committee are carefully evaluating this FCC document."

Under the revised Section 97.13(c)(1), "In lieu of evaluation with the general population/uncontrolled exposure limits, amateur licensees may evaluate their operation with respect to members of his or her immediate household using the occupational/controlled exposure limits in Section 1.1310, provided appropriate training and information has been accessed by the amateur licensee and members of his/her household," the amended rule says.



An FCC OET Bulletin 65 illustration of how to determine exposure distances.

the Office of Engineering and Technology (OET) [Bulletin 65, Supplement B](#)," the revised rule concludes.

"RF exposure of other nearby persons who are not members of the amateur licensee's household must be evaluated with respect to the general population/uncontrolled exposure limits. Appropriate methodologies and guidance for evaluating Amateur Radio Service operation is described in

The FCC said it was not persuaded by ARRL's argument in its comments that the routine evaluation exemption for amateur radio stations operating below a certain power threshold should be maintained. "Amateur radio licensees operate a variety of installations of different size, power, and frequency, which can be located in close proximity to people, giving rise to various RF exposure concerns," the FCC noted.

In a meeting with FCC OET Chief Julius Knapp and senior staff in early November, ARRL asked the FCC to make available on the internet a calculator to facilitate making the correct calculations the rules require. ARRL said that would be preferable to unofficial third-party calculators, the results from which might not be accorded the same degree of deference in local disputes. Several software programs were suggested as models.

The FCC did not single out amateur radio in drafting its latest RF exposure rules. The rules affect multiple services, and exemptions for many other services were also deleted as part of a broader policy driven by a proliferation of RF devices, some resulting in situations where gain antennas are sited much closer to people than was expected in 1996 when the rules were last revised.



Swap-N-Shop

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 [03/02/20]

For Sale: ICOM IC-7000 Transceiver, good condition, includes the following: HM-151 Hand Mic, Power Cable with Anderson Power Pole connectors, Heil Icom Pro Headset Adapter, USB CAT Control Cable, RTS Programming Software with USB Cable, MD-62 mounting bracket and hardware, MB-105 separation bracket, OPC-1443 separation cable, Original factory manual, Printed 4-1/4" x 5-1/2" manual (two), Nifty Mini-manual, MARS out of band transmit mod. \$700.00.

Contact: Rick, K8CAV at k8cav.coms@gmail.com or call 330-620-8826 [02/02/20]

For Sale: Elecraft K2 s/n 5035 - KPA 100 Amplifier - KNB2 Noise Blanker - K160RX 160 meter module - KAF2 Audio filter and Real-Time Clock - KI02 RS-232 Interface and Aux I/O - K60XV and Transverter Adapter - KSB2 SSB Option - \$800

Contact: Bob, WB8OVQ at 330-802-9562 [02/02/20]

For Sale: 30' Aluminum Free-standing Tilt-Over Tower - \$200.00 - Full specs can be found at

https://docs.wixstatic.com/ugd/376c20_8bc492f5edcc4ffe8e6fcba94e3aca7a.pdf

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

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. \$5000.00
ALPHA 77SX/DX factory Peter W. Dahl transformer \$550.00 **YAESU FT-857D** radio is basically a new in box radio that was removed from the box to allow for the installation of the 2.3 KHz Collins SSB filter and the TCXO which allows for 0.5 ppm frequency accuracy. I also performed the MARS modification which allows for 1.8-30.0 MHz transmit. After the accessories were installed a MH-59A8J remote control microphone was connected to the radio to test operation and confirm the MARS modification was working as expected. The radio was programmed with the various frequencies I planned to use. Then the radio was returned to the original box. Since I had another FT-857 at the time I did not even touch the power cord. I will sell this radio along with the listed installed accessories and remote control microphone. Also included are the following; ATAS-120A auto tuning mobile antenna with a large 3 magnet MFJ mobile antenna mount, ADMS programming software & cable, Nifty Guide quick reference guide and custom printed spiral bound manual with plastic covers. About \$1500.00 invested selling for \$1100.00 cash only, No Trades. **Kenwood 4 PIN fused DC Power Cord \$15 ICOM 6 PIN fused DC Power Cord NEW \$20.00**

Contact: James - KD8VT - Call or Text to (330)-206-4909 [03/02/20]

For Sale: Yaesu FT-890 Transceiver, Yaesu YD-148 mic and Pyramid Power Supply – I think I paid \$700 - make me an offer. **Complete station - Heath SB-1400 Transceiver, Heath SBA-1400-4 Power Supply, Sure 444D Mic, MFJ Deluxe Versa Tuner II** – I paid \$400 – make me an offer. **A whole lot of other stuff to whoever wants it.** Downsizing to move to an Assisted Living with no ham access, so I need to sell or giveaway the above items - **MAKE ME AN OFFER !**

Contact: Rod, N4PKW - rodandmary10@gmail.com [03/02/20]

FOR SALE: ICOM IC-7610 - Brand New, *still in the box*. Decided to upgrade antennas instead of radio. Un-opened 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 next Spring.....

Contact: Tom "Parky", KB8UUZ - kb8uuz@gmail.com [02/02/20]

For Sale or Want Ad policy reminder: This is a PCARS **members only benefit**. Please don't ask to list items for a friend, relative or SK estate unless they are/were a member of PCARS. Requests come in from all over the USA (and beyond) to list items for sale or wanted items and we just cannot dedicate that much space to non-members. Listings are good for 3 months unless canceled or changed earlier. The date listed after the contact information tells you when the ad expires - example: [02/02/20] indicates the ad will run until Feb 2, 2020.



Winter Sale Day at **DX** Engineering

DX Engineering will be having their Winter Sale Day on January 18th from 9 am until noon.

DX Engineering has been a great supporter of PCARS and we appreciate all that they have done for our club.

Now, it's our turn to show our appreciation by going to the Winter Sale Day and maybe getting a few items that are on sale. See you there !!!!!

Winter Sale Day



Get Super Deals on Open-Box Gear

Try Out the Latest Ham Radio Equipment

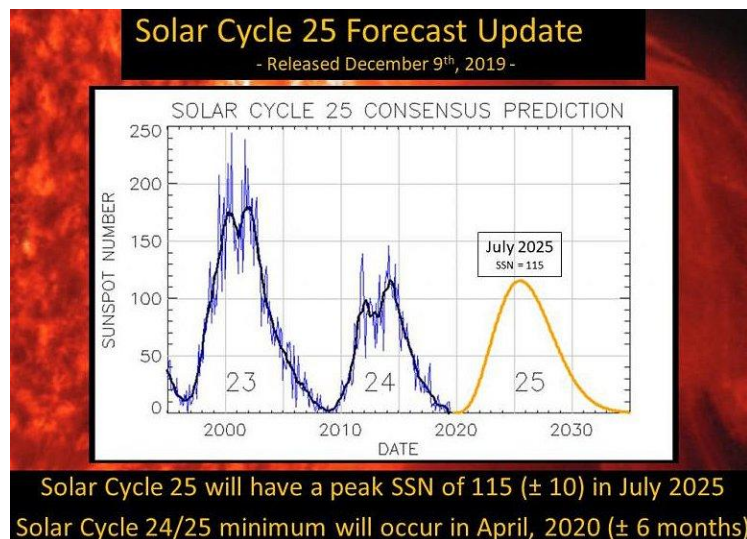
Get Advice from Our Team of Elmers

Hang Out with Other Local Hams

Saturday, January 18th—9 am to Noon
Inside the Summit Racing Retail Store
1200 Southeast Ave., Tallmadge, OH
More Details at DXEngineering.com

Solar Cycle 25 Peak in July 2025

published: Monday, December 09, 2019 22:30 UTC



The NOAA/NASA co-chaired, international panel to forecast Solar Cycle 25 released their latest forecast for Solar Cycle 25. The forecast consensus: a peak in July, 2025 (± 8 months), with a smoothed sunspot number (SSN) of 115. The panel agreed that Cycle 25 will be average in intensity and similar to Cycle 24.

Additionally, the panel concurred that solar minimum between Cycles 24 and 25 will occur in April, 2020 (± 6 months). If the solar minimum prediction is correct, this would make Solar Cycle 24 the 7th longest on record (11.4 years).

Fifteen Years and Still Growing

You may have noticed (or not) that there is a new graphic in a few places in this newsletter. It's a 15 year graphic for PCARS. Yep, **November 14, 2020 will be PCARS' fifteenth year!!!**

Looking back so many people helped make this club what it is today and all of their work is very much appreciated. Looking forward we have some newer people that will step in when the time comes to make PCARS even bigger and better. This club just has too much fun to fade away. So, keep your eyes open, help out when you can, make suggestions to take PCARS into the future - and most of all - **keep it fun.**



From the Ohio Section Manager



Hey Gang...

Scott, N8SY
ARRL Ohio Section Manager



I've had a lot of fun just getting ready for Christmas. If your house is anything like ours, it's filled with the smells of Christmas all over. Janie's been on a mission to bake every kind of cookie that's known to man, and you know what that does to my waistline! It looks like I'm gonna' be spending a lot of time at the "Y" trying to get those extra pounds back off.

I've been busy fumbling around trying my best to wrap up those presents that I bought Janie last year and just recently found. I'm not saying that I procrastinate, but I usually wait until December 23rd or 24th before I get around to even looking at what to get her for Christmas. I guess I'm a lot like my dad on this subject. One year he totally forgot to get my mom anything for Christmas. He came up to our house around 1am on Christmas Eve really upset that he hadn't gotten her something. We comforted him with a couple of presents to give her and sent him home. I didn't know before then that he had always depended on my sisters to do his shopping for mom. That year both of my sisters had gone away on vacation out of state. I don't think my mom ever knew, or if she did, she never let on.

Me, I usually end up just printing off a letter to Janie telling her that her presents were delayed due to fog or snow or Santa just couldn't get his sleigh through, and they would be delivered later. Boy, finding those presents I bought last year just yesterday is a real money and time saver this year for sure.

Thankfully, she didn't need that new mop and cleaning bucket before now! I don't want you to get the wrong idea, I did go out this year and get her something that she really wanted and needs. Yes, she's going to get some new potholders that I got from a friend of mine's daughter that makes them by the dozen. And I'm really glad that she does too. You see I used the last batch of them for cleaning the lawn mower up before putting it away for winter and that has left us running a little low on them. The other day I had to use a bath towel to get something out of the microwave oven. Unfortunately, some of my split pea soup spilled on the towel. Now, trying to be a good boy I hung the towel up like she's always telling me to do after using it, but I forgot to tell her before she got out of the shower that I had used it. Boy, will I ever be relieved when I give her those potholders!

Now, on the positive side of things, I kept the microwave clean by letting the food drip on the towel. The microwave stayed nice and clean. I guess putting the towel back on the rack in the bathroom wasn't such a great idea though!! Oh well, no good deed ever goes unpunished!

I don't know about you, but I'm all thumbs when it comes to getting the tape off the roll and getting it to look pretty after I get it stuck on the package. It's a real chore and it seems that I just can't get it to tear off in the right place, or it wants to split down the middle. Even if I do get it to tear off correctly, I always seem to get a thread or two hanging from the roll and it keeps me from getting that clean look on the package. Having those little threads flopping around from the tape edge makes things stick together when I go to stack the packages on top of each other. I also have issues with how wide that tape is when I go to wrap up small packages. I just wish Duct Tape would come in something less than just two-inch rolls!!

Ok.. Let's slide down the band a bit and get a little more serious... The Hamfest Calendar is filling up fast for 2020. Even though it isn't technically a Hamfest, don't forget that **DX** Engineering is holding their annual Winter Sale on January 18th starting at 9am. Now, like I said, it's technically not a hamfest you'll have to wait until August 8th for that, but it has all the makings of a hamfest for sure. Great equipment for sale and lots of great talk between fellow hams. What more could you ask for!! Being the hearty Ohioans as we are, we even have 2 actual Hamfests scheduled for the dead of January and 1 Hamfest in February!

Speaking of Hamfests, we have 2 big conventions coming up this next year I want you to save these dates on your calendars now!!! **March 14-15** for the **Toledo Hamfest** and **Great Lakes Division Convention** and then later on into the summer, **August 8th** we have the **DX Engineering Hamfest** and **Ohio Section State Convention**. We will be announcing the winners of the Ohio Section Newsletter Contest and the Allan Severson, AB8P Memorial Award recipient at our State Convention at the DX Engineering Hamfest.

Switching bands for a moment... Some of you are still are sitting on the fence about getting registered in ARES Connect. I am still hearing that some of you think that it is just for ARES. This is absolutely not so! ARES Connect is for anyone and everyone, plain and simple. So, now that this rumor has been put to bed, let's get yourself registered in ARES Connect today. My personal goal is to get everyone in the Ohio Section registered and using this new system by the end of this year! Help me out on that and get registered. **We want no one left behind! Let's get it going.... Get registered and start using the system!**

Sliding down the band a bit more... Please, if you haven't renewed or joined ARRL, maybe now is the time. Here's a great idea for you, ask for it as a Christmas Gift, it's not too late! This will be the gift that really does "keep on giving!" for the next 12 months at least! Oh, I will also add, ARRL has a 90 day **FREE** trial offer as well. Take advantage of it if you really don't know if this is for you. What have you got to lose? It's **FREE**.

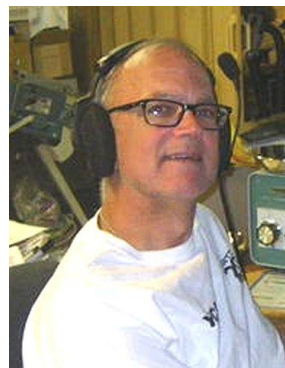
I am still hearing from some of you that you just haven't taken the time yet to do anything with that newly acquired license. Why not? Do you need help? Hey, my best advice for you is to seek out a club and go and listen. You'll be amazed at how much knowledge is floating around that is just looking for a place to land. You got it... **ON YOU!** Have fun with it! Get on the Air!!!

Whelp... That's going to do it for this time around. Stay safe, enjoy the sunshine while we have it, and most of all... have **FUN** and get on the air!!

Janie and I wish you all a very Merry Christmas and a Fantastic New Year!

RTTY/Data - Where on HF?

Rich, N1IXF



For What It's Worth - Here is a quick and easy chart to look at when wondering where to go for RTTY or Data communications on the HF bands:

RTTY Sub Bands							
Band	Contest	Normal	JA	PSK31	Avoid Beacon	FT8	FT4
80	3560-3600	3580-3600	3520-3575	3580		3573	3575
40	7025-7100	7025-7050 7080-7100	7030-7100	7070		7074	7047.5
20	14060-14150	14080-14100	14070-14150	14070	14100 \pm .5	14074	14080
15	21060-21150	21080-21100	21070-21150	21070	21150 \pm .5	21074	21140
10	28060-28150	28080-28100	28070-28200	28120	28200 \pm .5	28074	28180

Getting Out to Parks for HF Fun

John, KD8MQ

Thanks everyone for voting for me as your new trustee. I've been asked a few times to run, but had a hard time making the time. But, when I was recently asked to accept the nomination, it seemed like the right time.



I've been a ham for 39 years, and I enjoy operating HF portable, mostly from state parks. That's what got me involved with the Ohio state parks on the air contest. I enjoy tossing some equipment into the truck, and heading out to see what contacts I can make.

I'm involved in the Parks On The Air & WWFF programs. Just like OSPOTA, popularity of these programs has exploded since 2016 when the ARRL's NPOTA program debuted.

I also keep the PCARS website updated; something I've been doing since 2011, when Jim, KC8PD recruited me to help.



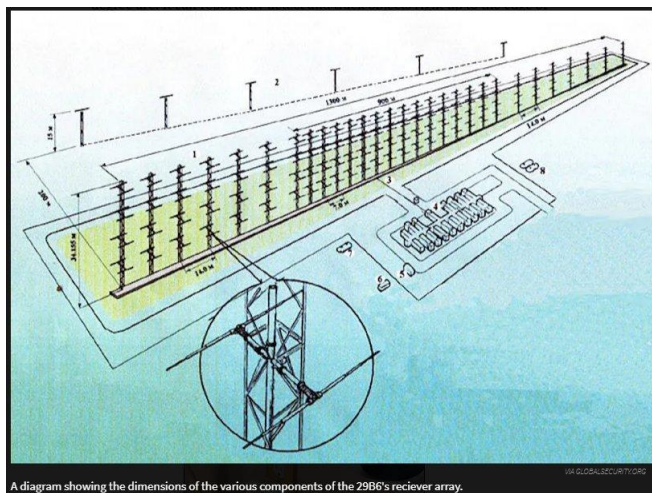
Getting back to the Parks on the Air thing, it's pretty cool to be able to toss some gear in the truck, drive to a park, get on the air, and instantly be rare DX. There are literally thousands of US Parks, forests, historical sites, etc. in the program. Add to that, both programs are worldwide in scope. You will never "work Them All"; not that some aren't trying. On any given day, you can usually find several active park operations on the air. Some refer to these programs as an addiction, and I would have to agree with that.

You can learn more about these programs at <https://parksontheair.com/>, & <https://wwffkff.wordpress.com/>. Both are also on Facebook. Check them out.



PCARS
www.portcars.org





A diagram showing the dimensions of the various components of the 29B6's receiver array.

Russia says it will set up a new, long-range over-the-horizon radar system to help "control" the Arctic by providing additional early warning and monitoring capability with regards to various potential threats, including [aircraft](#), [cruise missiles](#), and [hypersonic weapons](#). This announcement comes just over a week after the head of U.S. Northern Command, who is also in charge of the U.S.-Canadian North American Aerospace Defense Command, called for revitalization and expansion of similar American capabilities in this ever more strategic region.

The Russian Ministry of Defense revealed that the next [29B6 Konteiner radar](#) would be installed in the Arctic on Dec. 2, 2019, according to state media outlet TASS. The day before, the first Konteiner radar, situated in the semi-autonomous Russian republic of [Mordovia](#), officially began operations, six years

after Russia [finished building that system](#). From there, it provides early warning and general monitoring coverage of Russia's western flank, reportedly including most of Europe and portions of the Middle East.

"Further development [of 29B6 sites] is possible towards control of the Arctic," Mikhail Petrov, Konteiner's chief designer, [told TASS](#). "This is what we are dealing with at present and this task is being actively considered." Konteiner is an extremely large, [bistatic](#) system consisting of separate high-frequency transmitter and receiver arrays. The complete transmitter array, which has 36 masts, is just over 1,440 feet wide, while the 144 masts that make up the receiver are spread across an area 4,265 feet wide. The transmitter and receiver sites in Mordovia are around 186 miles from each other.

The system provides fixed coverage in one particular direction across a 180-degree arc. It can reportedly detect and track objects right up to the edge of space and between 1,240 and 1,864 miles away, depending on the size and type of the target, as well as weather and other atmospheric conditions. The 29B6 radar bounces its signals off Earth's ionosphere, an upper region of the atmosphere, to detect targets at such extreme ranges. It does also mean that it is blinded to threats outside of its field of view, though.

These types of over-the-horizon radars are useful for tracking the movement of targets at extended distances, but do not provide the necessary fidelity to actually cue surface-to-air missiles or anti-missile interceptors to shoot them down. They do, however, provide valuable early warning of potential threats as part of an integrated air defense network, so that aircraft, ships, and other ground-based sensors can work identify and possibly engage them. Their range means they can also be positioned further inland, making them less vulnerable to short and no-notice attacks.

Setting up a second 29B6 system somewhere in northern Russia pointed toward the Arctic would make good sense and could potentially provide a wide-reaching, if more generalized capability to monitor for air and missile threats in the increasingly important region. Konteiner's range could allow it to be positioned in [a more hospitable environment](#) rather than a location [well above](#) the Arctic circle, where it could be expensive and complicated to build and maintain the necessary facilities.

It would still be linked to the larger Russian integrated air defense network, which would include smaller ground-based radars, aircraft, and ships based at a growing number of [rehabilitated or all-new](#) Arctic facilities that the country [has been building](#) in the past few years. Some of these air bases are already supporting increased numbers of aerial patrols in Russia's far north, which could benefit from the general information the 29B6 would provide to immediately identify potential tracks of interest.

It's not clear exactly how capable Konteiner actually is at spotting and tracking low-flying cruise missiles or modern hypersonic threats, such as [boost-glide vehicles](#) or [air-breathing hypersonic missiles](#). Regardless, it would still provide important additional long-range radar coverage toward the Arctic.

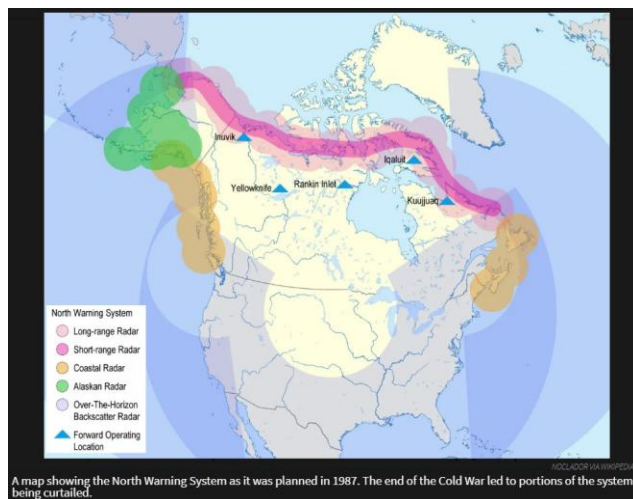
The Kremlin's focus on using the 29B6 to monitor for these threats from that region, as well as from other vectors,

could indicate that Russia is increasingly concerned about American [air- and sea-launched hypersonic weapons](#). This includes missiles that will eventually be available [for some](#) U.S. [Navy submarines](#) that could hide [under the Arctic ice](#) before launching a strike.

Though the Russians have no specifically highlighted this capability, as a [lower frequency radar system](#), the 29B6 could have the ability to at least [detect the presence of incoming stealth aircraft](#) or [missiles](#). It is important to note that bistatic low-frequency active and passive radars do not [negate stealth technology](#) and the 29B6 would not be able to provide accurate enough information for an engagement quality radar track.

Russia isn't the only one concerned about its Arctic flank being exposed, either. On Nov. 23, 2019, U.S. Air Force General Terrence John O'Shaughnessy, commander of U.S. Northern Command (NORTHCOM) and the North American Aerospace Defense Command (NORAD), [raised concerns](#) about limited U.S. military situational awareness in the region at the Halifax International Security Forum in Washington, D.C.

"We have to be aware of what is happening in that environment," O'Shaughnessy [said](#). At present, NORAD relies heavily on the [North Warning System](#) (NWS), which includes 15 [AN/FPS-117](#) long-range radars and 39 [AN/FPS-124](#) short-range radars positioned across northern Canada. The NWS is the successor to the Cold War-era [Distant Early Warning](#) (DEW) Line, a significant portion of which was deactivated as part of the transition process in the late 1980s.



"Simple things become hard," he added, citing specifically how satellite communications become more difficult above 65 degrees parallel north latitude due to how the satellite constellations are situated in orbit. Whether this means the United States may also turn to over-the-horizon radars, as the Russians appear to be, or focus more on other terrestrial capabilities or simply expanding [polar satellite early warning](#) coverage instead remains to be seen.

It's also not clear when Russia's 29B6 radar pointed toward the Arctic may become operational. Russia began developing Konteiner back in 2007 and only finished building the first site in 2013. As noted, it then took another six years for the system to pass a variety of testing and evaluation before becoming operational. At the same time, this experience with the initial example of the system has no doubt provided lessons learned that could help speed up the construction and activation of future arrays.

Regardless, the announcement underscores Russia's steadily increasing efforts to expand its force posture and overall military capabilities in and around the Arctic region.



The U.S. military also [operates a number of large phased-array radars](#), primarily designed for detecting and tracking ballistic missiles, some of which provide coverage over the Arctic. These include [Solid State Phased Array Radars](#) in Alaska, [Greenland](#), and the United Kingdom. These terrestrial sensors are further bolstered by space-based early-warning assets, an area where Russia has historically had much less capacity.

Unfortunately, the foreboding environment makes improving ground-based U.S. early warning capability in the Arctic, including to be able to better spot cruise missiles and hypersonic weapons, which the Pentagon also sees as growing threats, as difficult for the United States as it is for Russia. "We've done this before,"

NORTHCOM and NORAD chief O'Shaughnessy [said](#).

Contact the author: joe@thedrive.com <https://www.thedrive.com/the-war-zone/31271/russia-plans-to-set-up-massive-new-radar-array-to-help-control-the-arctic-region>

ARES® VHF Simplex Contest



**Mark January 11 (Saturday) 10AM - 4PM
for the ARES VHF Simplex Contest!**

This is more important in 2020 as a follow-up to our SET, which was designed to map our simplex footprints. Now, we can exercise that information and get even more by participating! It's a fun event with a purpose.

The purpose of our annual simplex activity is to improve our station and antenna capabilities, and to test our coverage areas on simplex frequencies.

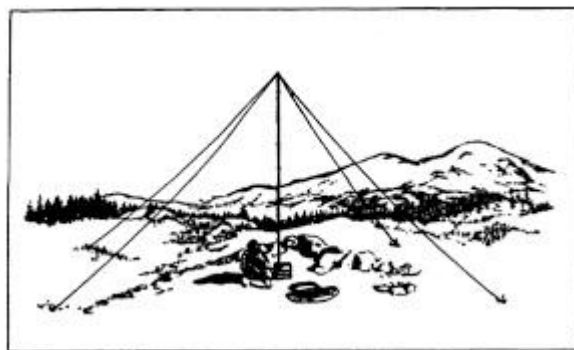
These may be very important in times of emergency, when repeaters have failed, and simplex is the only method of emergency communication. We are NOT giving any consideration for backup power- this exercise is aimed at testing antennas and determining coverage areas.

We've just gotta' thank Jason McCormick N8EI for setting up a website with the complete rules, scoring and who's operating. <https://ohsimplex.org/#rules>

NVIS Day is Coming

Is your station ready to establish and maintain high-reliability communication with other stations around Ohio when repeaters, phone, and internet service are impaired?

When infrastructure just isn't there, HF radio using Near-Vertical Incidence Skywave (NVIS) propagation offers the ability to stay in contact on frequencies of 2–30 MHz for distances of about 30–400 miles.



NVIS Day is the ARRL Ohio Section event to test your NVIS antenna designs. Join us on **Saturday, April 25th** to show how well amateur radio can keep Ohio communicating!

This is not a contest: it's an event for Ohio stations to operate with other Ohio stations and understand how well they hear and are heard.

THE DETAILS - Date: Saturday, April 25 Time: Start at 10 A.M., end at 4 P.M. Power: Up to but no more than 100w Exchange: six-digit grid, power, and true—measured—signal report Schedule: This isn't a contest, so take your time! Try different designs! Have lunch!

We've just gotta' thank Jason McCormick N8EI for setting up a website with the complete rules, scoring and who's operating. <https://ohsimplex.org/#rules>

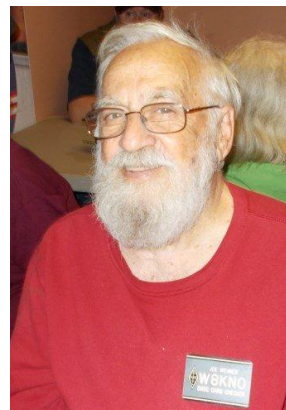


PCARS K8BF
The Club that puts the FUN in Ham Radio!



Paper Chase - Gold Rush 1849

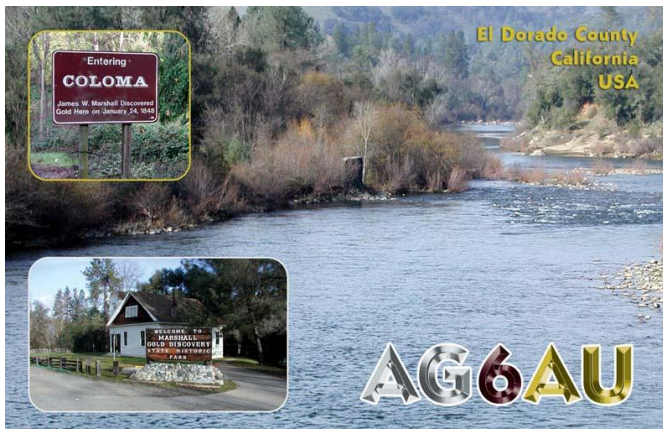
Joe, W8KNO



Gold Discovery History

On January 24, 1848, an event occurred in Coloma that would radically impact the history of California and the Nation. James W. Marshall was building a sawmill for Captain John Sutter, using water from the South Fork of the American River. He noticed several flakes of metal in the tailrace water and recognized them to be gold.

Though he tried to keep it a secret, the word spread quickly and triggered the California Gold Rush of 1849.



To commemorate this event, the El Dorado County ARC will activate a special event from 9:00 A.M. till 6:30 P.M. , our time , on January 25th and 26th. They will be using the call sign AG6AU. A reminder: AU is symbol for Element 79, GOLD. Listen for them at or near 7.248, 14.248 or 21.348.

For a QSL, send a QSL and SASE to: El Dorado County ARC, PO Box 451, Placerville, CA 95667.

WRTC 2022



The WRTC2022 organization has a new website: www.wrtc2022.it



Book mark it and check back once in a while to see the activity it takes to put a WRTC together. Here you can find all information on the event and the qualification rankings for the WRTC2022 in Bolo



Like I said - "It's a Snap"

Larry, W2LJ

QRP - When you care to send the very least!



In one of my blog posts, I mentioned that I renewed my license via the FCC ULS system. It is so easy! I thought for those who might be a bit intimidated by the process, that I would outline it here.

First, you go to the Webpage - <https://www.fcc.gov/wireless/systems-utilities/universal-licensing-system>

Then scroll down a tiny bit to the words "File Online" which will bring you here - <https://wireless2.fcc.gov/UlsEntry/licManager/login.jsp>

This is where you log in. You will need to know your FRN (Federal Registration Number) which is on your license:

Cut Along This

Call Sign / Number	Grant Date	Expiration Date	File Number	Print Date	Effective Date
W2LJ	12-12-2019	03-07-2030	0008910139	12-12-2019	12-12-2019
Operator Privileges Amateur Extra		Station Privileges PRIMARY		THIS LICENSE IS NOT TRANSFERABLE Special Conditions / Endorsements: NONE	
MAKOSKI, LAWRENCE J 327 CLINTON PLACE SOUTH PLAINFIELD, NJ 07080					
AMATEUR RADIO LICENSE FCC Registration Number (FRN):					
FCC 606 - May 2007					

Cut Along This

Cut Along This

Cut Along This

You enter that in, along with your password. If by chance you don't have an FRN, you can obtain one by following the link right on that page. I would think, however, that since my renewal of 10 years is up (and I have an FRN on my old license), then just about every current Ham should have an FRN printed on

their license. If you forgot your password, you can also get that by following the link - right on that page.

Once you log in, it will take you to your license page. On the left hand side of the page, you will see a menu of things you can do in an amber-ish color. Click on "Renew Licenses" and follow the prompts from there. Hit "Submit" when you are done and you will be given an opportunity to print a copy of your renewal filing. Before you hit "Submit". please make sure your e-mail address that the FCC has on file is up to date and accurate. That's important, because in 24 hours you will receive an e-mail with a link to your "Official Copy" of your license - all ready to print out. It comes as a PDF file, so make sure to keep a copy of it somewhere on your computer or device.

And you're done! No fees for Amateur Radio licenses, even for Vanity Calls - so no need to hassle with submitting a payment, anymore. Now all I have to remember is to renew the license for NJ2SP later in 2020.

Check out Larry's blog at: http://w2lj.blogspot.com/?_sm_au=iVVvbbtWvnHFKrNMK74cvKsqG0124



PCARS
www.portcars.org



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 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.



January	
2	K8IV
9	K8YLK
16	KE8BWA
23	KA8TOA
30	AC8NT

February	
6	K8YLK
13	N8QE
20	WB8LCD
27	K8IV

March	
5	WB2DFC
12	KE8BWA
19	WB8LCD
26	AC8NT



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: rgory999@roadrunner.com everyone who is a club member is welcome to have a turn - and have fun being the PCARS Thursday Night Net Control !

And - don't forget - when you check in to the PCARS net 10 consecutive weeks - you are eligible for a Certificate - suitable for framing. But you have to make it 10 week in a row. Miss one, and you start over again. When you get those 10 check ins, contact me so I can check the logs and get the certificate made up for you.

Field Day 2020 - Planning

Tony, WA8AR
Field Day Chairman

January Field Day Planning Meeting

January marks the beginning of planning for ARRL Field Day 2020. The first planning meeting will be held at the club site on a weekday evening sometime during January, when most of our FD Staff will be available. The exact time and date will be announced using our QST system well in advance. These planning meetings will be primarily for the FD Staff but all PCARS members will be invited to attend and contribute to the planning process.



One thing that all PCARS members know is that we had a very fine showing in the 2019 Field Day Contest/Emergency Preparedness Exercise. Our goal however is to make PCARS the #1 club in the nation for our operating class. We have been closing in on that goal. Let's all pull together this year and BE #1!! Please volunteer to help in any way you can!

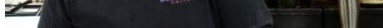


QSL Display at Little City Grill

Tom, WB8LCD



As many of you know, I enjoy a good breakfast at the Little City Grill (LCG) in Kent. I tend to talk to just about anyone, and, I always seem to at least mention Ham Radio in my random conversations. I've talked with the owner, Bert Bellison, many times about Ham Radio and he has taken an interest in not only Ham Radio in general, but also all the activities of PCARS.



About two years ago I asked Bert if we could put some QSL cards up on his back hallway walls, and post some PCARS fliers, just in case anyone was interested. Right now, there are just over 40 QSL cards on display, and Bert welcomes anyone who would like to add their card to the display. Many times, he's told me that someone has come in and asked: "what's this all about"? So, we are getting some exposure. That's a good thing.



A few months ago, a woman commented to Bert that she recognized what the cards were all about because her father had been a Ham. She asked if she could bring in one of her dad's old cards and add it to the display. Her dad was WB8YYK of Massillon, OH. His card is now included in the display. She came back a few weeks later for a meal, this time with her mother. Her mother was moved to tears to see the card as part of the display. I'm sure it brought back a lot of good memories. I'm sure it was also a reminder of what a great fraternity Ham Radio is for its members.



Club Log Updates

Michael, G7VJR



I've been busy doing a range of work on Club Log (hopefully, unnoticed!). This has included some low-level profiling to find performance bottlenecks. With an application like Club Log, the older and more complex code tends to be left untouched for quite extended periods of time. This is basically the "let sleeping dogs lie" approach to maintenance, but once in a while I do like to tear up the old stuff and see whether it can't be improved upon.

I've made a particularly big improvement to the DXCC League Tables (<https://clublog.org/league.php>) which should mean the page loads a lot faster, and when you switch between pages it will not take very long to redraw the next page of the league. This was getting too slow (over 15s) before, and should now take no more than a few seconds on the global league table, and much less on smaller regional ones. The way this was being built before had to consider all possible logs, but now it only considers logs that might actually appear in the league table based on the previous updates - a significant reduction in the amount of work to build the page. I'm keen to hear if anyone has issues as a result of a change so please let me know of any problems.



I've also done some tidying up. Club Log was carrying a lot of dormant accounts; my definition of 'dormant' is accounts that haven't uploaded anything (ever), and no-one has logged in for at least 12 months. I suppose these accounts get created speculatively, and then the person who signed up changes their mind or doesn't

know if they need Club Log after all. Well, these accounts have been deleted today, to free up resources for users who are active. This contributes quite a bit to the smooth running of Club Log, so I am putting automatic house-keeping on this in place to ensure dormant accounts don't accumulate again in future.

Lastly, congratulations to Ken, 6O7O for showing Live Streams off! (Great timing and willingness to try a new feature - super helpful of you Ken, I needed just such a trial run!). The peak audience, if you will, for the Live Stream was 350 people at a time. I can see that A35JT is now getting a lot of attention, and the WWV special event (WW0WWV) is also very popular. I hope you have been enjoying this new tool. I have ironed out quite a few little issues and will look at any changes to features in a month or two, depending on feedback. One I would like to do is automatically chase the latest QSOs by scaling the map view to include the last DX logged and the DX station. This might need to be optional as it does involve a lot of motion on the screen, which some people won't want.

Editor's Note: If you have never been to Club Log you really should check it out. It's a great place to ensure that your DX contact is in their log. It is also **THE** place to go to get QSL cards via the OQRS program. It makes getting those great QSL cards ever so easy! AND uploading your logs is super easy as well. Once you upload, you can then let the OQRS system verify your DX Contacts! Check it out: <https://clublog.org/>

Contest University 2020

Tim, K3LR
Contest University Chairman



I am proud to announce that student registration is now open for the **2020 Dayton ConTest University ("CTU")** to be held all day on Thursday May 14, 2020 at the Crowne Plaza in Dayton, Ohio.
<http://contestuniversity.com> This is the day before Hamvention opens in Xenia, Ohio.

Thu, May 14, 2020
Crowne Plaza Hotel
Dayton, Ohio USA

Registration opened on December 16, 2019 and already 50 testers have signed up! Last year (2019 was a sell out with 350 attending).

Eight different countries have hosted CTUs over the past thirteen years. USA, Australia, Russia, Germany, Italy, England, Brazil and Finland. Over 8500 students have attended these CTUs with more than 100 CTU Professors sharing their contesting experiences. 2020 will be the 14th year in a row for CTU Dayton. To give you an idea of the quality of the CTU content and activities you can see videos and PDFs from past CTUs on the CTU web site.

The 2020 CTU Professor line up will be posted on the CTU website very soon. Thanks to our returning professors NC0B, W0YK, K3LR, W3LPL, N6TV, W3YQ, N0AX and K1DG. You will notice additional NEW professors for 2020 once the posting is complete and posted. CTU professor stalwart Frank, W3LPL is back for CTU 2020 after his sabbatical in 2019. Frank has taught many many sessions at CTU over the past 13 years. The 2020 CTU Dayton course outline will be posted soon. Check the CTU website for updates. Each presentation is carefully prepared with up to date information.

There are scholarships (registration fee paid) available for CTU through a grant from the Northern California DX Foundation (NCDXF) for those students 25 years old and younger. Please use the "contact us" button on the CTU website to get more information. 2020 Student registration information is on the CTU web site
<http://contestuniversity.com>

Important - as we did last year - if you want to sign up for CTU 2020 Dayton and you have given (or will give one by Hamvention 2020) a talk about Amateur Radio to any club, Hamfest or group since May 14, 2019 - you qualify for a \$10.00 registration fee discount.

Contest University

Please choose the "Registration with Club talk discount" option to get the \$10.00 discount. Spreading the word about amateur radio is lots of fun and can save you money at CTU!

Thanks to all of the CTU sponsors including Icom America, DX Engineering, the Northern California DX Foundation, YASME, the Radio Club of America and CQ Magazine for making CTU possible. Thanks to K8MNJ and K1SO for all of their help with CTU. Special thanks to Scott, KA9FOX from QTH.com for hosting and constructing the CTU headquarters web site.

ARRL Reshapes Podcast Offerings for 2020



From the ARRL

In conjunction with the launch of its new [On the Air](#) magazine, which is aimed at those just beginning their journey in amateur radio, ARRL is reconfiguring its podcast lineup.

Heading up the new schedule will be a free companion podcast to the bimonthly *On the Air* magazine. The monthly *On the Air* podcast will take a deeper look into select features and projects from the magazine. Each month, host and *On the Air* Editorial Director Becky Schoenfeld, W1BXY, will offer additional resources, techniques, and hints to help less-experienced radio amateurs to get the most from the magazine's content. In addition to the podcast, ARRL Product Development Manager Bob Inderbitzen, NQ1R, will curate a free *On the Air* blog featuring content from the communicators and makers who are the driving force of amateur radio today. The blog will highlight opportunities and activities available to new licensees. The *On the Air* blog is intended as an entry point into the world of amateur radio for those seeking original voices and perspectives. Readers will be [invited](#) to take part in the conversation by sharing their stories and experiences.

ARRL's current [So Now What?](#) podcast will cease production in January, as the full complement of *On the Air* content is rolled out. The [catalog](#) of *So Now What?* episodes is available for listening or downloading.

In addition, [The Doctor is In](#) podcast, which has served more-experienced amateurs since 2016, will conclude its 4-year run with its December 19 episode. *Eclectic Tech*, a new biweekly podcast designed to appeal to experienced amateurs, will launch in February. Hosted by *QST* Editor Steve Ford, WB8IMY, *Eclectic Tech* will highlight technical topics involving amateur and non-amateur technology, offer brief interviews with individuals involved in projects of interest to amateurs, and include practical information of immediate benefit to today's hams.

The Doctor is In co-host Joel Hallas, W1ZR, is selecting some of his favorite podcast episodes for re-broadcast in the interim between the end of production for *The Doctor is In* and the debut of *Eclectic Tech*. The complete *The Doctor is In* [archive](#) is available on the ARRL website. Hallas will continue to answer questions about amateur radio in *QST*'s "The Doctor is In" column.

The [ARRL Audio News](#) podcast will continue to provide a weekly summary of news and activities within the amateur radio community.

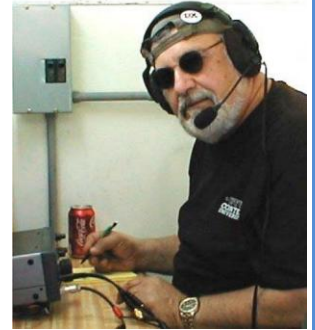


PCARS K8BF
The Club that puts the FUN in Ham Radio!



Charlie the Tuner's HF High-Lites

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



Greetings to all DXers:

HAPPY NEW YEAR!! I hope that Santa was kind and generous to all of my fellow PCARS Members. I'm looking forward to hear all the stories as to what you all received for Christmas.

It was nice to have that week of milder WX during December but if you were like me, suffering from a severe head cold and not able to do anything outside, it was a frustrating experience. All that 40 degree weather and not able to stick my nose outside. All I did was stare at my completed antennas while they sat on horses in my back yard waiting to be installed on the mast. Man, that is torture! But this too will pass and soon all will be right with the world. In other words I will be working whatever DX I hear with a brand new set of aluminum in the air. I'm trying something new with this first issue for 2020. Hopefully it will make it easier for those who take this column and try to mark up their calendar with the various DX event dates.

As always thanks to the Northern Ohio Amateur Radio Society, Northern Ohio DX Association, Ohio/Penn PacketCluster Network, the AB5K's AR Cluster Networks, ARRL, NJ1Q & W1AW, AA3B, NG3K & ADXO, NY3B, W3UR & The Daily DX, K5GS, AA7A, K8BL, K8GI, K8YSE, W8GEX & 60m DX News, W9ILY, DL1SBF, DL7UXG & The DX News Letter, DxCoffee.com, DXNews.com, DX-World.Net, F5NQL, F6AJA & Les Nouvelles DX, I1HYW, I1JQJ/IK1ADH & 425 DX News, OH2BH, Pete Rayer & ISWL, RN3RQ, 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.

POSSIBLE NEW DXCC ENTITY (Update). On November 23rd, more than 200,000 registered voters on the Islands of Bougainville, part of the Papua New Guinea (PNG), headed to the polls to cast their ballots to choose between "greater autonomy within PNG or full independence." Bougainville voted overwhelmingly (98%) for independence from Papua New Guinea. The government of Papua New Guinea has not yet announced what they are going to do next.

KD8WCK notes he was on the radio much of the day Christmas Day, and didn't make a lot of contacts but had some nice conversations. "Right around 2200Z I noticed I was right on the gray line so I thought I better try 20 meters PSK-31 and maybe get South America. Called CQ a little and didn't see much, and was just about to move away when I saw a decent (459) signal. It was Suke JM7OLW in Fukushima prefecture, Japan. Fortunately he has an excellent station, and a lot of patience, and stayed with me until he could confirm my call sign, after a dozen repetitions, and a 339 signal report. This was done on an FT-890 at 50 watts into an inverted-V that's up about 15 feet. My QSL card is in the mail by the time you read this! His will definitely be framed on the wall."

January -

T8, PALAU. Kazuyoushi, JH6WDG, will once again be active as T88AQ from the VIP Guest Hotel (Free Radio Room) on Koror Island (OC-009) between January 7-13th. Activity will be on 160-6 meters using CW, SSB and the Digital modes. QSL via his home callsign or LoTW. For more details about the VIP Guest Hotel (Free Radio Room).

T8, PALAU. JA operators Shimatake/JI3DNN (T88CZ), Kunio/JH3LSS (T88DK), Shozo/JA3HJI (T88DN), Jusei/JA3IVU (T88ED), Tatsuo/JA3ARJ (T88EF) and Masum/JA3AVO (T88MB) will be active from the VIP Guest Hotel (Free Radio Room) on Koror Island (OC-009) Jan 15-23. Activity will be on 160-10 m using various modes. QSL

via their home callsigns.

C5, THE GAMBIA. Russell, G5XW, active as C5XW from The Gambia starting January 28 for 10 days. Activity will be holiday style on 40-17 meters using SSB and possibly CW. QSL via his home callsign, direct or by the RSGB Bureau.

HU1, EL SALVADOR (Update). Operators Andreas/DH8WR, Werner/DJ9KH, Frank/DL1KWK, Dietmar/DL2HWA, Bert/DL2RNS, Georg/DL4SVA, Olaf/DL7JOM, Rolf/ DL7VEE and Franz/DL9GFB will be active as HU1DL from El Salvador between January 30th and February 13th. Activity will be on 160-10 meters using CW, SSB, RTTY and FT8. QSL via ClubLog's OQRS (direct and Bureau).

J6, ST. LUCIA. John, AI6LY, will be active as J6/AI6LY from Soufriere, St. Lucia, between January 4-11th. Activity will be holiday style on various HF bands. QSL via his home callsign.

TM70TAAF, FRANCE (Special Event - 70th Anniversary of the First Amateur Radio contacts with FSAT - TAAF). Between January 12-26th, look for special event station TM70TAAF to be activated by François, F8DVD. The special callsign commemorates the 70th anniversary of the first Amateur Radio contacts with French Southern and Austral Territories (FSAT- TAAF). QSL via the Bureau, direct with a SASE (1 IRC or 2 USDs) or LoTW. Only QSLs received will be answered. All QSOs will be uploaded to LoTW. For more info on TM70TAAF.

VE8, CANADA. Garth, VE8NSD, member of the North Country DX Association (NCDXA), will be active as VE8RST from Hay River, Northwest Territories (NT) between January 1st and February 28th. Activity will be on various HF bands. QSL via K7ICE. For updates, watch QRZ.com or the NCDXA FaceBook page.

VK9N, NORFOLK ISLAND (Update). Janusz, SP9FIH, will be active as VK9NK from Norfolk Island (OC-005) between Jan 12th and Apr 12th. He states, " It is my tribute to Jim Smith, VK9NS, who lived and operated from there for years. According to last internet poll VK9N is 85th most wanted entity." Activity will be on 160-10 m using SSB, RTTY and FT8. Suggested frequencies are: SSB - 7095, 14195, 18140, 21195, 24940 and 28420 kHz

RTTY - 1845, 3569, 7045, 10145, 14095, 18095, 21095, 24920 and 28095 kHz FT8 (F/H) - 1845 (1908 JA), 3569, 7045, 10145, 14095, 18095, 21095, 24920 and 28095 kHz Equipment will be an IC-7200 and Expert 1.3K-FA into a Spiderbeam and verticals. QSL via SP9FIH or ClubLog's OQRS. His Web page is now online.

VP2M, MONTSERRAT. Duane, WV2B, will be active as VP2MDT from St. Peters, Montserrat (NA-103), between January 9-15th. Activity will be on various HF bands. QSL via WV2B direct.

ZC4, UK SOVEREIGN BASE AREA CYPRUS. Members of the Cambridge University Wireless Society (CUWS) will be active as ZC4UW from UK Sovereign Base Area on Cyprus (AS-004) between January 2-7th. Operators mentioned are Martin/G3ZAY, Simon/G7SOZ, Michael/G7VJR, Stavros/M0BBB (5B4AFM), Dominic/M0BLF, Robert/M0VFC, Dan/M0WUT and Will/M0ZXA. Activity will be on 160-10 m using CW and SSB. QSL via ClubLog's OQRS or LoTW. Logs will be uploaded to ClubLog and LoTW. So please use ClubLog's OQRS and do not send any cards direct or via the Bureau.

February -

4K6, AZERBAIJAN. Furkan, TA7AOF, active as 4K6/TA7AOF from Bakü Feb 7-12th. Activity will be on various HF bands using SSB and RTTY. Primary focus is the CQ WPX RTTY Contest (Feb 8-9th). See QRZ.com for direct QSL info. All QSOs will be uploaded to LoTW, Clublog, QRZ.com and e-QSL. Watch Furkan Blog for possible updates.

5H, TANZANIA. Chas, NK8O/VE3ISD, active as 5H3DX from Zinga, Tanzania, Feb 16th to Mar 16th. Activity will be from the pediatric hospital at Zinga. Usual operations will be holiday style. Power output will be the legal limit for Tanzania at 100w and the primary antenna should be a Hexbeam configured for 40-6 meters, including the WARC bands. Operations will be primarily CW, with PSK31, FT8 and possibly SSB. He states that he will use a simple wire antenna and his KX3 with a KXPA100 amp. See QSL info on QRZ.com. Also, QSL via LoTW and eQSL. NO Bureau.

CE9/HF0/VP8, ANTARCTICA (Update). Seba, SQ1SGB, will be active as VP8HAL (instead of CE9/SQ1SGB) and HF0ANT from Halley VI British Antarctic Research Station and the Polish Henryk Arctowski Station on King George Island (AN-010, WLOTA LH-0312), until February 8th. Activity will mainly be in 40/20 meters using SSB and the Digital modes (FT8/JT65). QSL via his home callsign direct only.

FS, ST. MARTIN. Mike, VE7ACN (aka RW0CN, VA7XW, AA7CH), will be active as FS/RW0CN from Saint Martin Island between February 9-16. There is a possibility (but not guaranteed) of a side trip to Tintamarre Island (NA-199) as FS/VE7ACN. Activity will be on 80-10 meters (possibly 160m, if there is room) mainly CW and SSB (FT8 very unlikely). He also plans to be in the ARRL DX CW Contest (Feb 15-16). Equipment is a K3 w/Expert 1.3K-FA (1300 W) into a vertical and/or Inverted V. QSL via ClubLog's OQRS (preferred), LoTW, direct or by the Bureau to VE7ACN.

TO3, MARTINIQUE. Kan, JJ2RCJ, will be active as TO3FM from FM5BH's Ducos QTH on Martinique (NA-107) between Feb 3-8. Activity will be on 80-10 meters (possibly 160m) focusing on FT8 (F/H). QSL via JJ2RCJ, direct, ClubLog's OQRS, LoTW or eQSL. All QSOs will be uploaded to LoTW and eQSL after operation. NO Bureau.

PACIFIC TOUR. Operators Will/AA4NC and Ron/AA4VK will be active from four islands. Their schedule: French Polynesia As TX4N between Feb 11-17. Will to be active during the ARRL DX CW Contest (Feb 15-16) as a Single-Op-Low-Power entry. Norfolk Island As VK9NR between Feb 20-25. Vanuatu As YJ0NC between March 3-6th. Fiji As 3D2AA during the ARRL DX SSB Contest (Mar 7-8) as a Single-Op-Low-Power entry. Operator will be Will. Activity on most islands will be holiday style on various HF bands. No other details were provided. QSL all call signs via EA5GL.

March -

CE0Y, EASTER ISLAND. Mike, VE7ACN, active as CE0Y/VE7ACN from Easter Island between Mar 19-30. Activity will be on 80-10 meters (possibly 160m) using CW and SSB. QSL via VE7ACN, ClubLog's OQRS or LoTW.

W8S SWAINS ISLAND DXPEDITION (Update). Upcoming DXpedition to Swains Island (OC-200) will take place between Mar 10-25. The list of international operators signing as W8S are as follows: Hans/DL6JGN (Team Leader), Ronald/PA3EWP (Co-Team Leader), Uwe/DJ9HX, Axel/DL6KVA, Dieter/ DJ9ON, Steve/AG4W, Adrian/KO8SCA, Martin/PA4WM, Gerben/PG5M (QSL Manager) and Rainer/DL2AMD. Activity on all HF bands using CW, SSB, FT8 and RTTY, with 4 stations from 2 separate camps.

YJ, VANUATU. Operators Will/AA4NC and AA4VK will be active as YJ0NC from Port Vila, Efate Island (OC-035) during of March. This is part of a South Pacific DXpedition which they will activate 8 country. Activity will be holiday style on various HF bands, but will include the ARRL DX Phone Contest (Mar 7-8). QSL via AA4NC.

IOTA NEWS...

AF-019. Operators Silvo/S50X, S51V, Krajcar/S52P, Peter/S54W, Pavla/ S56DX, Berto/S56N, Slavko/S57DX and Drago/S59A will be active as IG9/homecall from **Lampedusa Island** between Jan 21-27. Activity will be on 160-10 meters, and this will include the CQWW DX 160m CW Contest (Jan 24-26) as a Multi-Op entry signing as IG9/S59A. QSL via their home call signs.

AF-063. Members of Low Bands Contest Club (OM7M) will take part in a DXpedition to **Pemba Island**, Tanzania, between Feb 6-18. Activity will be on 160-10 m using CW, SSB, RTTY and FT8. They will also take part in the ARRL DX CW Contest (Feb 15-16) and the CQ WPX RTTY Contest (Feb 8-9). Ops will use 2x K3 TCVR, 1xTS590 with 2xPA Expert 1K3 PA and Vertical antennas for HF bands. The license is issued and the call sign will be 5H4WZ. Operators mentioned are Karel/OK2WM, Lubo/OM5ZW, YL Margita/OM5MF, Jozef/OM4AZF and Leszek/SP9LJD. Logs will be uploaded to ClubLog. QSL via OM3PA. More details will be forthcoming.

AS-015. Rich, PA0RRS, will once again be active as 9M2MRS from **Penang Island**, West Malaysia, between Dec 2nd (2019) and Feb 28th. Activity will probably be on 40-10m using CW, RTTY, PSK, FT8, FT4 and possibly SSB (he will have a microphone in the luggage, but normally no SSB [possible on request]). Rich will have a Yaesu FT450D with 100 watt into a G5RV dipole with bents on the balcony of the house and a MFJ automatic intellituner for all bands. QSL via his home call sign, ClubLog's OQRS, LoTW or eQSL.

AS-153. Members of the West Bengal Radio Club (VU2WB) will be active as 8T2G from **Ganga Sagar Mela** between Jan 10-17. Activity will be on various HF bands. QSL via VU2NRO.

Well, there it is. I hope that you get on and work some DX. While my antennas are down, I would really appreciate an email or two letting me know what you might be hearing and working. And I hope the new format works for you all. 73 until next month.

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!!



Amateur Radio - The Future

The theme for the 2020 [Dayton Hamvention](#)® will be
"Amateur Radio, The Future"



Hamvention General Chair Jack Gerbs, WB8SCT, invited Hamvention attendees to celebrate amateur radio's past, present, and future. "As amateur radio operators, we enjoy many modes of operating," Gerbs said. "We also enjoy challenges such as satellite communications, moonbounce, meteor scatter, and more. What truly excites me about our hobby is the diversity of these modes and the fact that, as we move to the future, we still enjoy the technologies of the past."

Gerbs noted that Hamvention has long been a place to find vintage parts and gear and to see the latest technology. "The theme acknowledges the role that amateur radio has always played and will continue to play in future communication developments," Hamvention said, acknowledging the contributions of the many hams who actively work on new ideas, equipment designs, and software to improve electronic communication. Hamvention 2020 takes place May 15 - 17 at the Greene County Fairgrounds and Expo Center in Xenia, Ohio.

Additionally - HAMVENTION TO RAISE FEES for 2020! The ARRL Web page and Letter reports that the Day-Xenia Hamvention is increasing the cost of admission and its booth fees. The cost of general admission would rise by \$4 per ticket to \$26 in advance or \$31 at the gate for all 3 days. The cost of flea market spots will go up by \$5 per space, and inside exhibitors will pay \$30 more per booth.



CW/QRP & Linux Special Interest Groups

Terry, KB8AMZ



CW & QRP SIG

Second Tuesday, January 14th, will mark our first SIG beginning at 1900 hours, 7 P.M., at the PCARS club site. We will again have **Get On the Air** for persons licensed or studying for a Amateur Radio license providing you can receive and send Morse Code. Beginners should use a straight key. If you don't have a straight key I have one to loan you at the SIG. Non-licensed persons will use the call sign of the person helping them get on the air. Think you send too slow to get on the air? You should come to the clubhouse to hear there are others that are actively on the air sending at CW speed slower than the previous required 5 wpm. Your goal should not be how fast you can send but to get on the air and experience contacting another ham and making a new friend. See you at the first Special Interest Group for low power Morse Code communications.

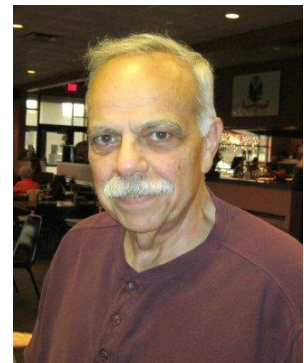
Linux for Hams SIG

Our Special Interest Group meets when there is a fifth Tuesday in a given month. For the past several years we've enjoyed meeting 5 times per year. In 2020, there are only **four months** that have a 5th Tuesday. If you value our special interest group, as I do, you will make an effort to attend the few meetings we have. Unlike the other SIG's that have up to 12 meetings per year and may have several cancellations we do not have that luxury.

I sent a QST regarding the last **Linux for Hams SIG in 2019** listing the four months our group will meet in 2020. Please mark your calendars so you can be at the four Special Interest Group meetings.

Antenna Special Interest Group

Tony, WA8AR



The Antenna SIG will meet at 7:00 PM in the PCARS club site radio room on the third Tuesday of every month. This month our meeting will be held on Tuesday, January 21st. All PCARS members and guests are welcome to attend the SIG meeting. We will be discussing all antenna related topics including selection, design, construction, trouble shooting and safety for all Amateur Radio bands.

This year I have selected antenna modeling as an on-going special discussion topic for 2020. I would like to see us develop antenna modeling as a practical, relatively easy to use, tool that any PCARS member can take advantage of when designing a antenna system for their QTH.

Always check the PCARS web site and watch your email for QST's regarding ASIG updates or last minute cancellations, before going to the club site for a meeting (Especially during the winter months).



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



DX and Contest Special Interest Group

Chuck, W8PT



Since we completed our last meeting for 2019, we are looking forward to the start of the Contest season for 2020. We have listed those contests already and they will be listed again in the near future.

But just as a reminder, we will be kicking off the Contest season with our RTTY Training Session on Saturday, January 25th using the BARTG RTTY Sprint as our training vehicle. George, K3GP, will be our trainer as in the past. If you have not attended one of these training sessions, you should really consider coming. It's a lot of fun with no pressure at all and you will get a new perspective on an old communication mode.

During our first Special Interest Group meeting on Tuesday, January 28th, we will take up the topic of our annual QRP event, Freeze Your Acorns Off. Again, this is a fun event with a lot of fellowship and great food. So come on out and be a part of the planning.

As you know, each year in February, certain brave members of our club, put on several layers of warm clothing to brave the frigid wind and deep snow to set up a portable station in order to make as many QRP contacts as they can. The aim is to secure the bragging rights for at least a year, saying that they are the best at doing what most of the rest of us do from the comforts of our homes.

Well, this coming February 8th will be no different. We may have 40 degree WX or it may be a winter whiteout. But there will be antennas up, wobbling the ether, trying desperately for one more contact to nail down first place in PCARS 15th Annual Freeze Your Acorns Off (FYAO) QRP event.

Many of the annual regulars will be attending, hoping to recapture that elusive first place honor so that their name will be placed on the FYAO plaque. But I'm hoping to see some new faces that will give some of the "old timers" a run for their money.

And even if you are not one of the brave (I use the term loosely) operators that set up in the cold, you can still join us for fellowship and some really great food. That's right, we do not go from this event hungry. That's because we also have a contest going on at the same time. This contest is the Best Recipe Contest, where the various master's of the crock pots bring their favorite dishes to see if they will be crowned King or Queen of the Culinary Realm. We might be treated to the best in Chili, or stew or Mac 'n Cheese. There might be a pot of Sloppy Joe, a great tasting soup or a Peach Cobbler.

So come on out to Fred Fuller Park located at 497 Middlebury Rd., Kent. We meet at the Roy Smith Shelter House starting at 9AM to set up with the event officially starting at 10AM and going until 3PM.



Work the World on 100 watts

Rick, WA8TSI

The Old Curmudgeon



Alpha, Dentron, Ameritron, Drake, Heathkit and many, many more... there is no shortage of RF amplifiers. It doesn't matter whether you look at a hamfest or the various equipment suppliers, there's a LOT of power amps available. I've never owned one.

I started out in my youth as an audiophile. I wanted to listen to the cleanest, clearest most faithful reproduction of music that I could. The most money I spent for one item was for a Benjamin-Miracord turntable. Do you remember turntables? I added an Audio-Technica phono cartridge to it and had one of the best record players available. I wanted a Crown or Macintosh or Fisher amplifier to go with it. Those companies still used vacuum tubes in those days and produced warm clear sound with superior power and frequency response.

Alas, the audio amplifiers mentioned above were well out of my price range. I desperately needed the high quality turntable so the source sound would be as "clean" as possible. In those days much was said about something called wow and flutter. Also important were tracking and anti-skate. Needle pressure had to be watched, too.

Think of the turntable as a fine, high quality desk microphone. That's the audio source for your SSB/AM/FM rig. Generally speaking, the better (more expensive) the microphone, the better the sound.

Now the best I could do for an amplifier was a transistorized Realistic from Radio Shack. I lamented that fact to Dave McGaffney. He was the manager of the RS store in the Stow-Kent plaza. This was in 1965. Dave was also an audiophile and a great source of information for a 14 year old kid who was building a stereo system. Between odd jobs and sympathetic parents, I could come up with a few bucks. Dave gave me this advice: "Buy the best turntable and speakers that you can afford. Don't fret the amplifier." WHAT!!!!??? Don't fret the amplifier? What nonsense is that?

Dave explained that the crossover distortion and total harmonic distortion that I was concerned about was something that I probably wouldn't be able to hear anyway. He also said that a good, clean low power amplifier would serve me better than a high priced and high power amp. Hmm. Dave went on to explain that it's the audio source and the transducers (speakers) that make a good system. A \$2,000.00 Crown amp (in 1965 dollars!) would still sound crappy on crappy speakers. Epiphany! So I bought some moderately priced (but still good quality) Advent speakers and a Realistic 50 watt per channel stereo amplifier. Wow, did that sound great! I was never able to use all of the Class AB1 power available- it was deafening. And Dave was right... the crossover distortion was indiscernible.

So, what's the takeaway here? You can put up one hell of an antenna system for the price of a new KW linear. If you don't have the disposable income to be K3LR or W3LPL, then don't. Anyone can bust a pileup with QRO, sure. But with a bit of patience you can make that contact with 100 watts and a good antenna. Why?

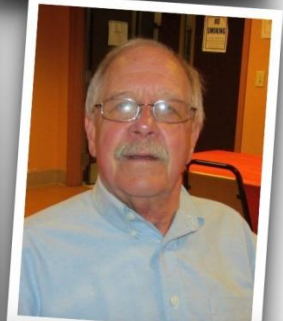
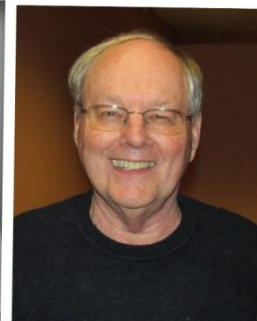
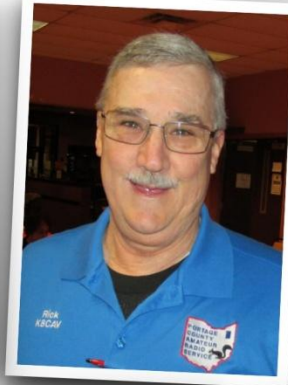
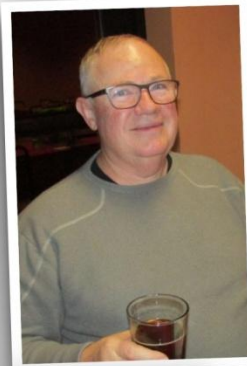
The dB difference between 100 watts and 1,000 watts is 10 dB. There are six dB per "S" unit in most (not all) receivers. So, if a guy has 1,000 watts into a 10 dB gain antenna he has 10,000 watts ERP, and then the guy with 100 watts into a 10 dB antenna has 1,000 watts ERP. That's still a 10 dB difference in signal strength. With 6 dB per S unit the 100 watt station will be less than 2 S units below the guy with a kilowatt. If the "big gun" is S-9, then the little guy will still be better than S-7. Hmm.

If the antenna is your transducer and the desk mike is your source, then that's where your attention should go. Heck, with FT-8 and JT-65 you can work the world on a couple of watts. Personally, I've been opposed to those modes but that doesn't mean you will be.

I've operated barefoot for almost 54 years now. I've worked the world on 120 watts or less. Yes, a nice, new ACOM amplifier WILL make you louder. But is it worth several thousand bucks to pick up a lousy 2 S units? Put your money into a good key or keyer unit, desk mic and most importantly, antennas. They are more important than power. Unless, of course, you just want bragging rights.

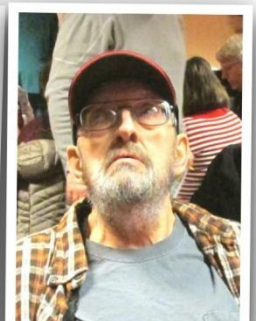
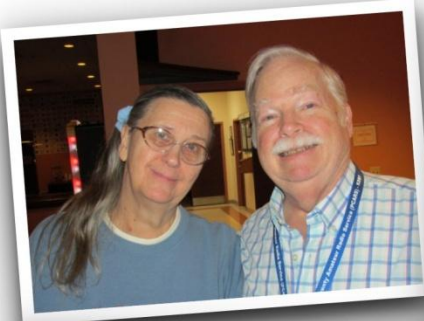
Photos from the December Christmas Dinner Meeting



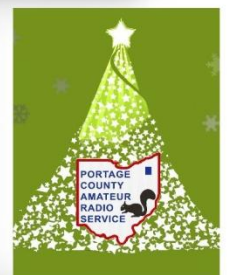
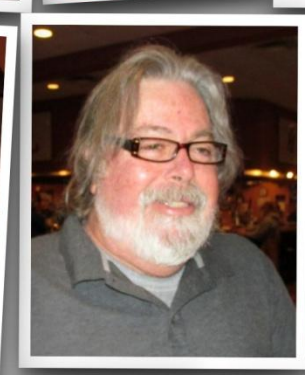
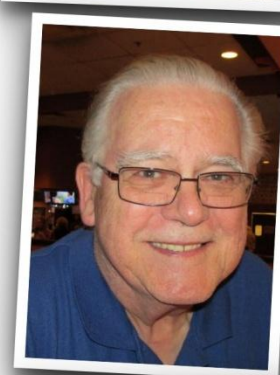


PCARS Christmas Dinner - Dec. 9, 2019





PCARS



PCARS Christmas Dinner - Dec. 9, 2019



2020 - What Will You Do in Amateur Radio?

Parky, KB8UUZ



Here it is - 2020 has arrived, and with it comes the hopes and the plans for a new year. So, now is the time to make a few resolutions that will hopefully be fulfilled. Here's just a few that you might want to choose from:

1. Upgrade your license. Go for that General or maybe that Amateur Extra. Open up more of the spectrum for you to play radio in.
2. Already upgraded to Amateur Extra? How about giving some back to the hobby to help out the newer hams. Become a Volunteer Examiner (VE). It's easier than you think. You can find out all the details on the ARRL web site (<http://www.arrl.org/become-an-arrl-ve>). You download the VE manual, read it over once. Read it again and answer the 40 questions (it's an open book test). Then send the test into the ARRL. As soon as you get your VE credentials from the ARRL - you can attend VE test sessions and help give tests to new and upgrading hams.
3. Attend the PCARS functions at the club site. New and old hams will be there and someone will be looking for an answer to a question that you just might have the answer for! Be an Elmer and help other hams learn from what you have learned.
4. Go Portable. Get your rig and antenna and a power source and get out somewhere in the wild (or not so wild) and get on the air and make contacts. You may just find out how much fun that can be. Check out the Ohio State Parks On The Air (OSPOTA) (www.ospota.org) contest in September - a great reason to get out and get portable!
5. Try a new mode in ham radio. Try digital. It seems that since the solar cycle is going down there are many DX stations taking up FT8 and FT4, weak signal digital protocols. You don't need high power (in fact it is frowned upon unless you keep it LOW) to make some pretty good DX.
6. Go through the log and send out QSL cards both statewide and DX. It's always fun receiving cards in the mail from some of those far off places. Make sure you have envelopes in the ARRL In-Coning QSL Buro.
7. Work on Wall Paper. No, not that stuff your XYL wants you to do, but the wall paper you hang up in your radio room - **certificates!** Go for your Worked All States, Worked All Continents, DXCC and more. Look up the requirements and get busy. If you've been on the air for a while, you just might be close to getting an award!
8. Renew your membership in PCARS. Help keep the club going and lend a hand once in a while during club projects. It really is a lot of fun.
9. If you are not an ARRL member - JOIN NOW. The ARRL is the ONLY organization fighting to keep our parts of the frequency spectrum for Amateur Radio use!!

So - that's a start. I'm sure if you think about it, you could come up with more goals for 2020. Here's wishing all your goals and then some are achieved. Don't forget to **have fun** with amateur radio !



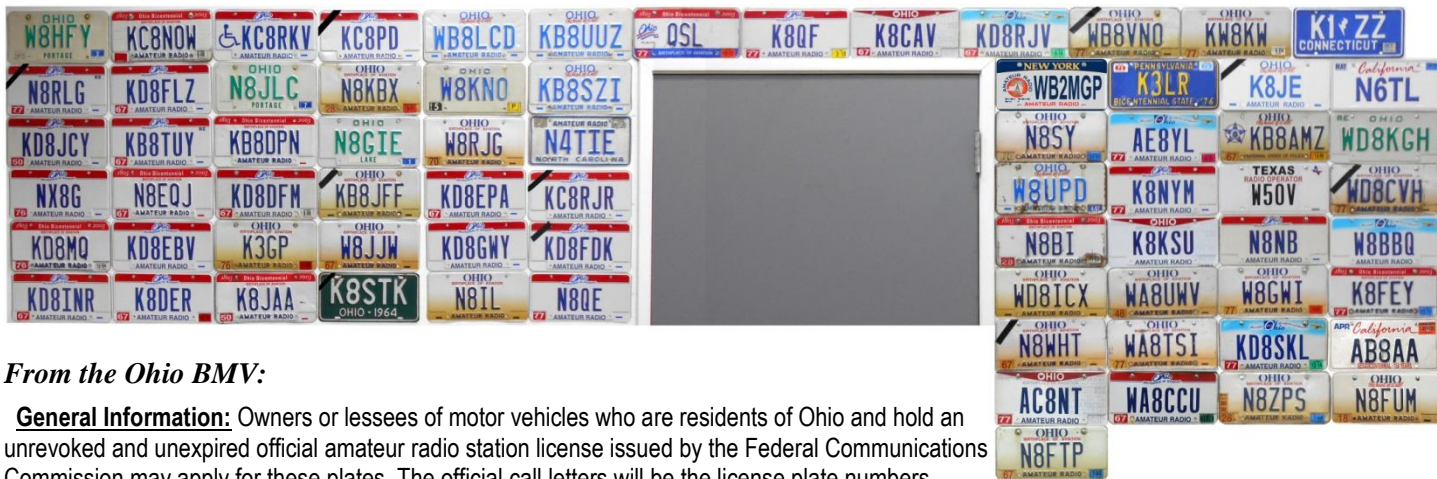
PCARS
www.portcars.org



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.

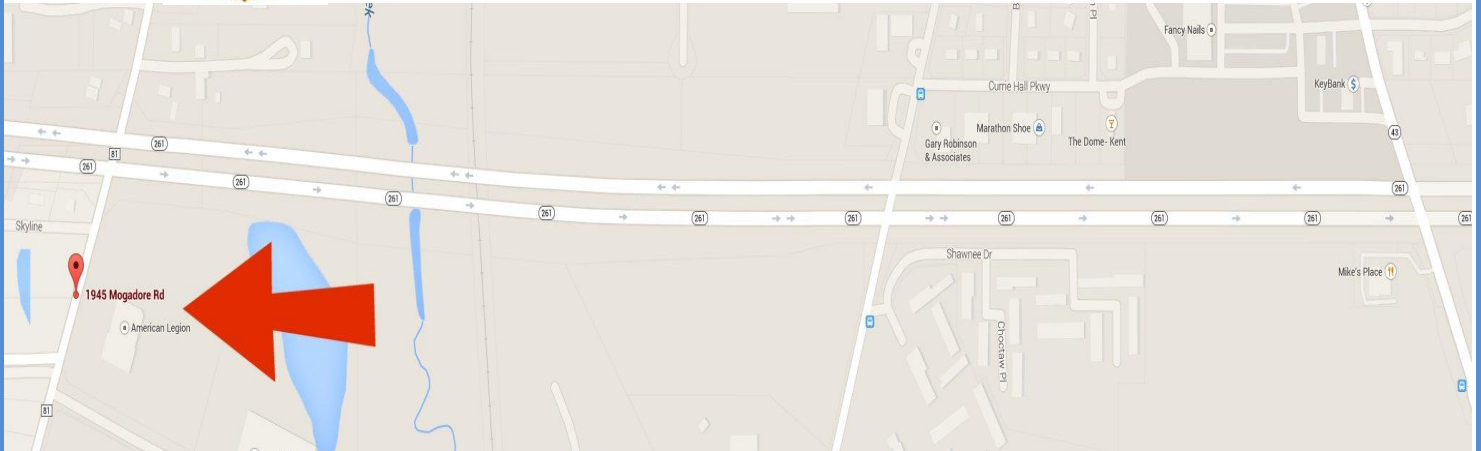


PCARS Meetings

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.

Winter Sale Day

Inside the Summit Racing Retail Store



Get hot winter deals on open-box gear and more at DX Engineering's Retail Showroom. We'll have radios hooked up and ready for you to try live. Warm up with coffee and doughnuts and make eyeball QSOs with your fellow amateur operators.

Our team of Elmers will be on hand to offer advice and suggestions. It's the perfect chance to resolve a nagging station issue.

Winter Sale Day at DX Engineering, learn more at DXEngineering.com.

DX ENGINEERING®

Check in at the N8DXE Repeater, 146.985 MHz, no PL.

Portage County Amateur Radio Service, Inc.



PCARS - K8BF

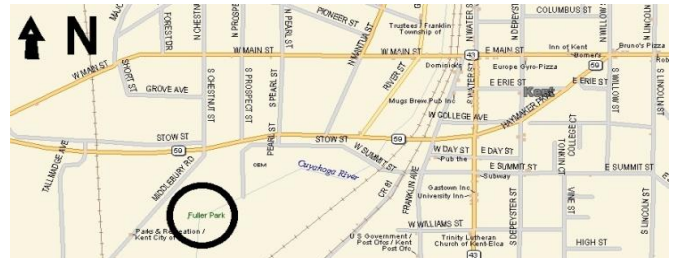
15th Annual

**"Freeze Your Acorns Off"
(FYAO) Special Event Station**



Where: Fred Fuller Park - 497 Middlebury Rd., Kent, Oh
at the Roy Smith Shelter House

When: Saturday - Feb. 8, 2020
Set up: 9 am



Operating Time: 10 am - 3 pm EST

We will be active on CW & Phone in the General areas of the 6, 10, 15, 20, 40 and 80 meter bands (Repeater & Echolink on the K8SRR echo link node for a certificate) and anything else we can get working. Club Call Sign **K8BF** for a certificate. Other participating stations will be using their own callsign/FYAO, or calling "CQ FYAO" (only stations at the Freeze Your Acorns Off event should use the /FYAO designator). Yes, we'll be braving the cold snowy weather of North Eastern Ohio to set up QRP stations using portable power and antennas.



A beautiful color (suitable for framing) 8" x 10" certificate is available if you contact K8BF and send your **QSL with a large SASE** to the club call trustee:

Amy Leggiero, KD8SKL - 6229 Gladys St Unit B - Ravenna, OH 44266

So, from the comfort of your warm radio shack - give us a contact while we're out freezing. We'll need all the contacts we can make to help keep us warm. Your support will be very much appreciated!



Check PCARS out on the web at: www.portcars.org
Questions? Contact Chuck, W8PT at chuckw8pt@gmail.com



~ Amateur Radio Instruction Class ~

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

is sponsoring an Amateur Radio **General Class** course

that will enable *You* to upgrade

Your FCC license to

General Class



When:

Wednesday evening 7:00 p.m. – 9:00 p.m.
February 5, 2020 through March 25, 2020
8 weeks. Official Amateur Radio License testing
will be held at the end of the course (March 25th).

Where:

At the **PCARS Club Site**
Radio Room located in the Dietrich Building
705 Oakwood Street in Ravenna

Registration: First night of class

Cost:

\$25.00 Registration fee.

(No Registration Fee for PCARS Members)

\$33 Text – “General Class License Manual”

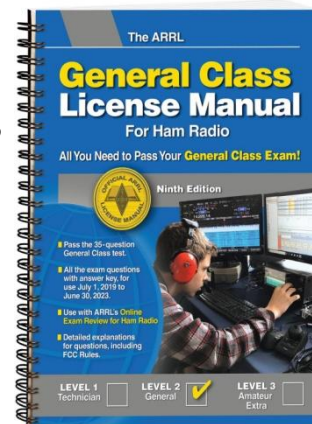
(text may be purchased first night of class)

Information:

Contact Jim Wilson, AC8NT

e-mail at: jawilson@j3solutions.com

phone at: **330-342-8149**



As a licensed **General Class Radio Operator** you will be able to

- **Contact other ham radio operators on more frequencies around the world**
- **Serve your community – ham radio operators are the critical communication link during disasters and emergencies - local, county, state and world-wide**
- **Have a LOT of fun on-the-air**

THERE WILL BE A FIVE STUDENT MINIMUM (or no class will be held)

Contact Jim Wilson, AC8NT to make your reservation NOW

Jim Wilson - AC8NT, at jawilson@j3solutions.com or by phone at 330-342-8149

Thanks & 73



Parky, KB8UUZ
PCARS Newsletter Editor



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 with plenty of activities. So chip in and send your report in to keep this newsletter great for 2020 and beyond. **To all a very merry Christmas and a prosperous New Year. May you have great health, and more Fun with ham radio in 2020.**

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

WB8LCD, AC8QG, KB8UUZ, KE8EGF, AC8NT, N8SY, N1IXF, KD8MQ, W8KNO, W2LJ, KA8TOA, WA8AR, G7VJR, K3LR, W8PT, KB8AMZ, WA8TSI, NOAA/NASA, The DRIVE, 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 WAS, VUCC, WAC	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	KD8SKL	Amy Leggiero
	K8BF QSL Manager	KD8SKL	Amy Leggiero
	Membership Chairman		
	Net Control Manager	KA8TOA	Greg Ash
	Net Night - Club Manager	WB8LCD	Tom Sly
~ Meetings & Net ~ 2nd Monday of each month. 7pm Thursday night Club Net at 8 pm on 146.895	Newsletter Editor	KB8UUZ	Tom Parkinson
	OSPOTA Chairman	KB8UUZ	Tom Parkinson
	Public Information Officer		
	Secretary		
	Tech, Gen & Extra Class Manager	AC8NT	Jim Wilson
Webmasters	Volunteer Examiner Liaison	KB8UUZ	Tom Parkinson
		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
W8EZT	Frank Tompkins
AC8NT	Jim Wilson
K8MSH	Mark Haverstock
KA8TOA	Greg Ash
W8PT	Chuck Patellis
AC8QG	Nick Wagner
N8FUM	Dan Torchia
W8GWI	Dave Seckel



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 - First Place 2012, 2013, 2017, 2018, 2019. ARRL Great Lakes Division Newsletter - Second Place 2013 - First Place in the 2017.** 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
705 Oakwood Street - Box 12
Ravenna, OH 44266 USA



NLC

