



The **RADIOGRAM**

When All Else Fails ~ Amateur Radio Works

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

February 2017 - Volume 12 Number 2

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In This Issue -



12th Annual FYAO

Broadcasting Amplifiers



Top 100 Most Wanted



CLUBLOG



PCARS K8BF

The Club that puts the FUN in Ham Radio!





Feature Articles	
From the PCARS President	3
From the PCARS Vice President	4
CIA Declassifies Documents about Amateur Radio	5
Replay for Kids	6
FYAO	8
On the Air - NA QSO Party 2017	9
It Never Hurts to Admit...	10
Seriously Collecting Broadcasting's Big Iron	12
A Great Build Day - WSPR	16
Single Side Band Communications	18
Amateur Radio Parity Act of 2017 - H.R. 555	20
Club Log Top 100 Wanted List for North America	25
Dues are Over Due	27
Spring Cleaning at the Club Site - FREE STUFF	28
The Bands Went Dead	30
Trump Promises Greatest Propagation Ever	31
Mark Your Calendars	
Schedule of Events	5
Contest Calendar	9
Net Info & NCS Schedule	11
VE Test Sessions	11
Hamfest Calendar	26
Meetings, PCARS	34
Important Days This Month	38
Regular Departments	
Patches & Stickers, PCARS	16
EmComm	17
YouTube - PCARS	19
Charlie the Tuner's HF High-Lites	21
Happy Birthday	26
Digital SIG	27
Paper Chase	29
Swap-N-Shop	32
Member Ham License Plates Wanted	33
Yahoo Group - PCARS	33
Pictures from the Last PCARS Meeting	35
Finals	
Thanks & 73	39
Membership Application - New or Re-New	40
Freeze Your Acorns Off flier	41
PARF Dayton Bus Trip Information	43
Club Information and Fine Print	44



From the President

Rick, K8CAV
PCARS President



I want to touch on a few items this month and I'll start with our meeting place, The American Legion Post 496. Post 496 has had some issues to deal with and for a while it looked like we might have to look for another place to meet. Fortunately, they are dealing with their problems and they remain committed to providing us with a meeting space, and food and beverage service. The menu has been pared down to simplify things in their kitchen but the food is still pretty good and the prices can't be beat. The area the Legion lets us use for our meetings is great and I'm happy we'll be able to continue to meet there.

At the Net Night at the Club site event last Thursday Russ NR8W walked in and immediately said he had to get SPF lotion because it was so bright in the Social Bay with the lights replaced he was afraid of sunburn. And when Mike KB8TUY went to the cabinets in the storage bay to get popcorn he found he didn't need a flashlight to bump his way around. These and many other improvements to the club site and the radio room are due to the large amount of time and effort our Vice President Jim AC8NT has put in getting things fixed and cleaned up. We all owe Jim and the folks he's corralled to help him a huge thank you for all the work. Moving forward we have other projects coming up that we're going to tackle such as the new Echo-link Node, finishing the lab, and more cleanup and organization. These projects would move a lot faster if we had your help. Right now, much of this is being done during the day as Jim is retired so I'd like to ask those of you who are retired as well to consider getting your name to Jim or myself if you can help out during the day with some of these projects. Drop a note to ac8nt@portcars.org or k8cav@portcars.org if you can help. When a project comes up we'll let you know so that if you can help you will know what's coming up.

The Replay for Kids event was a complete success. It was heartening to see the number of PCARS members that turned out to help with this project. We had enough volunteers to fill the tables in both the radio room and the social bay with tools, toys, and volunteers to repair them. We're planning on organizing another such event again so if you want to be a part of repairing toys for kids with disabilities, keep an eye out for the announcement and let us know you'll help.

The PCARS Digital Nets are back! Special thanks to Andrew KE8BWA for volunteering to reestablish these nets. The first net kicked off on 80 meters and was a digital only net, and Andrew plans on doing the next one on the K8IV repeater. Keep an eye out for qst e-mail reminders, and as soon as we have a regular schedule set up we'll get it on the club calendar. This is a great place to learn or maintain your digital skills and I know Andrew would love to see you check in.

The annual Freeze Your Acorns Off contest is coming up soon and maybe – just maybe there won't be as much freezing as in past years. Freezing or not, it's going to be a fun Saturday so make plans to come out and operate or at least join us for a fun time. There's a cook-off contest as well which promises some really good eats and it would be a shame if you missed it!

As always I'll close with a thank-you to all of you who participate with PCARS to make it a truly enjoyable club to belong to.

From the Vice President

Jim, AC8NT
PCARS Vice President



This month has been very busy. I have been building a lot of projects for my shack including construction of a new magnetic loop antenna with a new tuner design. I also completed a Raspberry PI WSPR transmitter and receiver that has been great fun. Its completion is making my digital setup almost complete. I have also had great fun at the club site.

Work at the Club Site

1. Lighting repairs - We have repaired the failed lights in our storage and training bay. Let there be light.
2. Filters and Triplexer - New band filters and a new triplexer have been installed to improve operations and give us a little better edge in contesting.
3. Cleaning- More “stuff” has been sorted and eliminated that is not necessary.
4. Computer Upgrades - It turned out our new computers needed a disk upgrade to allow for Windows 10 upgrades and the installation of more programs. Thanks to Steve K8SRR for helping getting this done.

Replay for Kids

At this event we helped repair and modify toys for special kids. More on this elsewhere in the newsletter. I just wanted to say we had a terrific time and we are planning to do more of this word in the future. If you want to help a great cause and have a great time, let us know.

Also happening next month February 25th we will be building a nifty QRP tuner. I look forward to these events and hope more of you will attend and share the fun.

If you have any ideas for build activities, please let me know. We have built electronics kits, antennas, power pole blocks and will take on any build we find interesting to the group.

Upcoming events

1. **February 11** is Freeze Your Acorns Off. We all hope for the weather to be workable.
2. **February 18** is a Get-On-The-Air-Day at the club. Spread the word that we have great equipment available for anyone licensed to use it. We also provide help in learning how to use the equipment. If you are a Tech and would like to try HF we can make that happen. Also, if you have any questions, it is a great time to get them answered.
3. **February 25** we have a Build Day where we will be building a QRP tuner. It is a great project for small QRP setups.
4. At the club meeting **February 13**, we will have an interview with the team at QRP-Labs where they will discuss their projects and share some of their QRP experiences.



Schedule of Events

On the calendar for upcoming meetings and activities are:

- January 31st - Club Site Clean Out - 7 pm until 8:30 pm - see notice on page 28
- February 2nd - Club Site Clean Out - 7 pm until 8:30 pm - see notice on page 28
- February 4th - VE Testing at the Club Site - 10 am - Walk-Ins Welcome
- February 11th - 12th Annual **Freeze Your Acorns Off** day - see flier in this newsletter
- February 13th - PCARS Meeting - 7 pm at the Kent American Legion - QRP-Labs Interview
- February 18th - Get On The Air Day at the Club Site - 9 am to noon
- February 25th - QRP Tuner **Build** project at the Club Site
- March 1st - 7 pm - End of Tech Class VE Test Session at the PCARS Club Site - Walk-ins Welcome
- March 13th - PCARS Meeting - 7 pm at the Kent American Legion

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



- First Tuesday - **Digital** - Moderator: K8CAV
- Second Tuesday - **QRP/CW** - Moderator: WB8LCD
- Third Tuesday - **Antenna** - Moderator: WA8AR
- Fourth Tuesday - **DX & Contest** - Moderator: W8PT
- Fifth Tuesday - **Linux for Hams** - Moderator: KB8AMZ

Fourth Thursday - **Net Night at the club site - 6:30 pm**



CIA Declassified Documents about Amateur Radio

From the ARRL



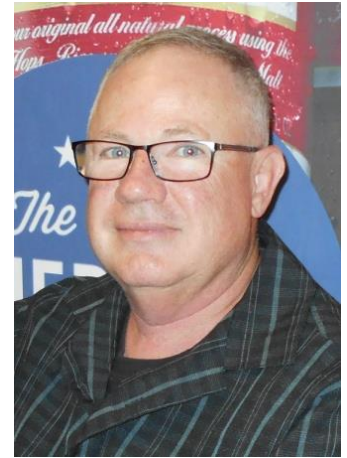
Central Intelligence Agency (CIA - <https://www.cia.gov/index.html>) reports about Amateur Radio in the former Soviet Union (including the Baltic States) and Warsaw Pact member countries have been declassified to a new searchable online database (<https://www.cia.gov/library/readingroom/search/site/20ham%20radio>), the CIA Freedom of Information Act (FOIA) Electronic Reading Room.

Documents include translations and assessments of Amateur Radio clubs, including Soviet DOSAAF (Volunteer Society for Cooperation with the Army, Aviation, and Fleet) groups; training; monitoring Sputniks; technology and equipment, and even QSL cards.

All documents have been declassified and occasionally “sanitized” and made available to the public for the first time in this archive. Some of these documents were only available previously in a closed system at the US National Archives (<https://www.archives.gov/>). - Thanks to Southgate Amateur Radio News via Andy Thomas, G0SFJ

Replay For Kids

Tom, WB8LCD



On Saturday, January 14, 2017, a little over a dozen PCARS members met at the PCARS Club Site to start the new year off with a public service project. Thanks to Rick, KD8WCK, PCARS members were introduced to the RePlay for Kids program. (For more information on RePlay for Kids, see last months newsletter.) As PCARS members arrived, the club site had already been transformed into a toy repair workshop. About 10-12 workstations were set up including soldering/un-soldering tools, meters, hand tools, parts and anything else that might be needed.

At 10:00 sharp, we were told that our mission was to repair as many toys as possible in a two hour period. Most of the toys that needed repair were toys that had already been modified, but either didn't work after the mods were done, or broke during use. The toys were primarily the type that were “characters” (like Sesame St. characters) that had a button hidden in them somewhere that would animate them with movements and sounds. The major modification for most of these toys was to open them up and add an outboard jack that could have a switch (like the old Staples “Easy” button) plugged into it so that kids who did not have the dexterity to find and activate the internal switch could easily hit the outboard switch to animate the toy. After the repair, the toy needed to be closed up and look like it did before the modification.



Some were pretty simple and obvious – like a broken wire. Some were a little tougher, like a bad solder joint, and some were even worse, such as a switch jack that was added into the wrong wires in the toy! Some of these things had to be opened up enough to get deep inside. In the end, PCARS members showed that their ingenuity and electrical/mechanical knowledge was up to the task! Many toys were repaired and put back ready for use. Hopefully they will enrich the lives of the children that get to play with them.

As “Amateur Radio Operators” we have at our disposal literally Billions of dollars worth of radio spectrum. Even though this was not a radio related project, it is the type of service that is expected of us to earn our privilege to use that spectrum. Through our participation in our hobby we have the opportunity to learn many things that others don't understand. That knowledge makes us valuable to the community and this was a fantastic way to help others who can benefit from our expertise. Look for a RePlay for Kids repeat somewhere in the not too distant future! **And “Thank You” to all who participated.**

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



RePlay for Kids



FYAO Coming Up Soon



Chuck, W8PT

This is simply a reminder to all those PCARS members and friends of PCARS who will be braving the elements this February during our annual QRP event.



February 11, 2017, is not that far off. I want to make sure that those of you who are planning to set up a station outdoors during our balmy February WX, are getting their ducks (or should I say penguins) in a row.

Yes, it's the **Portage County Amateur Radio Service's Twelfth Annual "Freeze Your Acorns Off" (FYAO) Special QRP Event.**

As in years past, it will be held at Fred Fuller Park in Kent, OH, on Saturday, February 11, 2017. Set up time begins at 9 AM and the event will start promptly at 10 AM and go until 4 PM EST.

FREEZE YOUR ACORNS OFF PCARS QRP EVENT

IT'S THE 12TH ANNUAL FYAO

- YOU CAN SET UP A QRP STATION
- COME OUT AND SUPPORT THE OTHER STATION OPERATORS AS THEY BRAVE THE ELEMENTS
- SIGN IN AT EACH OF THE STATIONS YOU VISIT TO EARN THEM POINTS
- FEED THE BEARS - BRING A DISH TO ENTER THE BEST DISH CONTEST
- DONATE CHIPS, COOKIES, SODAS

SEE THE PCARS NEWSLETTER FOR MORE DETAILS

Please contact Chuck, W8PT to reserve your space or ask any questions!



FYAO just won't be the same if you are not there!

John KD8MQ might share his chili with you!



We will be active on CW, Digital & Phone in the 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.

We will also be having our **Best Recipe Cook-Off** as we did last year. So those of you who think they have the best chili, sloppy joe's, mac 'n cheese or casserole are urged to enter said dish into the contest to see if they can win. A blind tasting by three very well qualified judges will determine the winner and two runners-up.

So come on out and join in the festivities. Have fellowship with your fellow members and partake in the good food. Let's start 2017 off with a lot of **Big Fun!**

FEBRUARY 11

FRED FULLER PARK KENT, OHIO



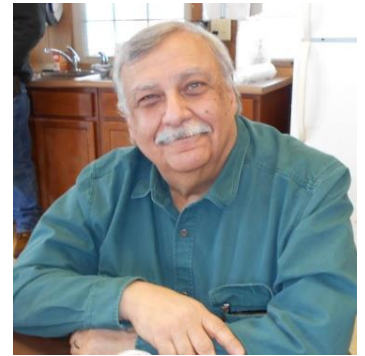
Contest Calendar

February 2017		
Contest Name	Click for more info	Date - Times
Vermont QSO Party	Link	0000Z, Feb 4 to 2400Z, Feb 5
10-10 Int. Winter Contest, SSB	Link	0001Z, Feb 4 to 2359Z, Feb 5
Minnesota QSO Party	Link	1400Z-2400Z, Feb 4
12th Annual PCARS FYAO	Link	10:00 am to 4:00 pm ET, Feb 11
CQ WW RTTY WPX Contest	Link	0000Z, Feb 11 to 2400Z, Feb 12
New Hampshire QSO Party	Link	1600Z, Feb 11 to 2200Z, Feb 12
ARRL Inter. DX Contest, CW	Link	0000Z, Feb 18 to 2400Z, Feb 19
CQ 160-Meter Contest, SSB	Link	2200Z, Feb 24 to 2159Z, Feb 26
North American QSO Party, RTTY	Link	1800Z, Feb 25 to 0600Z, Feb 26

Google the Contest Name - Read the Rules & Have Fun. YES - There are **MANY** More Contests out there - Check the Internet

On The Air - NA QSO Party 2017

Chuck, W8PT



First of all, I want to thank all who came out to operate and those who came to support our efforts in this contest. This was the first time that K8BF took part in this contest and it was certainly a learning experience.

Band conditions were not great but we were able to make 169 contacts. Our class was Multi-2 which meant that we had more than one operator and therefore, we were allowed to have two operating position going at any one time. We chose 20m and 40m as the two most likely bands that would give us the biggest bang for the buck.

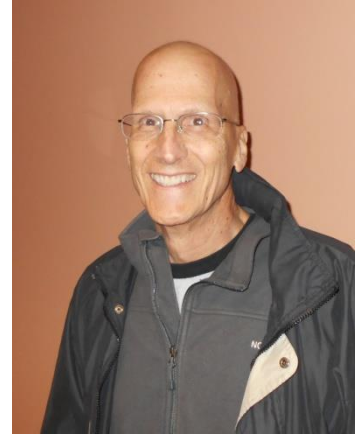


Looking at other scores that were reported, I feel we made the correct decision. We ended up with a score of 8400 points for our effort. Not a world turner but an acceptable showing for our first outing. We will review our performance and decide if we will participate in next year's contest. But I must say, the contest was fun to work and it was at a pace that beginners could have enjoyed also. For those of you who would like to try your hand at contesting, keep this in mind.

I'd like to thank the following ops who, along with yours truly, made the effort: W8KNO, K8MSH, KB8TUY, and KA8TOA. I'd also like to thank Parky, KB8UUZ for doing all the number crunching and putting together and submitting the log.

It Never Hurts to Admit....

Jim, KC8PD



My hunch is that in the amateur radio community there a lot of hams like myself who may have learned plenty of electronic and radio theory to get licensed and to upgrade but never really mastered the stuff. It reminds me of foreign language classes in high school: you learned enough to get past the exams but could never actually speak the language and remember little of it now. Comprene vous?

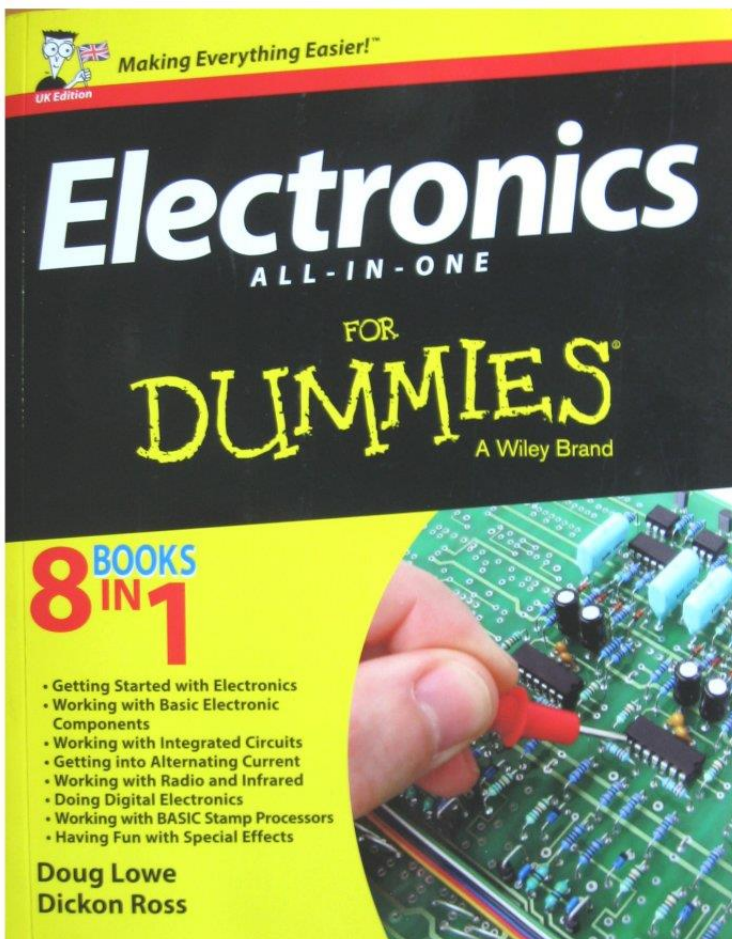
When we can, we will dig out the ARRL Handbook and look for an explanation of the technical stuff that we did not understand when we read an article in QST or, even worse, just nod along at a club or special interest group meeting when the discussion is flying over our heads.

Life is just too short to nail all this stuff down and wouldn't it be great if there was some handy reference that could provide us with a refresher course without having to wade through the Amateur Extra Class manual again?

So there I was at the recent DX Engineering Open House browsing through the sale items when I stumble across the twenty dollar answer to my question. Yep, there it was: *Electronics for Dummies*.

In easy to read layman's terms it covers a lot of ground: electronic theory and components, AC basics, radio applications and integrated circuits, to name a few of the topics. A simplified version of a lot of what I had to learn to licensed? Sure, and that is the beauty of it.

This is the one electronics/radio book that I have purchased that will spend less time on the shelf and more time in my hands. And I am not too proud to admit it.



PCARS Thursday Net Control

Tom, WB8LCD
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!

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



February	
2	KE8BWA
9	K8IV
16	KB8UHN
23	AC8NT

March	
2	WB8LCD
9	K8CAV
16	N8QE
23	KB8UUZ
30	WB2DFC

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: WB8LCD@portcars.org Everyone who is a club member is welcome to have a turn!

PCARS VE Test Sessions

Robert, N8RLG
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.

February 4th - April 1st - June 3rd - August 5th - October 7th - December 2nd
Plus: March 1st - 7 pm at the end of the Technician Class - June 24th 4 pm at the Field Day site



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 any 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 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 copy of your expired Amateur Radio License - you must take and pass Element 2 to re-instate your license.



Seriously Collecting Broadcasting's Big Iron

James E. O'Neal, K4XAR



Some of us collect postage stamps; others coins or perhaps matchbooks. There are a few individuals who collect vacuum tubes. However, one Ohioan has set a somewhat loftier goal: amassing a collection of broadcast-type radio transmitters.

Gerry Moersdorf began rounding up such transmitters more than 15 years ago, uprooting them from their former workspaces and hauling them back to a large warehouse-type building in a Columbus, Ohio, suburb.



Gerry Moersdorf shows off the oldest item in his large collection of broadcast transmitters. The Western Electric 443A1 1 kW Doherty dates to the 1940s. Moersdorf notes that it tunes between 550 kHz and 2,750 kHz, allowing it to be used in the old police

businesses before devoting his energies to rescuing broadcast rigs.

Moersdorf is quite selective, though; not just any broadcast transmitter will do. He's especially partial to representative examples from the likes of Collins, Gates, RCA and Western Electric — companies that once supplied transmitters for the majority of U.S. radio stations — and they must be vacuum tube-powered “big iron.” He has no interest whatsoever in the compact solid-state high-efficiency pipsqueaks from the last several decades.

“My motto is never operate a transmitter that can't kill you if it falls over,” said Moersdorf, a former software engineer, who created and sold off a couple of successful computer-related



Moersdorf's collection contains only one non-broadcast transmitter, this Collins AN/FRT-24 1 kW base station transmitter built for the U.S. Navy. It tunes 2–30 MHz and was constructed in the mid-1960s.

THE PATH FROM COMPUTERS TO BIG IRON



A portion of the collection's 15-transmitter lineup. The 2.5 kW CCA “cow killer” is at the extreme left.

“My background was in digital electronics and software. My first company built a DEC-to-IBM interconnect back in the days when minicomputers were as big as a house. My second company built equipment used for telemetry. I started it in 1980 and spent 20 years building it up to the point where we had 380 employees, but my real interest was in radio, so I sold it about 10 years ago.”

Moersdorf has winnowed his collection down from a high of about 30 transmitters to a more manageable (and easily accommodated) 15, explaining that one factor in the decision was the lack of three-phase power when he recently relocated his collection and manufacturing business to Delaware, Ohio.

Asked about why he started collecting these behemoths from radio's heyday, Moersdorf responded: “It's a labor of love. I just couldn't stand to see them wind up in dumpsters. The earliest transmitter I have is a 1940s

Western Electric, and it's an amazing piece of engineering. Seeing something like this pushed into a dumpster is a horror."

Actually, rescuing electronic items from recyclers and landfills is in Moersdorf's blood and goes back to his childhood years.

"I grew up in New Jersey, and we lived near a dump — actually in Jersey, everybody lived near a dump inherit— and as kids, we used to go down to the dump to look for 'All American Fives' [five-tube AC/DC radio receivers] people had thrown out. We'd tie them to our bicycle baskets by the line cords — we might have had 50 at a time — and then we'd go to the local pharmacy with the self-service tube tester and test the tubes. We'd throw the duds out and put the working tubes into maybe 10 radios out of the 50 — actually, we never bought a single tube from the guy that owned the pharmacy. My mother used to give the radios away to neighbors."

STILL ON THE AIR

Asked whether these massive yesteryear rulers of the AM band were just for show, Moersdorf, who is a ham radio operator, was quick to show off the mods he'd made to allow the rigs to tune the amateur radio bands.

"The transmitters that I've kept, I've converted for operation on the 160-, 75- and 40-meter [amateur] bands," he said. "The amateur radio world's AM community is the best community. They have a lot of knowledge and love for transmitters like these, and they don't operate plastic radios."

Judging from the number of examples in the collection, Moersdorf's favorite broadcast transmitter line appears to be the Collins 20 V 1 kW series from the 1950s and beyond. It used 4-400 tetrodes in the modulator and RF output sections, and during its production lifespan developed a reputation for high reliability.

"I have two Collins 20V-2s and three 20V-3s," said Moersdorf. "One of these is [permanently] located on a West Virginia mountaintop. I'm a member of this group of amateur radio guys who go camping four or five times a year, and we have this campsite on a 3,000-foot mountain there. With the help of a bulldozer, we hauled a shipboard container up there to use as our radio station and then hauled up a 20V-3. We have two diesel generators up there to power it."

Asked about "extremes" in the collection, Moersdorf singled out two units. "The highest-power one is a CCA AM2500D which was made in the 1970s," he said. "It uses four 4-1000 tubes and can make 7,000 watts. The heaviest is a Collins 20T 1 kW model. With it, we like to talk about pounds-per-watt, not watts-per-pound. It came out in 1946 and weighs 5,700 pounds. It's built like an armored battleship."

Moersdorf has been known to travel long distances, if there's a particularly desirable transmitter that needs reprieve from the dumpster.

"I once went to Nevada to pick up an RCA BTA-1," he said. "We have a big truck [18-wheeler] we use for this. I got my commercial driver's license just so I could go out and pick up transmitters in the truck."



Not all of Moersdorf's transmitters are kept "stock," as exemplified by this now one-of-a-kind Gates BC-1F 1 kW model from the early 1950s. (Moersdorf has another with Parker Gates' factory paint job.)

SERIOUS AUDIO AMPLIFICATION

Moersdorf noted that the truck had also served as a mobile showroom for another of his enterprises, Audio Power Labs, which manufactured high-end audio amplifiers.

“The audio business came about because of my love of tubes and the sound of tube amplifiers,” said Moersdorf. “We built two amplifier models, a 150-watt monoblock that used the 833 [triode]. We also made a 50-watt that was based on the 572.”



Moersdorf and his “Big Bertha” 1946 Collins 20T. It was designed for 1 kW operation and weighs in at a whopping 5,700 pounds. (That’s less than 0.2 of a watt per pound.)

“They were more for our age [translation: the older demographic], and the market was quite limited.” Moersdorf manufactured the tube amps for about five years before discontinuing production in 2016. Part of the problem in attracting buyers for high-end audio, he said, is the greying of America. “When you try to map out the intersection between people who are interested in high-end audio and those who are patient enough to sit in a room and seriously listen, you have a very small Venn diagram. My kids have the attention span of a gnat. They’re not going to sit around and listen; they’d rather just stream some audio off their phones.”

He now limits his manufacturing business to a much smaller and less-expensive device for monitoring AC power quality.

BLAME THIS ONE ON THE COW

One of Moersdorf’s most unusual transactions was a package deal consisting of a pair of 5 kW CCA transmitters and a 500-watt Raytheon rig.

“I actually bought an entire 5 kW radio station to get these,” recounted Moersdorf. “This was in southern Kentucky. The reason that I got to buy it was that the station had been killed by a cow. It had its sticks out in a cow field and one of the cows nosed its way into a tuning house and managed to blow up the transmitter. The guy running the station wanted to get back on the air and bought the 500-Watt Raytheon and got the FCC to allow him to temporarily run at lower power. He then found another 5 kW CCA and took parts out to replace

Moersdorf observed that his audio products weren’t intended for those satisfied with an MP3 player and earbuds. While they were in production, a pair of the 833 monoblocks would have set you back a cool \$140,000, and the “low-end” 572 model sported a \$10,000 price tag for a single unit.

“We had one with an outrageous price point and one at a semi-outrageous price point,” said Moersdorf, noting that in addition to the six-figure outlay for the 833 monoblocks, the consumer likely would have had to pony up an additional sum for an electrical contractor. “You’d need two 20-amp dedicated outlets to power them.”

Asked who would be in the market for such amps, Moersdorf answered “eclectic people.”



Two of Moersdorf’s set of five Collins 20V Series of 1 kW rigs. All have been modified for use on the amateur radio 40-, 75- and 160-meter bands.

the burned-up parts in the first transmitter. However, these got burned-up too. He petitioned the FCC to allow [permanent] 500-Watt operation for something like four years, but wasn't successful and finally gave up and went off the air, as he had an FM station too.

“The story is that the cow killed the AM station, but in the end, the station apparently killed the cow also. Two weeks after it blew up the transmitter, they found it dead in the field. I went in with a Gradall and removed all three transmitters.”

Moersdorf admits that restoring vintage transmitters isn't always easy due to a lack of parts, and working on them involves a number of dangers — high voltage, mercury vapor rectifiers, asbestos, PCBs and X-ray radiation — but he really has no use for modern machines.

“I only collect transmitters with glowing objects in them — tubes!”



Until fairly recently, Moersdorf's Audio Power Labs operation produced high-end high-fidelity amplifiers, including this 150-watt beauty. It was inspired by the 833 graphite anode transmitter triode. A pair of the monoblock amps cost \$140,000. If you want a set of your own, you'll need to act quickly as only a few remain in stock.

While Moersdorf doesn't maintain his collection of transmitters as a museum, visitors are always welcome. Contact him via email (gerry@moersdorf.com) to set up an appointment.

Additional photos of Moersdorf's collection are available online through the QRZ amateur radio website, www.qrz.com. After accessing the site, search for his amateur radio call sign KC8ZUL.



KC8ZUL

Reprinted by PCARS with permission from the Author, James O'Neil and Radio World. James O'Neal is a retired broadcast engineer who worked in that field for some 37 years before joining Radio World's sister publication, TV Technology, to serve as its technology editor for nearly a decade. He is a regular contributor to both publications.

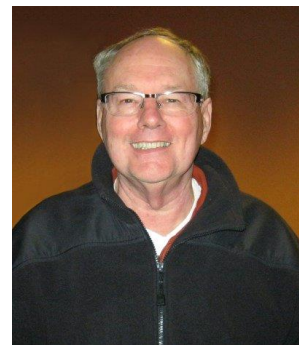
Original article is from **Radio World**:

<http://www.radioworld.com/columns-and-views/0004/seriously-collecting-broadcastings-big-iron/339027>



A Great Build Day - WSPR

Jim, AC8NT



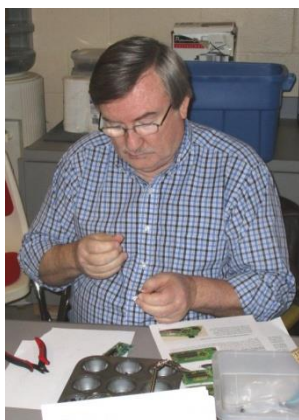
We had a great build day with our fellow hams building the QRP-Labs Ultimate 3S WSPR transmitter. Build days are a great way to learn new construction techniques and share learning experiences.



We all make mistakes once in a while and when these are made in a group everyone learns. We had a few mistakes made and everyone learned a lot.

Some wound their first toroid, a real skill to learn.

These experiences are great, especially when we have a great time doing it.



Way too busy to even look at the camera!!!

PCARS Patches & Stickers

New 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: Amy, KD8SKL or e-mail her at: KD8SKL@portcars.org



Jim, KC8PD
Radio Officer, Portage County
Communications Unit/RACES



Over the past few years, this column has discussed the increasing use of soundcard digital modes for emergency communications. Since then, local digital activity has picked up substantially both on the 146.895 repeater and on simplex frequencies. I am sure there are some local hams who wondered just what the heck they were hearing if they tuned across those signals.

The Portage County EMA's Communications Unit has incorporated digital operations for traffic handling in its training nets. The PCARS Digital Operations Special Interest Group meets on the first Tuesday of each month at 1900 hours at the club site. The meetings provide the participants the chance to share information about digital ops and to receive assistance in sorting out any operational problems that they had run into. PCARS club president, Rick, K8CAV, does a great job of moderating these meetings and providing interesting topics for discussion.



The PCARS Digital Net has returned on Wednesdays at 1930 hours with Andrew, KE8BWA handling net control duties. A big PCARS "thank you" to Andrew for his efforts! The plan is for the net to be held every other Wednesday at the same time with the nets alternating between VHF and HF operations. It provides a terrific opportunity for everyone to learn more about the fun they can have using the digital modes.

You can also participate in the Ohio Digital Emergency Net (OHDEN) on Tuesdays at 1945 hours (Eastern) in the vicinity of 3.585 Mhz. The net generally operates using OLIVIA 8/500 and is open to all hams.

The new download site for fldigi software (the heart and soul of the Narrow Band Emergency Messaging Software) including fldigi, flwrap, flrig and flmsg, among others, is: <https://sourceforge.net/projects/fldigi/files/>.

Skywarn training by the National Weather Service is underway in Northeast Ohio. This year the training is being sponsored by the Portage County Office of Homeland Security and Emergency Management and its Communications Unit. It will be held at 6:00 p.m. on Monday, March 20th at the Maplewood Career Center, 7075 State Route 88, in Ravenna.

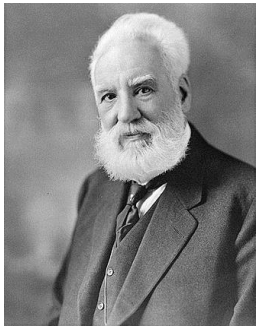
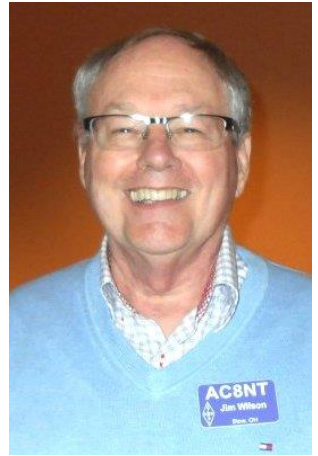


The training is open to the general public, you do not have to be an amateur radio operator to attend. The information is useful for everyone. Spring weather will, hopefully, soon be here bringing with it the risk of rain and snow melt that can lead to flooding. Get trained and be prepared.



Single Side Band Communications

Jim, AC8NT



Alexander Bell

January 25 was the anniversary the first transcontinental telephone call between Alexander Graham Bell in New York and Thomas Watson in San Francisco. That event and the installation of long distance wires between Albany New York and New York city showed Bell he had a big problem. The solution of that problem would also prove to be valuable to amateur radio years later. The solution was the development of single sideband communications. I thought it might be interesting to hams to give a short review of its development.

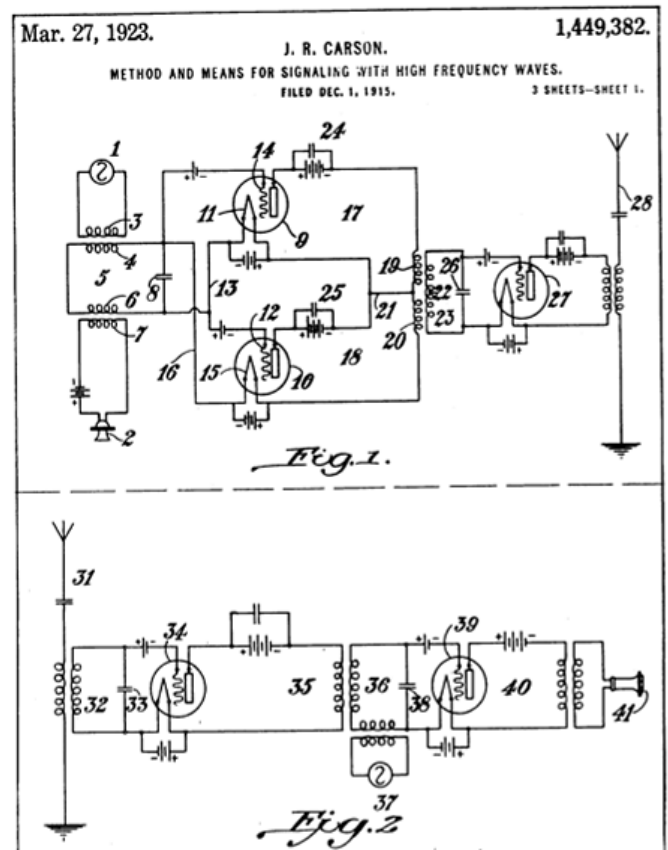


Thomas Watson

Significant development of SSB occurred at the Bell System (before Bell Labs existed) about 1913. Here Bell was working on transmitting more telephone conversations between two points. Why? The state of the art at the time was one conversation per wire pair. Considering thousands of people wanted to make calls between cities, two wires per call would require more wires than poles could hold. Some way had to be found to get more conversations over a pair of wires. At this time Campbell and Colpitts (yes the oscillator guy) were working on the spectrum of voice waves and the theory of modulation. They were trying to develop a channelized system that could carry more than one conversation over a pair of wires.

In 1914 a young physicist Carl Englund (a 19 year old “geek”) using trigonometric analysis showed that sidebands existed mathematically. Considering there were many “spark gap” transmitters in operation, he was viewed with considerable skepticism. However, several engineers took a serious look at his work. One of these was H. Arnold.

H. Arnold at the Navy Radio Station in Arlington Virginia in 1915 suggested that the receiving antenna at Arlington be tuned to one side of the carrier frequency in order to pass just one of the Englund’s sidebands. This attenuated the carrier and the other sideband enough to demonstrate that all the voice information was present in just the side band. Proof that the math worked. Note: The next time you complain about tuning an antenna for 20 meters remember that this experiment was done at 57 kHz and was tuned within 2000 Hz by cutting long wire antennas. That would have been fun.



John Carson filed a patent (1,449,382) in England on December 1, 1915 that claimed both suppression of one sideband and carrier suppression using thermionic vacuum tubes. This was obviously easier than tuning

antennas. I have attached a copy of Carson's circuit. For all young hams, those funny circles with squiggly lines in them are vacuum tubes. Again, the focus of side band technology was on the development of trunk systems for Bell. In 1918 Western Electric Company implemented a side band system for trunks called Type A. This doubled the number of conversations over each pair. Yes, two conversations per pair. By the way Carson was not granted a patent in the US until 1923. Mr. Bell tied him up in court.

It wasn't until 1922 that single sideband was seriously put to work in radio. A paper by Espenschied started significant development of single sideband in radio. At the same time the invention of a copper-to-glass seal was developed that allowed water cooled vacuum tubes to be built. This gave radio some real power (first units produced 75-200 watts). Any of you have water running to your rig? The first single sideband transoceanic telephone communication was completed between London England and Rocky Point Long Island in January of 1923 and it was one way (US to England). It wasn't until 1927 that radio telephone service was available. It cost **\$75 (about \$2300 in today's dollars) for three minutes.**

Unlike computers today, the use of SSB in radio did not exactly leap along. In 1933 QST published a series of articles on amateur radio SSB. In the mid 1930's hams started to experiment with the technology. Work by W6QYT at Stanford in 1947 on 75 and 20 meters provided a real start to our use of SSB. The January 1948 issue of QST discussed W6QYT's work including techniques for tuning the BFO to achieve an intelligible received signal. How many remember using a BFO to demodulate SSB? It is interesting to note that it was not until 1957 that the Airforce switched to SSB for communications at the direction of General Curtis LeMay.



A Collins KWM-1, an early Amateur Radio transceiver that featured SSB voice capability

Also interesting is a letter that was written to the ARRL published in a 1963 issue that said "get on the ball and ask the FCC to give the a.m. boys six months to go SSB". That as you all know didn't happen.

It is hard to believe that our most common mode of voice communication as hams was actually the solution to a telephone problem. SSB started in 1913 seven years before amateur radio operator Frank Davis convinced Westinghouse to create the first commercial AM radio station KDKA in November 1920. It is also noteworthy that SSB which has given us the ability to more efficiently use our bandwidth was developed only 18 years after Marconi's first radio message. When you ask engineers or hams when SSB was developed, they usually answer in the 1950's and have no idea it started at the phone company.

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.

https://www.youtube.com/channel/UCFVsDD_gwCLtTw-FPuBcYtA



Amateur Radio Parity Act of 2017 - H.R. 555

From the ARRL

Amateur Radio Parity Act Speeds to U.S. House Passage, Heads to U.S. Senate



Just 10 days after being introduced, the 2017 Amateur Radio Parity Act legislation, H.R. 555, passed the U.S. House of Representatives this week on unanimous consent under a suspension of House rules. The bill's language is identical to that of the 2015 measure, H.R. 1301, which won House approval late last summer after attracting 126 co-sponsors, but failed to clear the U.S. Senate last fall as the 114th Congress wound down. The new bill, again sponsored by Rep. Adam Kinzinger (R-IL), was introduced on January 13 with initial co-sponsorship by Rep. Joe Courtney (D-CT) and Rep. Greg Walden, W7EQI (R-OR), who chairs the influential House Committee on Energy and Commerce.

H.R. 555 can be found on the web at,
<https://www.congress.gov/bill/115th-congress/house-bill/555?r=27> .

"The grassroots effort of Amateur Radio operators across this nation in support of the Amateur Radio Parity Act has been remarkable, nothing like we have ever seen before," ARRL President Rick Roderick, K5UR, said. "To all hams, keep going! Now is the time to charge forward with that same momentum to the Senate. We can do it!" The bill arrives in the U.S. Senate with ample time in which to garner its approval through an education campaign.

"We're very encouraged by the speed with which this bill made it through the House. It's amazing that this happened," said ARRL Hudson Division Director Mike Lisenco, N2YBB, who has been at the forefront of the legislative initiative. "With the help of ARRL members, we believe we can get this done," Lisenco continued. "We came within a hair's breadth last time, with 110,000 e-mails to members of both houses of Congress, as well as letters and telephone calls. Member participation in this final push is critical."

H.R. 555 calls on the FCC to establish rules prohibiting the application of deed restrictions that preclude Amateur Radio communications on their face or as applied. Deed restrictions would have to impose the minimum practicable restriction on Amateur Radio communications to accomplish the lawful purposes of homeowners association seeking to enforce the restriction.

ARRL Legislation

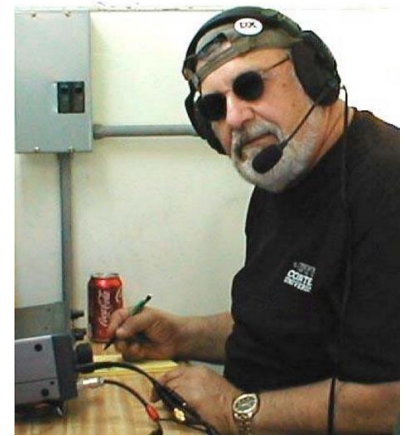
**The work continues
— HR 555**

**The Amateur Radio
Parity Act of 2017
has been reintroduced.**

The graphic features a large, stylized version of the HR 555 logo on the right side, set against a red and blue background with a subtle grid pattern. The text is arranged in a clear, bold layout on the left side.

Charlie the Tuner's HF High-Lites

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



Well, one month of 2017 is now gone and things are changing on the bands. Some say that the bands are dead while others are having fun working DX, working E skip on 6m, working Aurora, and taking note of the first sunspot of cycle 25. You heard me. Those in the know have said that they confirmed the first sunspot of a new cycle (25). How that will play out is anyone's guess but it is good news.

In the meantime, DX continues to be worked. The signals may not be as strong as they have been in the past year but if you are persistent, you can still snag some very good DX. So let's take a look at what is scheduled for the next couple of months.

I continue to thank the Northern Ohio Amateur Radio Society, Northern Ohio DX Association, Ohio/Penn Packet cluster Network, AB5K & the AR TelNet Clusters Network, K1XN & GoList, NJ1Q & W1AW, NG3K & ADXO, W3UR & The Daily DX, N4AA & QRZ DX, W4DN, K8GI, K8YSE, W8GEX & 60m DX News, W9ILY, N0FCD, CO3JK, DL1SBF, DL7UXG & The DX News Letter, DxCoffee.com, DXNews.com, DX-World.Net, ES1CW, F5NQL, F6AJA & Les Nouvelles DX, I1JQJ/IK1ADH & 425 DX News, I2MQP & DX Italia News, IZ5HQB, OZ6OM & 50 MHz DX News, RSGB IOTA Web Site, Sixitalia Weekly, VA3RJ & ICPO, VHF-DX-Portal(MMMonVHF) and VU2DSI for the following DX information.

And as always, this report "could" contain "Pirate/SLIM" operations or more likely a "BUSTED CALLSIGN". As always, you never know, so..... - **"Work First Worry Later"**.

MOST WANTED UPDATED. The ClubLog announces its last 2016 "Most Wanted List". See: <http://secure.clublog.org/mostwanted.php> Top 10 most wanted from North America are:

#	Prefix	Entity Name
1	P5	DPRK (NORTH KOREA)
2	FT5/W	CROZET ISLAND
3	3Y/B	BOUVET ISLAND
4	BS7H	SCARBOROUGH REEF
5	BV9P	PRATAS ISLAND

#	Prefix	Entity Name
6	FT/G	GLORIOSO ISLAND
7	SV/A	MOUNT ATHOS
8	FT5/X	KERGUELEN ISLAND
9	EZ	TURKMENISTAN
10	ZS8	PRINCE EDWARD & MARION IS

3Y0Z BOUVET DXPEDITION (A Visit To DX Engineering/A Message From The 3Y0Z DXpedition Team)..... After noting that Bouvet Island is listed as #2 Most Wanted, start paying attention to the announcements from the DXpedition team. You can start by viewing the videos of our own Tim Duffy interviewing several members of the DXpedition when they visited DX Engineering. See an interview at <https://www.youtube.com/watch?v=WRhW83k5mk0>

On January 11, 2017, five of the 3Y0Z operators (K0IR, N9TK, W8HC, W0GJ, & WB9Z) and Chief Pilot, NV9L, met with Tim Duffy, K3LR, and 11 members of his DX Engineering staff. The chief topic of discussion was development of masts and antenna support hardware able to with-stand the winds and weather of Bouvet. The HF antennas and EME arrays need to be at a height where they can be effective and yet able to withstand

the harsh conditions of Bouvet. Working drawings were developed and the engineers at DX Engineering are now developing prototypes for testing. The group also considered how products developed for Bouvet might also serve unique needs of other radio amateurs. Visit the following Web page to see pictures of the meeting: <http://www.bouvetdx.org/news-and-updates>

A Message From the DXpedition Team -- Our Commitment to You -- A DXpedition to Bouvet is not to be taken lightly. Bouvet is a serious and dangerous place; demanding attention to safety, serious planning, physical and mental endurance, time to allow for storms and rough seas, and a team with the right balance of size, experience, talent, emotional stability, and sense of purpose. We feel we have met these criteria, but when we arrive at Bouvet we also need to attend to our obligations to you, our financial supporters and DX audience. How we meet those obligations and expectations will define us as a team. It is our belief that, given the rarity of this entity, we must pull out all the stops. We must utilize maximum legal power, the best antennas, world class transceivers, propagation studies, the best location on the island, a safe vessel and crew, highly qualified helicopter pilots, and the complimentary resources of our team. We will need near real time information flowing to us through our extensive pilot system so that we can maximize our primary purpose - providing QSO's. We have a conscience. We will not do this just for the sake of doing it and end up using a compromised location, less than 24/7 coverage of all open bands, limited power, inefficient antennas, and insufficient time at the island. We want to do this right and give everyone the best possible chance of making the QSO's they desire, be they on 160, the WARC bands, SSB, CW, RTTY, or 6 and 2 meter EME. Rest assured that we will do our very best for you! No shortcuts or compromises! The 3Y0Z Bouvet Island DXpedition Team

5K0, SAN ANDRES. (Update). Operators WJ2O, Will/AA4NC, AJ9V, HK6F and Tim/LW9EOC will be active as 5K0NA from San Andres Island between Feb 12th and March 13th. They plan to be active on various HF bands and 60 meters. Activity will include the ARRL International DX CW Contest (Feb 18-19th) and ARRL International DX SSB Contest (Mar 4-5th) as a Multi-Single entry. QSL via LW9EOC. Also, Tim, LW9EOC, will be in the CQWW WPX DX Contest (Mar 25-26th) as a Single-Op/All-Band entry signing 5K0NA. QSL via LW9EOC.

6W, SENEGAL. Look for Michel, F6AFH, to be active as 6W7SS from La Somone in Senegal between early of January up to April. No other details were provided.

7V7, ALGERIA. Vlad, UA4WHX, continues his African tour and is now active using a special call sign, 7V7V, from Dira, Algeria, on the way to Bou Saada. As this was being written, activity has been on 80 meters CW, but also look for him to possibly be on 40/30 meters using CW, SSB and RTTY. As always, the length of his stay is not known. QSL via his home callsign.

9M4, West Malaysia. A team of Malaysian operators will be active as 9M4LI from Lalang Island, West Malaysia, between Feb 3-5th. Activity will be on various HF bands and modes. QSL Manager is 9W2NDQ. QSL direct to: Lalang Island Team, No. 35A, Jalan Halaman 3, Taman Halaman, Ampang.Selangor. Malaysia., SL 68000, West Malaysia, Malaysia.

9N, NEPAL. Members of the newly formed EI DX Group (EIDX) will be active as 9N7EI from Nepal between March 8-20th. Their Web page states, "For the 1st time, this all 'Echo India' DXpedition team will operate up to 5 stations continuously for 9 consecutive days on all bands and modes from 80m through 10m. Our QTH is located 30 kilometers outside Kathmandu, in a quiet suburb sited at 5,600' above sea level, with great views and take off across the Himalayas." They will have 11 operators. Operators mentioned are Enda/EI2II, Thos/EI2JD, Peter/EI4GZB, Jeremy/EI5GM, Dermot/EI5IQ, Pat/EI5IX, Declan/EI6FR, David/EI9FBB, Declan/EI9HQ, Patrick/EI9HX and Hugh/EI9KF. QSL via M0OXO (OQRS, log search, bureau). QSL direct (w/\$2.00 & SAE) to: CHARLES WILMOT, 60 CHURCH HILL, ROYSTON, BARNSLEY, SOUTH YORKS, S71 4NG, ENGLAND – U.K. For more information and updates, see: <https://9n7ei.com>

AFRICAN TOUR (Reminder). Peter, HA3AUI, will once again be active from two West African countries between (approx.!!!) Jan 20th and Mar 5th. His plans are to be active as 6W2SC from Cabrousse, Senegal, and as J5UAP from Cabroxo, Guinea-Bissau. Dates were not provided. Watch his Web page for possible updates at: <http://cqafrika.net/en/welcome/index.html> He does state that from Senegal (6W) he'll have a K3, Spiderbeam, 100 or 500W, and will operate on 20-10 meters CW (other bands/modes on request). Peter may activate some IOTAs and/or WFFs as 6w2sc/p. From Guinea-Bissau (J5), he will have a K3, 100w, verticals, and operate 20-10 meters CW (other modes on request). QSL via LoTW or direct via his home call sign HA3AUI.

BW, TAIWAN. Koji, JL3RDC, will once again be active as BW/JL3RDC from Taipei during the CQWW WPX DX SSB Contest (March 27-28th) as a Single- Op/All-Band entry. QSL via JL3RDC.

BW, TAIWAN. Kushi, JP3PZG, will once again be active as BW/JP3PZG from Taipei during the CQWW WPX DX SSB Contest (March 27-28th) as a Single-Op/All-Band entry. QSL via JP3PZG.

CE0Y & CE0Z, EASTER AND JUAN FERNANDEZ ISLANDS. Michael, DF8AN, will be active as CE0Y/DF8AN from Easter Island (SA-001) between February 10-17th, and as CE0Z/DF8AN from Robinson Crusoe Island, Juan Fernandez Islands (SA-005), between February 21-24th. Activity from both locations will be on various HF bands using CW and the Digital modes. QSL via his home callsign, direct, by the Bureau or eQSL. NO LoTW.

E5, NORTH AND SOUTH COOK ISLANDS (Update). Bengt-Erik/K7ADD, is active as E51AMF from Manihiki Island (OC-014) between January 11th and February 6th, announced that he will also be active as E51ADD from Rarotonga (OC-13) in the South Cook Islands between February 8-18th. As with the North Cooks, he will also focus on EU, ATNO, and rates. Activity will be on 80-10 meters (160m possible, not guaranteed) on SSB, and RTTY (other high-rate Digital modes possible) using 1500w into vertical and wire antennas near salt water. There will be no operations on CW. This DXpedition commemorates the launch of a new non-profit supporting charitable works by DXpeditions. The Amateur Foundation's Web site is located at: <http://amateurfoundation.org> QSL both callsigns via LoTW or by ClubLog's OQRS (the highly recommended methods). They will also eQSL upon their return home. QSL both callsigns via K7ADD for direct mail. Stay up-to-date on their preparations and other news at: <http://e51amf.amateurfoundation.org>

JD1, MINAMI TORISHIMA. Take, JG8NQJ, is once again active as JG8NQJ/JD1 from Marcus Island in the Minami Torishima (OC-073, JCG 10007) group for the next couple of months (December 15th- March 15th.). He is usually there to work on the island's weather station. Activity will be limited to his spare time. He will be mainly on 17 meters but also on 20/15/12/10/6 meters CW. QSL via JA8CJY or by the Bureau via JG8NQJ.

KC4, ANTARCTICA. Mike, RW1AI, a member of the Russian Speaking Radio Club (N2TA), is now active as KC4/N2TA from the Novolazarevskaya Antarctic Station until the end of February. Activity will be on 80-20 meters using CW and JT65. QSL only to: Russian Speaking Radio Club, P.O. Box 715, Brooklyn, NY 11230

OA0, SOUTH SHETLAND ISLANDS (Update). Members of the Peruvian Radio Club of Peru will be active OA0MP the Machu Picchu Antarctic Base on King George Island, South Shetland Islands (AN-010), between January 9th and March 31st. Activity will be mainly on 40/20 meters using SSB. QSL via OA4O.

OC-177. A group of Indonesian operators will be active as YE0S from Sebira Island, part of Seribu Islands, north of the Jakarta City, between March 20-27th. The Sebira Island is the outermost island of Jakarta Special Capital City District of the Republic of Indonesia. Activity will be on 160-6 meters using CW, SSB and the Digital modes. An Online QSL Request Service (OQRS) will be used for this DXpedition, and if you want a direct QSL you will need to send minimum 3 USDs for each card to cover the cost of the postage to your country. Maximum five QSOs on one QSL card. All DIRECT QSL cards are addressed to ORARI Daerah DKI Jakarta address: Gedung Prasada Sasana Karya Lt.10 Jl. Suryopranoto no.8, Jakarta 10130, Indonesia.

PY0F, FERNANDO DE NORONHA. Erwin, PY2QI, will be active as PY2QI/PY0F from Fernando de Noronha Island (SA-003) between February 15-21st. Activity will be on 40-10 meters including the 30/17/12m bands using CW only. QSL via his home callsign direct.

TX5, AUSTRAL ISLANDS. Members of the CanAm DX Group will be active as TX5T from Raivavae Island (OC-114) in the Australs between February 20th and March 3rd. Activity will be on 160-6 meters using CW, SSB and the Digital modes. Operators mentioned are Robert/W5MJ, Neil/VA7DX, Keith/VE7KW, and Madison/W5RJ (Team Leader). QSL via M0URX or OQRS. Look for more details and updates, watch: <http://www.Australs2017.com>

V5, NAMIBIA. Ops Georg/DD8ZX and Klaus/DJ9KM will once again be active as V5/DD8ZX and V5/DJ9KM from Omaruru, Otjikoko Guest farm, between Feb 6-18th. Activity will be holiday style with a focus on 160-10 m and if possible on 6m. Modes are SSB, RTTY and PSK. They will participate in the CQWW WPX RTTY Contest (Feb 13-14th). Possible contest call sign is V55V (QSL via DJ8VC). QSL via V5/DD8ZX via DD8ZX, direct or by the Bureau. QSL V5/DJ9KM via DJ9KM, direct, by the Bureau or LoTW.

XX9, MACAO (Update). A German team of operators is planning to be active as XX9D between February 13-26th. Operators mentioned are Werner/DJ9KH, Guenter/DL2AWG, Dietmar/DL2HWA, Bert/DL2RNS, Juergen/DL3HRH, George/DL4SVA, Paul/DL5CW, Wolf/DM2AUJ, Sid/DM2AYO, Rolf/DL7VEE and Bom/XX9LT. Activity will be on 80-10 meters (possibly 160/6m) with an emphasis on CW and RTTY, but with some SSB. They plan to have three stations on the air. QSL via DL4SVA. Suggested frequencies are:

CW - 1814.5, 3526, 7026, 10119, 14026, 18086, 21026, 24906 and 28026 kHz

SSB - 1849, 3805, 7095/7182, 14210, 18120, 21275, 24955 and 28465 kHz

RTTY - 3595, 7046, 10136, 14090, 18099, 21090, 24918 and 28090 kHz

6m - 50120/CW and 50120/SSB

PLEASE NOTE: These are the planned operating frequencies. Depending on local situation, they may change the frequency. Please listen! They will work always split....

YB9, Bali, Emmanuel, F5LIT, will once again be active as YB9/F5LIT from Bali Island between January 27th and February 7th. Activity will be on 20/17/15 meters using SSB. QSL via his home call sign, direct or LoTW. No Bureau QSLs.

ZL, NEW ZEALAND. Operators Mark/ZL3AB, Geoff/ZL3GA and Phil/ZL3PAH will use the "Quake Contesters" call sign ZL3X during the ARRL International CW Contest (February 18-19th) as a Multi-2 entry. QSL via LoTW or direct to ZL3PAH.

Once again I tried to keep the announcements of the various DX events listed above, in the February to March time period. An event such as the Bouvet Island DXpedition is special enough to warrant it being listed so that we can make sure we don't miss it. Get on the air and work some DX. For instance, just before starting this column today, I worked Cote d'Ivoire (Ivory Coast) for only the second time. And this time the op has a QSL manager. The card is already filled out and in an envelope ready to mail. You never know what you will here if you don't GET ON THE AIR.

Until the next issue of the award winning Radiogram - 73 and Gud DX!



#	Prefix	Entity Name
1	P5	DPRK (NORTH KOREA)
2	FT5/W	CROZET ISLAND
3	3Y/B	BOUVET ISLAND
4	BS7H	SCARBOROUGH REEF
5	BV9P	PRATAS ISLAND
6	FT/G	GLORIOSO ISLAND
7	SV/A	MOUNT ATHOS
8	FT5/X	KERGUELEN ISLAND
9	EZ	TURKMENISTAN
10	ZS8	PRINCE EDWARD & MARION IS
11	YK	SYRIA
12	KH1	BAKER HOWLAND ISLANDS
13	VK0M	MACQUARIE ISLAND
14	CE0X	SAN FELIX ISLANDS
15	KH7K	KURE ISLAND
16	S2	BANGLADESH
17	JD/M	MINAMI TORISHIMA
18	VP8S	SOUTH SANDWICH ISLANDS
19	XX9	MACAO
20	VK0H	HEARD ISLAND
21	AP	PAKISTAN
22	FT/J	JUAN DE NOVA, EUROPA
23	KH3	JOHNSTON ISLAND
24	3Y/P	PETER 1 ISLAND
25	3C0	ANNOBON
26	5A	LIBYA
27	3B7	AGALEGA & ST BRANDON IS
28	PY0T	TRINDADE & MARTIM VAZ IS
29	A5	BHUTAN
30	XZ	MYANMAR
31	YV0	AVES ISLAND
32	EP	IRAN
33	9N	NEPAL
34	FT/T	TROMELIN ISLAND
35	3C	EQUATORIAL GUINEA
36	VU7	LAKSHADWEEP ISLANDS
37	VU4	ANDAMAN & NICOBAR IS
38	3A	MONACO
39	T5	SOMALIA
40	VP8O	SOUTH ORKNEY ISLANDS
41	VK9X	CHRISTMAS ISLAND
42	FK/C	CHESTERFIELD IS
43	UJ	UZBEKISTAN
44	VK9C	COCOS (KEELING) ISLAND
45	1S	SPRATLY ISLANDS
46	PY0S	SAINT PETER & PAUL ROCKS
47	VP8G	SOUTH GEORGIA ISLAND
48	ET	ETHIOPIA
49	8Q	MALDIVES
50	H40	TEMOTU PROVINCE

#	Prefix	Entity Name
51	VK9M	MELLISH REEF
52	T31	CENTRAL KIRIBATI
53	XU	CAMBODIA
54	E3	ERITREA
55	ZL9	NEW ZEALAND SUBANTARCTIC IS
56	E4	PALESTINE
57	TL	CENTRAL AFRICAN REPUBLIC
58	4S	SRI LANKA
59	KH4	MIDWAY ISLAND
60	JX	JAN MAYEN
61	V8	BRUNEI
62	YA	AFGHANISTAN
63	ZD9	TRISTAN DA CUNHA & GOUGH IS
64	VP6/D	DUCIE ISLAND
65	XW	LAOS
66	TT	CHAD
67	YI	IRAQ
68	4W	TIMOR-LESTE
69	EX	KYRGYZSTAN
70	J2	DJIBOUTI
71	3D2/C	CONWAY REEF
72	7O	YEMEN
73	9U	BURUNDI
74	KH5	PALMYRA & JARVIS ISLANDS
75	3W	VIET NAM
76	5U	NIGER
77	VK9W	WILLIS ISLAND
78	FH	MAYOTTE
79	R1F	FRANZ JOSEF LAND
80	FT5Z	AMSTERDAM & ST PAUL IS
81	JD/O	OGASAWARA
82	D6	COMOROS
83	ZC4	UK BASES ON CYPRUS
84	ZL8	KERMADEC ISLAND
85	Z8	REPUBLIC OF SOUTH SUDAN
86	TN	REPUBLIC OF THE CONGO
87	1A0	SOV MILITARY ORDER OF MALTA
88	TI9	COCOS ISLAND
89	KP5	DESECHEO ISLAND
90	KH9	WAKE ISLAND
91	T33	BANABA ISLAND
92	CY0	SABLE ISLAND
93	KH8/S	SWAINS ISLAND
94	EK	ARMENIA
95	9X	RWANDA
96	3D2/R	ROTUMA
97	S0	WESTERN SAHARA
98	EY	TAJIKISTAN
99	VQ9	CHAGOS ISLANDS
100	H4	SOLOMON ISLANDS

Hamfest Calendar

02/19/2107 - Mansfield Mid Winter Hamfest - Location: Richland County Fairgrounds, 750 North Home Rd, Mansfield, OH 44901 - Website: <http://W8WE.ORG> - Talk-In: 146.94 (PL 71.9) - Public Contact: Danny Bailey, W8DLB - 70 Euclid St. - Shiloh, OH 44878 - Phone: 419-896-2165 - Email: W8DLB113@gmail.com

03/05/2017 - WinterHamFest - Location: VFW Post 1079, 500 Abbe Road, Elyria, OH 44035 - Website: <http://noars.net> - Northern Ohio Amateur Radio Society - Public Contact: Darlene Ohman KA8VTS, 4122 Bush Avenue Cleveland, OH 44109 - Phone: 216-398-8858 - Email: dohman@roadrunner.com

03/19/2017 - Toledo Mobile Radio Association Hamfest and Computer Fair - Location: Owens Community College' 30335 Oregon Road, Perrysburg, OH 43551 - Website: <http://www.tmrahamradio.org> - Sponsor: Toledo Mobile Radio Association - Public Contact: Brian Harrington WD8MXR, 4463 Holly Hill Drive, Toledo, OH 43614 - Phone: 419-385-5624 - Email: wd8mxr@gmail.com

04/08/2017 - CFARC 63rd Annual Hamfest - Location: Emidio and Sons Party Center, 48 East Bath Road, Cuyahoga Falls, OH 44221 - Website: <http://www.cfarc.org/hamfest.php> - Sponsor: Cuyahoga Falls Amateur Radio Club - Public Contact: Michael Luoma K8MAL, PO Box 614 Cuyahoga Falls, OH 44222, Phone: 234-206-0270 - Email: hamfest2017@cfarc.org

05/19-20-21/2017 - 2017 Dayton Hamvention - Location: Greene County Fair & Exposition Center, 120 Fairground Road, Xenia, OH 45385 - Website: <http://www.hamvention.org> - Sponsor: Dayton Amateur Radio Association, Public Contact Phone: 937-276-6930 - Email: info@hamvention.org

07/09/2017 - 20/9 Radio Club Hamfest, Computer & Electronics Show - Location: Austintown Senior Center, 112 Westchester Drive, Austintown, OH - Website: <http://20over9.org> - Sponsor: 20/9 Radio Club, Inc. - Public Contact: Dotti O'Neil-Meleski KC8SYF, 17520 Denver Drive Lake Milton, OH 44429 - Phone: 330-651-8420 - Email: hamfest@20over9.org

08/05/2017 - 2017 Columbus, Ohio Hamfest and Ohio ARRL Section Conference - Location: Aladdin Shrine Center, 1801 Gateway Circle, Grove City, OH 43123 - Website: <http://columbushamfest.com> - Sponsor: Voice of Aladdin Amateur Radio Club, W8FEZ - Public Contact: John Lehman K8PJ, 7415 Hagerty Road Ashville, OH 43103 - Phone: 614-571-5179 - Email: voiceofaladdin@gmail.com

Happy Birthday PCARS Members

PCARS members having a birthday in **February**:

N4IT	Carl Capps	Steve Gray
K8JE	Jim Weaver	WV8P David Germ
KC8LJY	Michael Bakes	KB8CLH Vivian DeSimio
KB8SK	George Boggs	KB8DPN Russ Anderson Sr.
KD8DFL	Ray Larrick	KD8FLZ Mike DiCarro
KC8YYS	James Albright	

Dues are Over Due

Please, help keep PCARS going by paying your annual dues. The sooner you get them paid, the easier our Treasurer's job will be.

You can mail in your dues, bring them to a meeting, or better yet - pay **On-Line** using **PayPal**. Yes, we have that option right on the PCARS web site.

You pay a slightly higher amount to cover the PayPal fee, but it's easy and fast. Check out the PCARS web site under the "Club Info" tab.



Pay your Dues With Paypal!
You can now pay your dues via Paypal. Just click the button below.

PCARS Dues Options

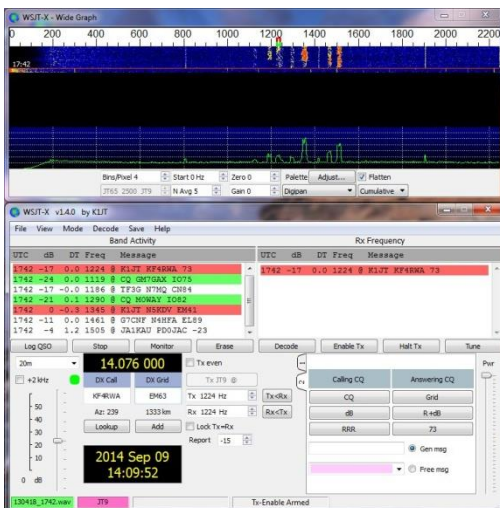
Full Membership (1yr)	\$20.91 USD
Full Membership (1yr)	\$20.91 USD
Senior Full Membership (1yr)	\$16.79 USD
Family Members (1yr)	\$10.62 USD

Buy Now

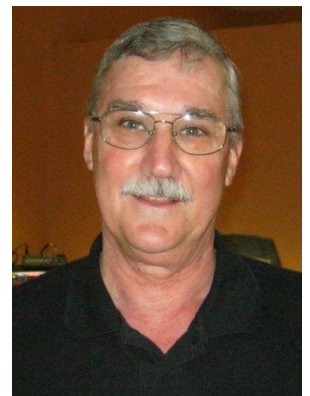
At the end of this newsletter is a dues form. Please use the form so we have all your correct information on file.



Digital Special Interest Group



Rick, K8CAV



PCARS will be holding its monthly Digital Special Interest Group meeting on Tuesday February 7th at 7:00 PM at the club site in Ravenna.

This month we'll be talking about JT-65HF and how to use it. JT-65HF is a very robust weak signal digital mode that is becoming very popular for grabbing contacts that would be difficult to get in phone.

As always we'll also be available to help with any questions or problems you may have

Spring Cleaning at the Club Site - FREE STUFF

In an effort to get the club site cleaned up and organized we've found a number of items on the shelves that we think might belong to club members personally such as a CB radio, Hallicrafter ham band receiver and more.

If you have anything like this at the club site, please make sure you come in and mark it with your name and call sign so it does not inadvertently get disposed of.

Also, we have a couple of tower computers, numerous flat screen monitors a bunch of keyboards, mice (the computer type of mice, but if you really want a real mouse, we can probably find one for you) and cables from the old club computers that we are **giving away - FREE**.

We will be at the club site on **Tuesday January 31st from 7:00 PM until 8:30 PM**, and again on **Thursday February 2nd during the day from 9:00 AM until 1:00 PM** for anyone that wants any of it, **FOR FREE**.

It's a first come first serve basis and anything not gone by the end of the day will be disposed of.



PCARS K8BF

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Paper Chase

Joe, W8KNO



For February, we think Valentines and Love but it also marked a turning point in World War II. You know the event even if you were not born then. That is because the photograph that commemorates this event is the most reproduced photograph in history. It is the photograph of five Marines and one Navy Corpsman raising the flag on Mount Suribachi on Iwo Jima. This occurred on February 23, 1945. The campaign started February 19th and lasted until march 26th. The casualties for the US were 6,000 dead and 17,000 injured. Only 200 of the 21,000 Japanese defending the island were captured.

Five Sullivan Brothers Amateur Radio Club will sponsor a Special Event to commemorate the event. Listen for W0FSB on or about 7.240, 14.240 or 21.240. If you make a contact, you can obtain a QSL by sending a QSL card and a #10 SASE envelope. For a Certificate and QSL card, send an address label and 3 Forever Stamps to:

Five Sullivan Amateur Radio Club
3186 Brandon Diagonal Blvd
Brandon, IA 52210

For an eQSL & Certificate, send a e-QSL, then an email to w0fsb@outlook.com, requesting a .jpg file of the certificate that you can print. For your information, "THE SULLIVANS" is the Museum Ship in Buffalo.

Vendors !!!

Reserve your tables for the
Cuyahoga Falls Amateur Radio Club, Inc.
**63rd Annual
Hamfest
Electronics and Computer Show**

Saturday, April 8th 2017, 8:00 AM - 1:00 PM

Emidio and Sons Party Center
48 E. Bath Road at the corner of State Road
Cuyahoga Falls, Ohio 44223

\$15 each for the first two tables (includes one chair each).

\$12 for each additional table (no chairs).

Extra chairs are \$2 the day of the event subject to availability.

As always, you are welcome to bring your own.

Online Reservations:

<http://www.cfarc.org/hamfest-reserve.php>

For more information, please visit our hamfest page:

<http://www.cfarc.org/hamfest.php>

Major vendors with confirmed reservations (paid in full) will have their organization mentioned on our web flier and newly printed paper fliers.

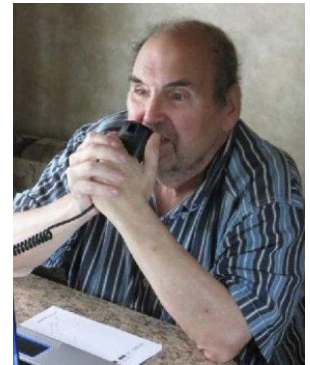
Thank you for your time and we hope to see you there!

Mike Luoma, K8MAL [234-206-0270](tel:234-206-0270) hamfest2017@cfarc.org

The Bands Went Dead

Chuck, K8BBE

The last high wind storm almost put me off the air for contesting. I got up around 0500 to try my luck on 160 meter CW.



Just as I started to answer a CQ, **the band totally dropped out.**



My XYL was in the kitchen getting a glass of water when she heard a large boom. She came running to the ham shack and said she thought the tripod fell off the roof.

Since 160 went dead, **I looked at 40 meters. It was dead too.** HUMMM Something must have happened, but it was still dark outside.

Around 0800, I went out on the flat roof to find a tree had fallen totally destroying my Hustler 5-BTV, 160 Meter antenna and bending the driven element on the Tri-Bander.

At least I moved the Carolina Windom to the other side of the house completely. The VHF antennas were not damaged. Now is the long wait for the insurance company.



ARRL Legislation

**The work continues
— HR 555**

**The Amateur Radio
Parity Act of 2017
has been reintroduced.**



Trump Promises Greatest Propagation Ever

Andy, K5PO



NEWINGSTEAD, VT – Newly inaugurated President Trump wasted no time reaching out to members of the amateur radio community. On Monday, President Trump was the keynote speaker at a banquet co-sponsored by radio equipment manufacturer [Peanut Whistle Transmitters Inc.](#) and the National Radio Retransmission Legion (NRRL). Trump was a surprise late addition to the speaker lineup for the annual two-day “Radio in America” gathering at the NRRL’s headquarters.



“We invited him as a courtesy, but honestly didn’t expect he’d show up. I assume he’s a very busy man,” said NRRL president Bob Gilligan. “But then I received a call yesterday from the Trump administration who informed us that the President would most certainly meet with such great communicators. We were shocked! To fit in the President we had to cancel Wiley Roger’s planned panel discussion on his hypothesis that blue-colored wire has increased his DX performance.”

President Trump’s speech to the 27 attendees lasted a little over three hours and ranged in topics from installing antennas atop Trump Tower to the low sunspot cycle. When Peanut Whistle Transmitter Company’s Chief Counsel asked Trump if he had any plans to improve propagation as we approach a new low in the sunspot cycle, President Trump had no reservations in stating, “**My administration will bring amazing propagation to all of you. To all American hams. It’ll be the best. The best propagation. So big. They’ll be so much DX, we’ll be exporting it to other counties. You’ve never seen propagation like the propagation we’ll have.**”

Trump closed the banquet with the announcement that he’ll immediately sign an executive order to increase sunspot counts to 1000 within the next 100 days. Ham Hijinks inquired with NOAA Space Weather Scientist Ramish Pental about how the administration would go about this executive order. He quickly replied, “It literally makes zero sense. I have no idea whatsoever.”

HAM HIJINKS
HAM RADIO NEWS OF THE FUNNY VARIETY

NOISE PRODUCTION
BLANKETS

HamHijinks.com



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Swap-N-Shop

FOR SALE: Base Antennas & Mosley Classic 36 6-element Tri-Bander There are 2 Commercial Base Station antennas manufactured by **Antenna-Specialists Model: ASP-680** factory tuned for the 2-meter band both just came out of service with mounting clamps and N-connectors on the pigtailed. **2 ROHN tower standoffs**, various coax cables, extra antenna clamps for mounting. This entire package and all for a price of \$300 for pickup only in N.E. Ohio (Cleveland area). **Yaesu FT-60**-\$100 100 **Bird VHF slugs** - \$50 each. **Antenna Specialist 100 watt mobile amp** - \$100

Contact: Jeff, WA8SAJ by phone at **440-951-6406** [3/2/17]

FOR SALE: Cushcraft 3- element Mono-band 10 meter Yagi: New \$ 289.95, will sell for \$ 125.00.
M2 - 6M5XHP, 6 Meter Yagi 5-element 18 ft boom: New \$ 419.95, will sell for \$ 125.00

Contact: Ed, K8IV by e-mail at K8IV@portcars.org [2/2/17]

FOR SALE: Cushcraft Model XM-520 20 Meter 5 El Beam \$200 **Yaesu FT-757GX-II** HF Radio \$250
Kenwood SP-430 Speaker \$25 **Nye Viking, MBI-001** Tuner \$100 **Sencore TF151**, Transistor tester \$15
Shure model PE515, Microphone \$15 **Shure model 444D**, Microphone \$15 **Digital Multimeter** \$15
AEA model QT-1, Antenna tuner \$25 **Radio Shack 2 meter HTX-202** \$25 **Heathkit VTVM IM-11** \$25
Astron Power Supply Model RS-20M \$50 **Variable Voltage Power Supply** +18 and -18 \$20
Pyramid Power Supply model PS-25 \$50

Misc tower parts, lots contact me if interested. Will accept all reasonable offers.

Contact: Al, AB8AA at 330-207-3296 or ab8aa@arrl.net [3/2/17]

FREE TO A GOOD HOME: The following **QST Magazines** (good condition). Thanks to the magic of downloadable archives, I'm getting rid of a ton of old QST's that I've hung on to over the years.
June-Dec 1993 Jan-May 1996 All of the following years: 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015

Contact: Deron, N8XTH at N8XTH@portcars.org [3/2/17]

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 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: [5/2/17] indicates the ad will run until May 2, 2017.





PCARS Members - Amateur Radio License Plates Wanted

Dig out an old 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 club station.

We have 54 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 Yahoo 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 Yahoo Group

Members are reminded that PCARS has a Yahoo Group dedicated to PCARS information. It's a great site to sign up for and get on the mailing list. Check out the PCARS Yahoo Group at:

<http://groups.yahoo.com/group/PCARS/>

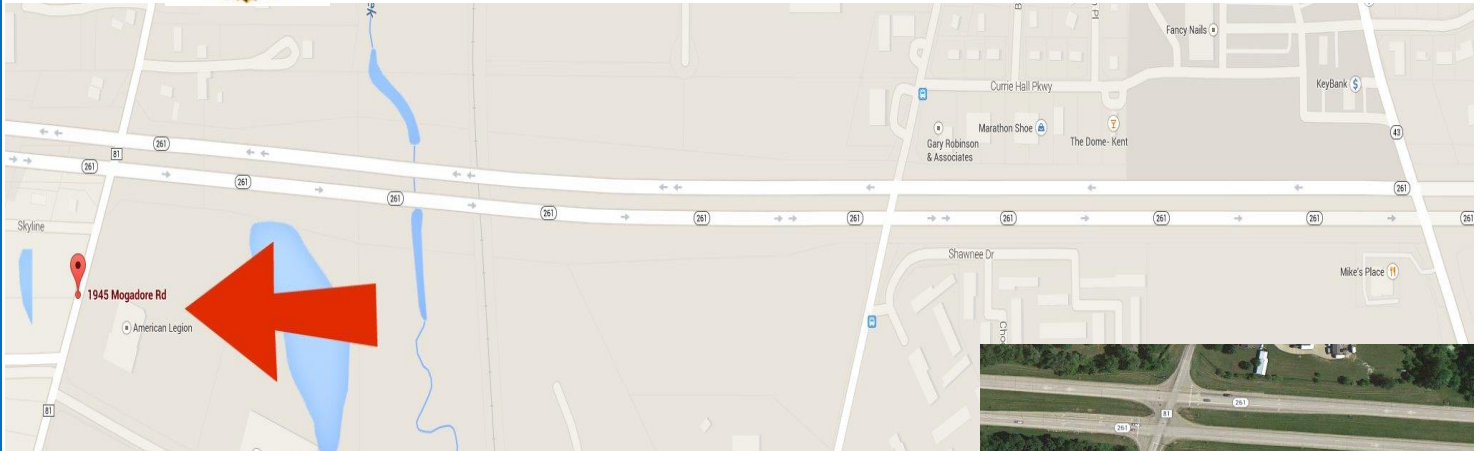


PCARS Meetings

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)*

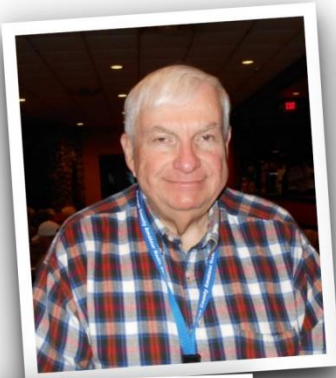
The menu consists of your basic burger / dog / chicken sandwiches, wings, fries, onion rings, and salads. There is also an appetizer selection as well. Adult beverages are available and costs are in line with what you would expect at most bar-restaurant facilities.

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.

Photos from the January PCARS Meeting







PCARS Meeting - January 9, 2017

 **PCARS K8BF** 

The Club that puts the FUN in Ham Radio!

PCARS
Join Now
Discover the FUN



Important Dates This Month

Thu 2nd Feb, 2017 will be... Marmot Day - Better known as GROUND HOG DAY - Marmot Day is a celebration of marmots, a group of large squirrel-like animals that includes groundhogs, woodchucks and ground squirrels. Even though marmots are found all over the world, from Canada to Mexico and from Russia to India, these animals don't seem to get the attention they deserve. Marmot Day was established in 2002 to celebrate these interesting creatures.



Marmot Day festivities take many different forms. Marmot Day is an official holiday in Alaska, and it typically involves a family dinner where marmot jokes and anecdotes are shared. The city of Owosso in Michigan hosts a Marmot Day festival which offers many family activities and a marmot video contest.

Want to celebrate Marmot Day, but can't make it to Alaska or Michigan? No problem. If you live near marmot habitats, you can go marmot watching — if not, you can try researching marmots online or buying yourself a stuffed marmot. That pesky Ground Hog from Pennsylvania will be in the news again this year...

=====

Mon 13th Feb, 2017 will be... Radio Day - The world used to be a much bigger place, at least when you consider the difficulty involved with transmitting information from place to place. In the beginning we simply had to walk and talk to one another, and then we were able to write and exchange letters. Ideas and music travelled the world at a snail's pace as compared to today. But then the radio was invented, and suddenly transmitting ideas hundreds of miles became a relatively trivial matter! The world became connected, and it would never be the same.



History of Radio Day

Radio waves were originally discovered by one Heinrich Hertz, following on the heels of his discovery of electromagnetic radiation. While experiments were performed in using this energy to transmit information, it wasn't until 1890 that the word radio was first applied, when the radio-conducteur was invented by French Physicist Édouard Branly. Previous to this all forms of communication using this discovery was known as wireless communication, but eventually radio spread across the world and became the go-to term.

Radio quickly spread to find applications in every conceivable venue, from transmitting information, to broadcasting music, and even serving as a way of transmitting stories. Long before there was TV, there was Radio Theater, (incidentally, this also brought along the creation of Foley artists, but that's another story entirely).

Radio had been recognized as having such a profound impact on the world today that the Spanish Radio Academy put in a formal request to have Feb 13th be established as 'World Radio Day' on September 20, 2010. On September 29, 2011 the UNESCO officially proclaimed that it be established the following February. So it was that the first World Radio Day was celebrated on February 13, 2012.

How to Celebrate Radio Day

Radio Day is a great opportunity to remember all those years we spent travelling with Walkman, and enjoying the best and newest music broadcast from your local radio station. Set aside your CD's and MP3 players, and remember when you discovered new music by what they played on the radio. Dig out that old boom box and

drag it down to your local beach or park to reconnect to your local radio community, and remember what the world was like before whatever music we wanted was at our fingertips.

Maybe you'll find we're better for it, or maybe you'll realize that the news broadcasts kept you in touch with your community, the voice of local celebrities accompanying you and bringing a hometown feel to your morning commute, your lunchtime break, or even your road trip.

Sat 18th Feb, 2017 will be... Battery Day - Where would we be without the humble battery? Take a moment to consider how many of your household items use batteries – from cars to remote controls and hand-held devices, Battery Day is all about celebrating and recognizing just how important the simple battery is to our way of life.



Fri 24th Feb, 2017 will be... World Bartender Day - The bartender is everyone's favorite person on a night out. They will keep you well supplied in beverages – probably of an alcoholic variety – at any bar or pub you happen to visit, as long as you have enough money and aren't too drunk to be served!



World Bartender Day is the day to appreciate the staff in your local bar. They work hard to keep their customers happy and often don't get paid very well! Remember to always be friendly to the bartender, especially by being patient if you have to wait to be served. Give the bartender a smile and say 'please' and 'thank you' – the bartender will appreciate it and you are more likely to get better service next time you buy a drink. Most importantly, if you're in a country where tipping is expected, make sure you tip appropriately!

Anyone want a drink?

Thanks & 73

Tom "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 will be known as the **BIG FUN** amateur radio club with plenty of activities to report on in this newsletter all throughout 2017 and beyond.

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

K8CAV, AC8NT, KB8UUZ, WB8LCD, W8PT, KC8PD, N8RLG, K4XAR, W8KNO, K8BBE, K5PO, Radio World, Club Log, The ARRL and the World Wide Web.

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



Portage County Amateur Radio Service, Inc. (PCARS)

Membership Application [] New [] Renewal

Name: _____ Call Sign: _____ License Class: _____

Address: _____

City: _____ State: _____ ZIP: _____

Phone: _____ E-Mail Address: _____

ARRL Member? [] Yes [] No ARRL Membership Expires Month: _____ Year: _____
 Birthday: Month: _____ Day: _____ (don't need year)

A \$5.00 initiation fee will be assessed in the first year of membership for all new members.
Membership year is Jan 1 - Dec 31. Dues are due no later than Jan 31st. If you don't pay by 1/31 - you are no longer a member and you will have to pay the \$5.00 fee again plus dues per the schedule below.
 Dues are as follows: Example - Regular Member Pays on Jan 1st \$20 for entire year. If paid on June 1st, \$15 for entire year, etc.

Check One	Dues Amounts
<input type="checkbox"/> Regular Full Membership	Pay January 1 through May 31= \$20.00 (full year) Pay June 1 through August 31 = \$15.00 (last 7 months)
<input type="checkbox"/> Associate Membership	Pay September 1 through November 30 = \$10.00 (last 4 months) Pay December 1 through December 31 = \$5.00 (last month)
<input type="checkbox"/> Regular Senior Full Membership (65+)	Pay January 1 through May 31= \$16.00 (full year) Pay June 1 through August 31 = \$12.00 (last 7 months)
<input type="checkbox"/> Associate Senior Membership (65+)	Pay September 1 through November 30 = \$8.00 (last 4 months) Pay December 1 through December 31 = \$4.00 (last month)
<input type="checkbox"/> Family* Member	Pay January 1 through May 31= \$10.00 (full year) Pay June 1 through August 31 = \$8.00 (last 7 months)
Call Sign of Regular Member: _____	Pay September 1 through November 30 = \$5.00 (last 4 months) Pay December 1 through December 31 = \$3.00 (last month)

(*Family = wife, husband, brother, sister, son, daughter, father, mother that is a licensed amateur radio operator and who's FCC license has the same address as the paid regular member's FCC license)
Checks can be made out to either "PCARS" - or - "Portage County Amateur Radio Service, Inc."

What are YOUR Ham Radio interests:

Signed: _____ Date: _____

Mail to: **Portage County Amateur Radio Service, Inc.**
 c/o: Tom Sly, WB8LCD
 1480 Lake Martin Dr.
 Kent, OH 44240

Date Received:	<input type="radio"/> New	<input type="radio"/> Renew
Initiation Fee: \$	+ Dues: \$	= Total \$
Paid: <input type="radio"/> Cash	-or- <input type="radio"/> Check	Check #
Date Voted:	Results:	Member Number:
<input type="radio"/> Database Updated		

Rev. 25 Jan 2017

Portage County Amateur Radio Service, Inc.



PCARS - K8BF

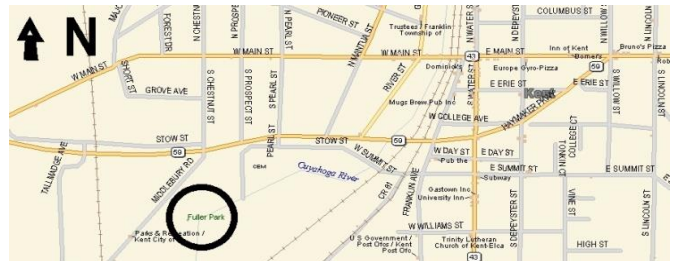


Twelfth Annual "Freeze Your Acorn Off" (FYAO) Special Event Station

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

*When: Saturday - Feb. 11, 2017
Set up: 9am*

Operating Time: 10am - 4pm EST



We will be active on CW, Digital & Phone in the 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:
Bob Hewett, K8FEY - 3670 Sea Ray Cove
Reminderville, OH 44202

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 W8PT@portcars.org



FREEZE YOUR ACORNS OFF PCARS QRP EVENT

IT'S THE 12TH ANNUAL FYAO

- YOU CAN SET UP A QRP STATION
- COME OUT AND SUPPORT THE OTHER STATION OPERATORS AS THEY BRAVE THE ELEMENTS
- SIGN IN AT EACH OF THE STATIONS YOU VISIT TO EARN THEM POINTS
- FEED THE BEARS - BRING A DISH TO ENTER THE BEST DISH CONTEST
- DONATE CHIPS, COOKIES, SODAS

SEE THE PCARS NEWSLETTER FOR MORE DETAILS

Please contact Chuck, W8PT to reserve your space or ask any questions!



FYAO just won't be the same if you are not there!

John KD8MQ might share his chili with you!



FEBRUARY 11

FRED FULLER PARK KENT, OHIO



Pioneer Amateur Radio Fellowship, Inc.



Hamvention 2017



Saturday, May 20, 2017 - 5:30 AM

Don't miss out on this year's PARF Bus Trip to the world's largest topical conference and product exhibition. Save on gas, parking, and walking by riding with us! Leave the driving to us and you can come and go to the flea market with your great purchases and leave them on the bus. This year the Hamvention has been moved from Hara Arena to the nearby Greene County Fairgrounds in Xenia, Ohio.

You can save \$10* if you book before April 15th.

The cost of the **Bus & Entrance ticket** to the Hamvention:
\$72* before April 15, 2017

The cost of the **Bus Only** to the Hamvention:
\$55* after April 15, 2017

(You will need to get your own Hamvention Entrance Ticket at gate \$27,
or order by phone & have held at Will Call--possibly getting Advanced \$22 price.)

P.A.R.F. reserves the right to cancel this trip should a minimum of 22 riders not be secured by April 15th. If that happens, a full refund will be made. Otherwise, cancellation by you at any time results in a \$5 deduction of refund for handling.

We will take riders right up to departure that morning (if there are seats available) on a first come, first served basis.

Departure time is 5:30 AM SHARP, so please be on time so you don't miss the bus!

Parking will be in the back of the church.

There will be a stop for breakfast @ McDonald's and a dinner stop @ Golden Corral Buffet (out of pocket expense).

Transportation is being provided by the Crossroads Transportation Company.

This bus is a smoke free bus, so there will be no smoking permitted.

To Order - Complete application & send with check/money order (*payable to "PARF"*) to:

Joy Spencer KA8TDF
2101 Bigelow St
Akron, OH 44314
Or call 330-745-5115
E-mail: KA8TDF@arrl.net

Please supply a return e-mail address for your receipt confirmation.

Location of Departure:**

Akron Baptist Temple, 2324 Manchester Road, Akron, Ohio 44314
Located on Rt. 93 just north of Rt. 224

**** The church is currently up for sale. We will keep you up to date should that happen and an alternative departure location is needed. (Rest assured, we will work to keep it within the local area.)**

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

Meetings: 2nd Monday of each month at 7:00 PM

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.

All are welcome to attend ~ Stop in and say hello!

PCARS uses the **K8IV** repeater: **146.895 MHz PL 110.9** ~ Rootstown, Oh ~ EchoLink Node: **K8SRR**

PCARS thanks **K8IV** for making the repeater available to area hams and for PCARS activities



~ 2017 Officers ~	2017 PCARS Appointments & Committees	
President - Rick Kravis - K8CAV Vice President - Jim Wilson - AC8NT Treasurer - Amy Leggiero - KD8SKL 3 Year Trustee - Robert Gurney - N8RLG 2 Year Trustee - Jim Aylward - KC8PD 1 Year Trustee - Chuck Patellis - W8PT Past President - Tom Sly - WB8LCD	ARRL Awards - DXCC WAS, VUCC, WAC	W8KNO Joe Wehner
	ARRL Awards - WAS	KB8UUZ Tom Parkinson
	Club Site Manager/Liaison	KC8PD Jim Aylward
	Contest Coordinator	W8PT Chuck Patellis
	EchoLink	K8SRR Steve Randlett
	Field Day Chairman	W8PT Chuck Patellis
	FYAO Chairman	W8PT Chuck Patellis
	Historian	KB8SZI Peggy Parkinson
	K8BF Callsign Trustee	K8FEY Bob Hewett
	K8BF QSL Manager	K8FEY Bob Hewett
	Membership Chairman	KC8PD Jim Aylward
	Net Control Manager	WB8LCD Tom Sly
	Net Night - Club Manager	WB8LCD Tom Sly
	~ Meetings & Net ~	Newsletter Editor
2 nd Monday of each month. 7pm Thursday night Club Net at 8 pm on 146.895	OSPOTA Chairman	KB8UUZ Tom Parkinson
	Public Information Officer	WB8LCD Tom Sly
	Secretary	WB8LCD Tom Sly
	Tech, Gen & Extra Class Manager	AC8NT Jim Wilson
	Volunteer Examiner Liaison	N8RLG Robert Gurney
	Webmaster	KD8MQ John Myers

PCARS Active Volunteer Examiner Team Members	Call Sign	Name
KC8PD		Jim Aylward
KB8UUZ		Tom Parkinson
WB8LCD		Tom Sly
N8XTH		Deron Boring
N8PXW		Jim Korenz
N8QE		Bob Hajdak
W8PT		Chuck Patellis
K8IV		Ed Polack
K8QF		Russ Conklin
N8RLG		Robert Gurney
W8RID		Robert Davet
WA8CCU		Al Nagy
NR8W		Russ Williams
W8EZT		Frank Tompkins
N8OQQ		Bryan Buchwalter
AC8NT		Jim Wilson
K8MSH		Mark Haverstock
KA8TOA		Greg Ash
KB3GXB		Jennifer Andrews



PCARS Active Volunteer Examiner Team Members

PCARS Incorporated
Nov. 1, 2005

First Meeting
Nov. 14, 2005



ARRL Affiliated
April 20, 2006



Special Service Club
March 22, 2010

The **RADIOGRAM** is the official *Award Winning* (ARRL Ohio Section Newsletter First Place Winner for 2012 AND 2013. Second Place in the Great Lakes Division for 2013. Second Place ARRL Ohio Section Newsletter for 2014. Third Place Winner in the Ohio Section 2015. Second Place Winner in the Ohio Section for 2016.) newsletter of the Portage County Amateur Radio Service, Inc. (PCARS) – copyright © 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. 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!**

This is the **Electronic E-Mail** version of the **PCARS Newsletter, The RADIOGRAM**. The advantages to receiving this way are: You get **COLOR** pictures, active links, **NO postage needed** and the newsletter is delivered right to **YOUR e-mail box!** 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. Yes I know the cover says there is a cost, don't worry you won't get sent a bill or be hounded by bill collectors. Since this now looks like a magazine, I thought - what the heck, let's put a price on it. Every month it's listed in a different currency just for fun. Send your newsletter inputs (in **.TXT format**) along with in-focus pictures (not small 20 kb photos) to the newsletter editor: kb8uuz@portcars.org



NLC

