

The RADIS GRAM When All Else Fails ~ Amateur Radio Works

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

November 2016 - Volume 11 Number 11

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In This Issue -

OSPOTA 2016 Results

Ohio State Parks On The Air



PCARS ELECTIONS COMING UP at the November Meeting

Center of Hope Donation Drive This Month!





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



In This Issue of



Volume 11 November 2016 Number 11

Feature Articles	
From the PCARS President	3
Officer Election Information	4
From the PCARS Vice President	5
Center of Hope Donations	8
New DX Engineering Catalog & the PCARS Black Squirrel	9
ARRL Sweepstakes - Can you get a Clean Sweep?	11
Report on the PA QSO Party	12
Vanity Call Sign Rule Change Petition	14
OSPOTA 2016 Results	15
Spring Forward - Fall Back	22
Recent Licensing Statistics	22
Inside the Russian Short Wave Radio Enigma	25
The Life of a Bureau Letter Sorter	31
Niagara Falls	36
Celebrating You Club's Elmers	37
Ubiquiti Antenna Build Day	38
Membership	39
Have a Wonderful Thanksgiving	47

Mark Your Calendars	
Schedule of Events	7
VE Test Sessions	10
Contest Calendar	11
Hamfest Calendar	23
Net Info & NCS Schedule	23
Skywarn Recognition Day	24
ARRL CEO to Visit in Sharon, PA	33
Meetings, PCARS	42
Important Days This Month	45

Regular Departments	
Patches & Stickers, PCARS	10
EmComm	21
YouTube - PCARS	23
Happy Birthday	25
Let's Talk	33
From the Great Lakes Division Vice Director	30
QRP/CW SIG	31
Linux for Hams SIG	33
Paper Chase	34
Swap-N-Shop	40
Member Ham License Plates Wanted	41
Yahoo Group - PCARS	41
Pictures from the Last PCARS Meeting	43

Finals	
Thanks & 73	48
Membership Application - New or Re-New	49
Freeze Your Acorns Off flier	50
Club Information and Fine Print	51











From the President

Rick, K8CAV PCARS President

Our November meeting is by far and away the most important PCARS meeting for you to attend for a couple of reasons. First, we have annual elections for officers and trustees for the club. The offices of President, Vice President, Treasurer, and three-year trustee will be voted on. This is your opportunity as a club member to determine the direction you want to see the club go in by either running for office yourself, or by voting for a candidate that best represents you in our club.

The second reason that this is PCARS' most important meeting is that this is the month the club donates its portion of the 50-50 raffle to the Center of Hope, and takes donations from members for them as well. The Center of Hope provides both hot meals and groceries to local residents who are in need. Early in PCARS history the Center of Hope graciously provided their facility for us to have our meetings, hold classes, and hold projects at. PCARS members have always been exceedingly generous with their 50-50 ticket purchases and their donations and I hope that again this year we'll be able to provide help to the Center of Hope and those that they serve. We have some special prizes in November for the 50-50 raffle so make plans to be there and be generous.

The annual PCARS Holiday Party will take place on the second Monday of December and will be held at the American Legion Post 496 in Kent. The party is being catered by Little City Grill and those who attended last year can attest to how good the food was. We'll have a gift exchange and a great evening of camaraderie with fellow PCARS members so mark your calendars and plan to come out. Details will follow.

PCARS has been invited to participate in the Akron Mini Maker Faire to be held at the Akron Public Library on Saturday November 12th from noon to 4:00 PM. The Maker Faire is a great way for us to introduce the kids and young adults who attend these events, to Amateur Radio and what it has to offer to today's youth. We plan on having operational displays of Software Defined Radio, projects using the Raspberry PI computer and other displays involving Amateur Radio. If you would like to help out, please contact Jim, AC8NT and let him know.

There's not too many more days before the weather will turn to winter so use the last days of fall to get those outdoor projects finished up. Inspection and minor repairs now can save some big headaches in winter trying to salvage an antenna system that goes down in ice or snow. Need help with a project? The PCARS Yahoo group is a great place to post when looking for some help or expertise.

Thanks again to all of our PCARS members, whether you lead a group or activity or participate. You make our club the enjoyable organization it is and I'm thankful for you being a part of it.



PCARS Officer Elections - November 14th

Rick, K8CAV
PCARS President

So you're thinking about running for a PCARS office but you're not sure what it's all about? Below is some information about each of the elected offices for PCARS including a description and list of responsibilities. Some of this information comes from our Constitution and by-laws and some from day to day performance of duties in these positions.



President. The President of PCARS carries out presidential duties, and provides leadership to the PCARS Board and to the members. The president advances the goals and missions of the club. The president votes on matters brought to the floor at board meetings.

- Acts as a spokesperson for the organization
- Facilitates and prepares agendas for all monthly board and club meetings
- Calls for votes and provides leadership at all board and club meetings
- Obtains prizes for the 50/50 raffle at the monthly club meeting
- Oversees Special Interest Group moderators and meetings
- Appoints members to necessary positions to facilitate club activities such as Field Day Chairman, Net Control Chairman, Technical Committee, and others
- Acts as key holder for the Club Site and hosts activities as needed

Vice President. The Vice President carries out vice presidential duties and provides leadership to the board as needed. The vice president votes on matters brought to the floor at board meetings.

- Serves as a voting party and vital part of leadership at all board and club meetings
- Prepares announcements and provides information to membership in the form of the vice president's report
- Acts as president in the absence of the president
- Arranges guest speakers for all club meetings and schedules other club activities as directed by the president
- Carries out special assignments as requested by the president or the board
- Acts as key holder for the Club Site and hosts activities as needed

Treasurer. The treasurer carries out fiduciary duties and maintains financial records in accordance with the constitution and by-laws and plans and needs of PCARS. The treasurer votes on matters brought to the floor at board meetings.

- Prepares and presents the treasurer's report to include detailed income and expenses at board meetings for a formal vote of approval by the board
- Writes checks for club purchases after obtaining board and/or presidential approval as appropriate
- Reimburses approved expenses and purchases and collect receipts for club records
- Presents financial summary from previous board meeting to club members at club meetings
- Collects money from the secretary for dues, ticket sales, donations, etc.
- Makes regular bank deposits and transfers money to bank accounts from PayPal
- Maintains bank statements, reconciles bank accounts, and monitors PayPal account

- Provides accounting records to trustees for semiannual audit
- Maintains insurance policies for PCARS club location and assets

Trustee. The trustee carries out trustee duties, and assists the president and the board with projects as needed. Trustees vote on matters brought to the floor at board meetings.

- Serves as voting members and vital part of discussions at board meetings
- Prepares announcements and provides information to membership in the form of the trustee's report
- Performs financial audits in June and December, and equipment audits in December
- Carries out special assignments as requested by the president or the board
- Acts as key holders for club site and facilitates activities as needed

There are many other leadership positions in PCARS but the above positions are the ones that are filled by election by the membership. If you think you might be interested in running for any of the offices but need more information to make a decision, talk to any of the present or past members who have filled those positions and they would be happy to talk to you about it.

From the Vice President

Jim, AC8NT PCARS Vice President

I decided during October to visit a few other clubs and get ideas for increasing membership and involvement. I visited clubs in Richmond, VA, Williamsburg, VA, the club at Case Western Reserve University and Skyped with a club in Ireland. After all this visiting I gathered the following points.



All the clubs have problems with membership. Some decided to hold events to attract future young members. These events focused largely on the geek side of the hobby. One event they held was an EME event. Another helped people setup up Raspberry Pi digital rigs using transmitters and receivers built from kits. Results were amazing. Seventy-five percent of the attendees joined the clubs. They also focused on the more social and service side of the hobby, holding fox hunts and getting students to assist in ARES® activities. The Virginia clubs had over 30 students take part and had 20 get their Tech licenses, two taking and passing the General test. A common theme was active involvement in the club and hobby, not just meeting attendance.

The clubs in Ireland is focused on proving to future members that they can get into the hobby. Ireland has strict antenna rules that often prohibit use of outdoor antennas. Clubs have built quite a library of stealth antenna designs and helped to increase club size buy helping hams get fully setup. They often hold events at a ham's home to help get all the equipment working and antennas installed. I have asked for their designs.

Clubs at universities work with STEM clubs and organizations to assist in getting students interested in software and hardware. It is amazing how many middle and high school students enjoy building projects and getting them working. The opportunity here is to use some of the Arduino boards that support 2 meters to create interest in the hobby. This work has its challenges with security checks required and event scheduling. Kids in middle and high school are often involved with sports and other activities that require meetings, often every night of the school week. It is tough to get the parents and kids to give up a day to anything else. I have

Portage County Amateur Radio Service, Inc. (PCARS)

found students have short attention spans and they require activities to get them interested, not just class and club meetings. Again involvement is the key.

To grow our club, we need to better advertise our current events, especially the SIGs and contests. We have more events at PCARS than most other clubs. This is a key element in growing the hobby and our club. I plan to focus to increase interest in both future and current members.

Future Events

QRP Antenna Tuner Build

On November 19th we have scheduled a build day event to build and test a small and inexpensive QRP antenna tuner. This is a project built from a Chinese kit. The instructions that come with the kit are VERY POOR. However, a couple of us have successfully completed the kit and found that it works great. We are prepared to guide others trough the pigeon English to complete the project. We need to make sure we have enough kits, so let me know if you are interested.

Trip to Tiny Circuits

Tiny Circuits is an Akron company building Arduino compatible boards that are very small (hence, Tiny Circuits). I am working with company to set up a visit in December. It will be either the 10th or the 17th. The actual date will be set the first week in November (by the board meeting) so we can work the visit into our busy schedules. This is a great opportunity to see commercial circuit board manufacturing and how the boards are used.

WSPR Build

January 21st we are going to have a build day to build a transmitter for use as a WSPR transmitter. This is a new area for our hobby that involves using very low power transmitter to beacon great distances. It is a digital application using a version of JT65 for communications. I have been having a great deal of fun with this. The transmitter is built from a kit and costs about \$25 dollars. You will also need a Raspberry Pi computer to make this all work. If you are interested, let me know so I can make sure we have enough kits.

December Christmas Party

December 12th we will be having the Christmas Party. It will be catered and at our normal Kent American Legion location. Rick and I will need to know if you plan to attend so we can get the food and table setup right. Each attendee will be asked to bring a gift (under \$10) for exchange. The gift should be marked if it is intended for a ham or non-ham. Looking forward to seeing everyone there.











Schedule of Events

On the calendar for upcoming meetings and activities are:

- November 9th VE Testing at Club Site 7 PM Walk-ins Welcome
- November 12th Akron Min-Maker Faire Akron Public Library noon to 4 pm
- November 14th PCARS Meeting 3D Printers ELECTIONS 50/50 Raffle for Center of Hope
- November 14th PCARS 11th Birthday
- November 19th Building a QRP Tuner at the Club Site
- December Trip to Tiny Circuits in Akron more info to follow
- December 12th Club Christmas Party Buffet Dinner at the Kent American Legion
- January 21st Building a Digital Mode Transmitter & Receiver for WSPR at the Club Site
- February 11th Freeze Your Acorns Off day see flier in this newsletter

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

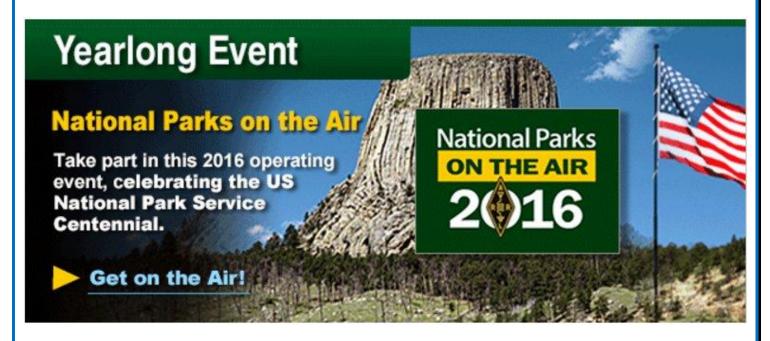


First Tuesday - **Digital** - K8CAV
Second Tuesday - **QRP/CW** - WB8LCD
Third Tuesday - **Antenna** - WA8AR
Fourth Tuesday - **DX & Contest** - W8PT
Fifth Tuesday - **Linux for Hams** - KB8AMZ



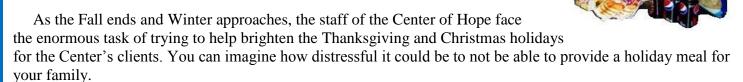
Fourth Thursday - Net Night at the club site - 6:30 pm





Center of Hope - Holiday Donations

PCARS members have become familiar with the Center of Hope, a program of Family & Community Services, Inc. It provides hot meals and distributes food and home products to thousands of our county's less fortunate residents every year. F&CS is also the owner of the building that the houses the PCARS club station.



This is PCARS opportunity to return the favor to the Center. Let's assist the Center of Hope in meeting its goal of helping as many families as possible at Thanksgiving and Christmas. We are asking that all PCARS members who attend the November 14th meeting make a donation of food or, even better, a financial contribution to the Center of Hope.



Donations are tax deductible because the Center is part of a 501(c)(3) organization. Checks can be made payable to "The Center of Hope", or cash will be happily accepted.

In addition, the club proceeds from the 50/50 raffle at the November meeting will be donated by PCARS to the Center of Hope.

Let's show how generous the spirit of amateur radio operators can be by offering our support to an organization that helps so many families in our community. Any items or funds donated at a meeting will be delivered to the Center of Hope.















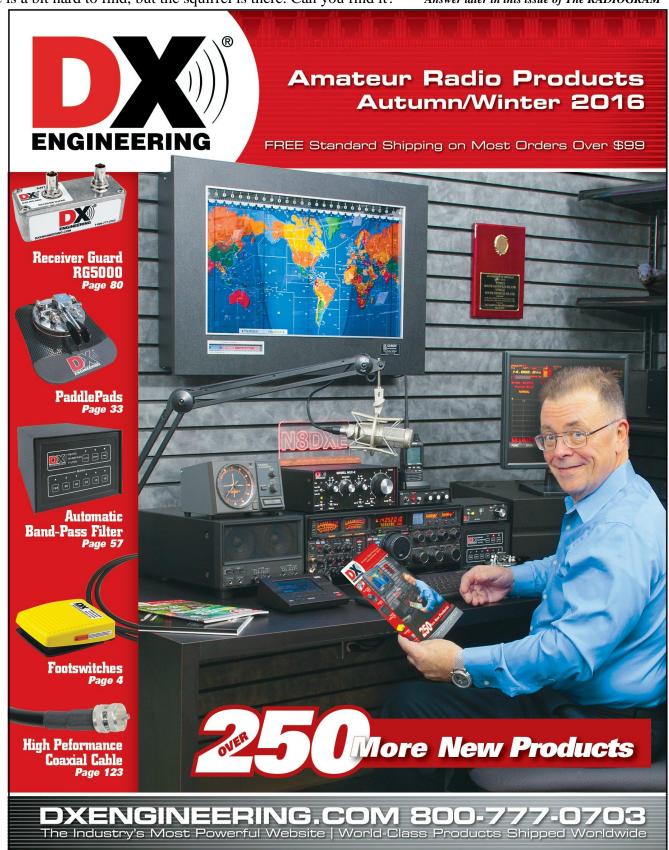




New DX Engineering Catalog & the PCARS Black Squirrel

The new Autumn/Winter 2015 catalog from **DX** Engineering has a black squirrel somewhere on the cover. This one is a bit hard to find, but the squirrel is there. Can you find it?

Answer later in this issue of The RADIOGRAM



PCARS VE Test Sessions

Robert, N8RLG **PCARS VE Team Liaison**

PCARS VE sessions for 2016 are scheduled for 10:00 am on the first Saturday of every even numbered month at the PCARS club site in Ravenna.

December 3^{rd}

AND at the end of the General Study Class on November 9th at 7 pm Open for walk-ins as well



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.
 - o 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.



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

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

PCARS - Wear a patch, use the stickers! See the club





Contest Calendar

November 2016		
ARRL Sweepstakes Contest, CW	2100Z, Nov 5 to 0300Z, Nov 7	
10-10 Int. Fall Contest, Digital	0001Z, Nov 12 to 2359Z, Nov 13	
Kentucky QSO Party	1400Z, Nov 12 to 0200Z, Nov 13	
ARRL Sweepstakes Contest, SSB	2100Z, Nov 19 to 0300Z, Nov 21	
CQ Worldwide DX Contest, CW	0000Z, Nov 26 to 2400Z, Nov 27	

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

ARRL Sweepstakes - Can you get a Clean Sweep?

From the ARRL



In a few short days, operators across all 83 ARRL and Radio Amateurs of Canada (RAC) sections (http://www.arrl.org/section-abbreviations) will take to the airwaves to compete in the first of two ARRL November Sweepstakes events. Always a fall favorite "Sweeps" is the longest-running "domestic" contest. The CW event is

November 7-9, while the SSB event is November 21-23. The action on both weekends gets underway at 2100 UTC Saturday and runs through 0259 UTC Monday (Sunday evening in continental US time zones).

As veteran Sweeps hands already know, the exchange for this operating event is a bit more involved than it is for most other contests. Strange terms such as "precedence" and "check" - while very familiar to old timers and traffic operators - may seem confusing at first to newcomers. The exchange goes like this: Call sign of the station worked, consecutive serial number (NR) starting with 001, precedence (PREC) - a letter that indicates your operating category; see the rules), your call sign, check (CK) - the last two numerals of the year you were first licensed, and the two-letter or three-letter abbreviation of your ARRL or RAC section (SEC).

All popular logging programs include a template for ARRL November Sweepstakes. Be sure to use the latest version of your logger.

The holy grail of Sweepstakes is to earn a "Clean Sweep" by working at least one station in all 83 sections. Attain this elite level and you qualify to purchase a highly desired Clean Sweep mug for your accomplishment! Also, the Sweepstakes certificate of every op making a Sweep will include a "Clean Sweep" sticker. Making at least 100 QSOs, qualifies the operator for a Participation Pin. Section and Division recognition awards for each operating category also are available. Details are on the ARRL November Sweepstakes web page. Check out the Operator Guide (with rules) for 2015 at: http://www.arrl.org/files/file/Contest-Operating-Guides/2015/2015%20ARRL%20November%20Sweepstakes%20Package%20-%2030%20Sep%202015.pdf Be sure to read the rules (http://www.arrl.org/contest-rules) for all ARRL contests too.

Logs are due 15 days after the event is over. ARRL still accepts paper logs, but electronic Cabrillo logs are submitted via e-mail for CW use: sscw@arrl.org for your SSB entry use: ssphone@arrl.org. Send paper logs to ARRL November Sweepstakes, 225 Main St, Newington, CT 06111. Those logging on paper also may want to consider WA7BNM's online Cabrillo converter (http://www.b4h.net/cabforms/), which lets the operator manually enter the logging data to create a Cabrillo file. Submitting logs electronically enhances the quality of the log-checking process and permits more rapid publication of results.

Portage County Amateur Radio Service, Inc. (PCARS)

Report on the PA QSO Party



John, KD8MQ

2016 marks my 31st year of participating in the

PA QSO Party. Practically every year, I've been participating from somewhere in PA. Allen, WI8T, and later Ben, KD8KMQ have accompanied me on most of these adventures.



The fun began in 1986 when I participated from home. After hearing Dave, K3SK (then KC3CL) talk about the PAQP, Allen, WI8T, and I decided to have a go at it. We tent camped in Indiana County that year. I'll tell you that October in the hills of western Pennsylvania are not fun for camping.

Years went by, and QTHs improved. We've operated Indiana County from an open pavilion, and the Clarion/Forest County line from a cabin in Cook Forest. We've done 160 Meters from Butler County using a counterpoise strung out along the road, and Armstrong County from an ATV Park. For the last several years, John, N8PLA has invited us to operate from his family's cabin in northern Jefferson County.



But the thing that never changes is the fun we've had over the last 30 years. At one time we held two records, Indiana County, and Armstrong County Multi-op. We've since been knocked out of the top spot in Indiana, but the Armstrong record still stands.

This year, we came into PA a couple days early, and even got to do some sightseeing in the Sigel, PA area. The area is rich in history, and a cool place to explore.

In years past, the trusty G5RV has proven to be my go-to antenna of choice whenever I'm in a limited space situation, and need to put out a decent signal. But, this weekend was challenge.

I never intended to use the G5RV as more than a backup solution this year, but circumstances required that it be pressed into service. At first, all seemed well; the antenna went up well, and all was set up inside of 20 minutes. No problems arose until the next day.

The issues I ran into consisted of not being able to tune all bands. I was able to adjust the length of the antenna, and get either 80, or 40. But that came at a cost; TVI! RF was getting into the video cable between the DVD player, & the TV, and blanking out the picture & sound.

To make a long story short, I tried various solutions, finally settling on the most drastic one. We took the G5RV apart, and by cannibalizing my 20 Meter Ground Plane, re-built it as an 80/40 dipole. So all was now A-OK, right? Wrong!



We still had the TVI issue. It was ultimately solved by re-seating the video connections on the TV, and DVD player. The issue appeared to be dirty connections on the video cable that was allowing an inlet for RF. Lesson learned? Always check the easy stuff first.

So on to the contest itself. We began the contest on time, and no issues were noted with the antennas, or radio systems. Some slight TVI still existed while viewing the local over the air programming, but this was largely ignored.

40 Meters this year did not go long as in years past, and was an absolute dream to work! After midnight, the



band quieted down nicely, and the DX came rolling in. I worked a few Arizona stations who were involved in the Arizona QSO Party, but the high point of the evening for me was working Laszlo, OM2VL on 40 Meter SSB.

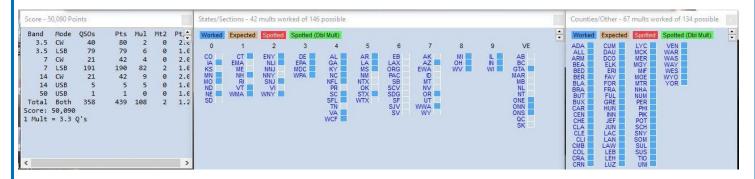
Just a note for CW ops out there, since when is it no longer a courtesy to slow down for slower stations? I heard a station in Greene County who was running on 40 Meters, at about 10WPM, and very few operators were slowing down for him.

After the first day, I had all counties worked except 4; Clarion, Cambria, Mifflin, and Union. All four showed up the next morning, and I had my clean sweep. I continued to operate long enough to better the 2015 score by 10,000, then tore down and headed for Ohio a bit after noon.

This year was the most CW contesting I've done in a long time, and it was a lot of fun. The only regret was that we didn't bring an antenna for 160 Meters.

I'm definitely looking forward to next year.

BTW, I also do a PA QSO website for those who like to do Mobile, Portable, Rover operations, and want historic data from individual counties. It can be found at kd8mq.net/pqp.





Vanity Call Sign Rule Change Petition

From the ARRL



The FCC is inviting comments on a Petition for Rule Making (RM-11775) from a Nevada radio amateur that seeks changes to the rules governing the Amateur Radio Vanity Call Sign Program. Christopher LaRue, W4ADL, of North Las Vegas, is proposing that any licensee obtaining a vanity call sign be required to keep it for the full license term. LaRue contends in his petition that excessive and frequent vanity call sign filings are hampering the ability of other qualified licensees to obtain vanity call signs in one of the more desirable 1 x 2 or 2 x 1 formats. LaRue said that since the FCC dropped the fee to file for a vanity call sign, some applicants are taking advantage by regularly obtaining new call signs, thereby keeping them out of circulation.

The petition can be found on the web in PDF format at:

https://ecfsapi.fcc.gov/file/1004220986407/Petition%20.pdf .

"Some are changing call signs almost monthly, just to keep the newer code-free Extra class operators from obtaining a shorter call sign," he said in his petition. "I even saw an older operator that said he does it all the time and has not even owned a radio in over 6 years. When I looked him up, he has had 16 different [call signs] in 18 months."

LaRue said his proposed minor rule change would require any licensee applying for and obtaining an Amateur Radio vanity call sign "be required to keep it for the duration of the license, which is currently 10 years."

He said this would "alleviate a lot of the stress on the ULS system and manpower requirements" at the FCC. "It will also keep inactive amateurs from changing call signs regularly, thereby tying up call signs for 2 years after dismissal of said call."

Interested parties may comment using the FCC Electronic Comment Filing System (ECFS) at, https://www.fcc.gov/ecfs/ . Comments are due within 30 days of the October 26 posting date.



OSPOTA 2016 - Results

OSPOTA 2016 is in the history books. From the comments we received about the contest it seems that everyone had lots of fun visiting the beautiful Ohio State Parks and taking the opportunity to play radio at the same time, even if the weather did not cooperate.

Hats off to all that participated. The set up at the Ohio State Parks varied from one person at a table trying to keep dry and warm to multiple operators and multiple radios set up in shelters with all kinds of food and supplies to make the day even more fun and comfortable. Storms and lightning put a slight dampening in this year's activities.

> Checking the Logs John, KB8UHN, Joe W8KNO, Chuck W8PT, John KD8MQ



Once all of the logs were submitted, the OSPOTA Committee members got together at the Portage County



Amateur Radio Service club site and spent an entire Saturday going over the logs. The final results are out and you can see the complete results on the next few pages of this newsletter.

If you were in the top three in your category, you can visit the next PCARS meeting on November 14th and pick up your certificate. If you plan on being there, drop me an e-mail (kb8uuz@portcars.org) and let me know, so I can have your certificate ready to present to you. If you cannot make it to the PCARS meeting, the certificate will be mailed to you.

On behalf of the OSPOTA Committee, **congratulations to the stations wining a certificate** - and **congratulations to all that participated**.

Start making your plans for the **Tenth Annual Ohio State Parks On The Air** which will be on September 9, 2017.

The committee is working on making the $\underline{10^{th}}$ annual OSPOTA a lot of FUN for everyone involved in activating an Ohio State Park. Stay tuned - news will be posted on the OSPOTA Yahoo Group.





Take care & 73,

Tom, KB8UUZ OSPOTA Chairman

Portage County Amateur Radio Service, Inc.







Ohio State Parks On The Air Contest - September 12, 2016

The 2016 Ohio State Parks On The Air (OSPOTA) contest is in the history books. The logs have been received and reviewed and the results are out.

First - On behalf of the OSPOTA contest committee: CONGRATULATIONS to the WINNERS!!

Second - CONGRATULATIONS to ALL that participated !!

This year's contest was hampered by foul weather throughout much of Ohio but a number of you got out there and got your stations on the air. The true amateur radio spirit was shown in being able to overcome weather and other difficulties to set up a portable station and make contacts. Your efforts are applauded.

Each year OSPOTA is growing and more amateur radio operators both in and out of Ohio State Parks are becoming involved.

This particular contest is not only a fun event for most amateur radio operators, it helps to promote the adaptability of hams to showcase their expertise in being able to set up a portable communications center and make contacts.

What better way to show the general public that amateur radio operators can be called upon during an emergency when the need arises? So, this is not only a contest, it's also a practical exercise to keep our gear ready for when an emergency occurs and we may be called upon to assist in emergency communications.

The Portage County Amateur Radio Service (PCARS) - located in Ravenna, Ohio is proud to sponsor this contest and we thank you for your participation.

Visit PCARS on the web at www.PORTCARS.org

We'll be looking for you again on September 9, 2017 for OSPOTA 2017 !! 2017 will be the <u>TENTH</u> annual OSPOTA !!! Until then - Take care & 73



Greetings to the OSPOTA 2016 (Ohio State Parks On The Air) Participants

From the Portage County Amateur Radio Club's OSPOTA Committee, we would like to extend our appreciation for your participation in the eighth annual Ohio State Parks On The Air contest. You are now part of OSPOTA history and our hope is that it will be a long and rewarding one.

The OSPOTA contest was conceived with three main goals in mind: **1.** Promoting public awareness of ham radio and Ohio's beautiful State Park system; **2.** Contribute to the recognition that Ohio has a very diverse and wonderful ecology; and **3.** Promote camaraderie within the ranks of Ohio's Amateur Radio Operators. It has been with your participation that we believe those goals were achieved.

To those of you who placed in the top three spots in each category, congratulations on your efforts. You deserve your awards for your operating skills. It was a bit windy and wet during OSPOTA 2016. We are counting on better weather and having everyone do even better in OSPOTA 2017.



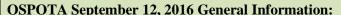
So until September 9, 2017 - **73**!

Tom - KB8UUZ, OSPOTA Chairman Chuck - W8PT, Joe - W8KNO, John - KD8MQ, John - KB8UHN OSPOTA Committee Members



OSPOTA is sponsored by the Portage County Amateur Radio Service, Inc. (PCARS)

PCARS Web Site: http://www.portcars.org



50 parks activated 9 parks activated did not submit log 67 logs submitted 13 out of state logs submitted 24 Clubs represented Top Score this year - 9,790

727 QSOs on 80 Meters 1142 QSOs on 40 Meters 319 QSOs on 20 Meters

(QSO Stats from cabrillo files only)

24 Participating Clubs

Alliance Amateur Radio Club	Hamilton Amateur Radio Club	Milford Amateur Radio Club
Ashtabula County Amateur Radio Club	Highland Amateur Radio Association (2)	Portage County Amateur Radio Service (5)
Athens County Amateur Radio Association	Hocking Valley Amateur Radio Club	Pottstown Area ARC (PA)
Bellbrook Amateur Radio Club	Jackson County AMC	Shelby County ARES (2)
Cambridge Amateur Radio Association	Lakeland Amateur Radio Club (FL)	Sunday Creek Amateur Radio Federation
DeForest Amateur Radio Club	Lancaster-Fairfield County Amateur Radio Club	Triangle Amateur Radio Club
Fulton County Amateur Radio Club	Mahoning Valley Amateur Radio Association	Warren Amateur Radio Club
Goodyear Amateur Radio Club	Medina 2 Meter Group (3)	Warren County Amateur Radio Association

OSPOTA 2016 - Scores

Multi Op-Multi-Radio-High Power - In a Park		
Call Park Name Score		Score
-	No entries in this category	-

Multi Op-Multi Radio-Low Power - In a Park		
Call	Park Name	Score
AB8DD	Kiser Lake - KLK	9790
W8DGN	John Bryan - JOB	5940
W8MRC	East Fork - EFK	5929
K8HO	Rocky Fork - RFK	4696
K8IV	Tinkers Creek - TCK	3420
W8VP	Blue Rock - BLU	2336
N8TUW	Great Seal - GSL	2262
K8W	Wingfoot Lake - WLK	1949
K8GE	Adams Lake - ADA	1845
W8VTD	Mosquito Lake - MST	1495
K8BLP	Guilford Lake - GLK	1140
WC8EMA	Caeser Creek - CAE	1083
K8QIK	A.W. Marion - AWM	920
K8BXQ	Harrison Lake - HLK	816
K8LGN	Lake Logan - LOG	735
K8CY	Geneva - GEN	271
W8QLY	Lake Milton - LML	Check Log

Multi Op-Single Radio-High Power - In a Park		
Call Park Name Score		
KC8AAV	Burr Oak - BUR	2577

Multi Op-Single Radio-Low Power - In a Park		
Call	Park Name Score	
W8UKE	Strouds Run - SRN	2371
KC8OKJ	Pike Lake - PLK 203	
W8AJT	Hueston Woods - HUE	403
K8ZUK	Lake Loramie - LOR	144
KA8OCG	Buck Creek - BCK	Check Log

Single Op-High Power - In a Park		
Call Park Name Score		Score
N8OCJ	Deer Creek - DEE	793

30 October 2016





Single Op-Low Power - In a Park		
Call	Park Name	Score
K8MD	Middle Bass Island - MBI	1929
NF8O	Malabar Farm - MAL	1856
KD8BBK	Salt Fork - SFK	1801
K8FH	Findley - FIN	1761
WU8R	Lake Alma - LAL	1483
KB8UHN	Barkcamp - BAR	1465
KD8MQ	Beaver Creek - BEA	1169
W8WDS	Indian Lake - ILK	529
N8SUZ	Jackson Lake - JAC	353
NF8U	Muskingum River - MUS	297
N3JJT	West Branch - WBR	118
K8FEY	Pymatuning - PYM	108
N8OZB	Kiser Lake - KLK	91
KD8HHG	Scioto Trail - STR	81
AI8P	Portage Lakes - POR	16
AI8P	Quail Hollow - QHL	16
AI8P	West Branch - WBR	16
AI8P	Wingfoot Lake - WLK	16
AI8P	Lake Milton - LML	Check Log
WB3AFS	South Bass Island - SBI	Check Log
N3VQW	Sycamore - SYC	Check Log

In Ohio - Not In Park				
Call	Score			
W8GTS	727			
W8FA	420			
KB8UUZ	348			
W8RGE	324			
N8REQ	289			
W8BVH	81			
N4DLR	67			
K3YP	61			
W8EOT	26			

Framed Certificate
Certificate

Overall High Score AB8DD - 9790

Outside of Ohio				
Call	Call Transmitting From			
N4NY	South Carolina	1788		
WN4AFP	South Carolina	1545		
AH6AX	Maryland	1017		
N3CU	Pennsylvania	528		
W4CHI	North Carolina	506		
N3HWH	Pennsylvania	324		
KD2GXN	New York	281		
N8YHA	Wisconsin	272		
N3KN	Virginia	221		
WE5EE	Louisiana	106		
KC0HPM	Missouri	81		
KK4FEM	Florida	50		
WZ6ZZ	WZ6ZZ California			



Portage County Amateur Radio Service, Inc.







Ohio State Parks Activated during the OSPOTA Contests: 2008-2016 $_{\text{Page 1 of 2}}$

Ohio State Park	ID	08	09	10	11	12	13	14	15	16
Adams Lake	ADA					Χ	X	Χ		Х
Alum Creek	ALU			Χ	Χ			Χ	Χ	
A.W.Marion	AWM	Χ	Х	Χ				Χ		Χ
Barkcamp	BAR		Х			Х	Х	Χ	Х	Χ
Beaver Creek	BEA			Χ			X	Χ	Χ	Χ
Blue Rock	BLU	Χ		Χ		Χ	X		Χ	Χ
Buck Creek	BCK			Χ		Х	Χ	X	Χ	Χ
Buckeye Lake	BKL	X	X	Χ	X	Χ	Χ			
Burr Oak	BUR	Х	Х	Χ		Х	Х	Χ	X	Χ
Caesar Creek	CAE	Х		Χ	Х	Х	Х	Χ	Х	Х
Catawba Island	CAT					Χ	Χ	Χ	Х	
Cleveland Lakefront	CLE	Х		Х	Х	Х	N2	•	-	-
Cowan Lake	COW	Х	Х	Х	Х	Х		Χ	Х	
Deer Creek	DEE		Х	Х	Х	Х	Χ	Χ	Х	Х
Delaware	DEL	X		Χ	Χ		Χ			
Dillon	DIL						X	X		
East Fork	EFK				Х	Х	Х	Χ	Х	Х
East Harbor	EHB			X	X	X	X	X	Χ	
Findley	FIN	X	X	Х	Х	Х	Χ	X	Х	X
Forked Run	FOR		X	Χ	Χ			X		
Geneva	GEN			Х	Х	Х	X	Χ	Х	Х
Grand Lake St. Marys	GLM	Х	Х	Х	Х	Х	Χ	Χ	Х	Х
Great Seal	GSL		Х	Х	Х	Х	Х	Χ	Х	Χ
Guilford Lake	GLK	Χ		Χ	Χ	Χ	Χ	Χ	Χ	Χ
Harrison Lake	HLK					Χ	Χ	X	Χ	Χ
Headlands Beach	HEA			X		Χ	Χ	X	Χ	X
Hocking Hills	HOC	X		Х	X	Х				
Hueston Woods	HUE		Х	Х	Х	Х	Χ	Χ	Х	Х
Independence Dam	IDM				Х	Χ	Х		Χ	
Indian Lake	ILK	Х		Х	Х	Х		Χ	Х	Х
Jackson Lake	JAC	Χ						X	Χ	Χ
Jefferson Lake	JEF					Χ	Χ	X	Χ	
John Bryan	JOB	Χ		Χ	Χ	Χ	Χ	X	Χ	Χ
Kelleys Island	KEL	Χ				Χ	Χ		Χ	
Kiser Lake	KLK	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ
1										

Lake Alma

Lake Hope

X

X

X

X

LAL

LHO

Ohio State Parks Activated during the OSPOTA Contests: 2008-2016 $_{Page\ 2\ of\ 2}$

Ohio State Park	ID	08	09	10	11	12	13	14	15	16
Lake Logan	LOG			X	X	X	X	X	X	X
Lake Loramie	LOR			X	Χ	X	X	X	Χ	X
Lake Milton	LML	X		Χ	Χ	Χ	Х	Χ	Χ	Χ
Lake White	LWT		Х	Χ	Χ	Х	Х	N3	N3	N3
Little Miami	LMI			Χ	Χ	Х	Х	Х		
Madison Lake	MLK	Χ		Χ		Х		Х	Х	
Malabar Farm	MAL			Х	Χ	Х	Х	Х	Х	X
Marblehead Lighthouse	MHD					Х	Х	Х		
Mary Jane Thurston	MJT	Χ		Х	Χ		Х	Χ	Х	
Maumee Bay	MBY			Χ			Χ	Х		
Middle Bass Island	MBI						Χ	Χ		Χ
Mohican	MOH			Χ	Χ	Χ	Χ	Χ	Χ	Χ
Mosquito Lake	MST	Χ	Χ	Χ	Χ	Χ	Χ	Х	Χ	Χ
Mt. Gilead	MTG	Χ			Χ		Х	Х	Χ	
Muskingum River	MUS			Χ		Χ	Χ	Х	Χ	Χ
Nelson Kennedy Ledges	NKL			Χ	Χ		Х	Χ		
North Bass Island	NBI						Χ			
Oak Point	OPT							Χ		
Paint Creek	PTC			Χ	Χ	Χ		Χ	Χ	
Pike Lake	PLK			Χ	Χ	Х	Х	Χ	Х	Χ
Portage Lakes	POR	Χ		Χ	Χ	Χ	Χ	Χ	Χ	Χ
Punderson	PUN	Χ		Χ		Х	Х	Χ	Х	Χ
Pymatuning	PYM	Χ		Χ	Χ	Χ	Χ		Χ	Χ
Quail Hollow	QHL	Χ	Х	Χ		Х	Х	Χ	Х	Χ
Rocky Fork	RFK			Χ	Χ	Χ	Χ	Χ	Χ	Χ
Salt Fork	SFK	Χ		Χ	Χ	Х	Х	Х		Χ
Scioto Trail	STR		Х	Χ	Χ	Χ	Χ	Х	Χ	Χ
Shawnee	SHA				Χ	Х	Х		Х	Χ
South Bass Island	SBI	Χ					Χ	Х	Χ	Χ
Stonelick	STO	Χ	Х	Χ	Χ	Х		Χ	Х	Χ
Strouds Run	SRN	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ
Sycamore	SYC	Χ		Χ	Χ	Х	Х	Χ		Χ
Tar Hollow	TAR			Χ	Χ	Х	Х	Х	Χ	Χ
Tinker's Creek	TCK	Х		Х	Х	Χ	Χ	Х	Х	Χ
Van Buren	VAN				Χ	Χ	Χ	Χ	Χ	Χ
West Branch	WBR	Х		Х	Х	Χ	Х	Х	Х	Χ
Wingfoot Lake	WLK	N1	Х		Χ	Χ		Χ	Χ	Χ
Wolf Run	WRN	Х	Х	Х	Х	Х	Х	Х	Х	Χ
		36	20	57	50	60	63	64	55	50

N1-Wingfoot Lake became a State Park in 2010 N2-Cleveland Lakefront was dropped as a State Park in mid-2013 N3-Lake White State Park was closed by ODNR to work on leaking earthen dam-3 Sept 2014

Not all activated parks sent log in for scoring.



Activated Parks 2008-2016

EmComm

Jim, KC8PD/AAF5PD
Radio Officer, Portage County OHS/EM
Communications Unit/RACES

We received a question from a Mr. Richard Feder from Fort Lee, New Jersey, asking about the **different types of net operations**.

Well Richard, there are two primary types, formal and informal. Informal nets may or may not have a net control station (NCS), formal nets always do and we call those directed nets. Directed nets will almost always be what you hear if you monitor an emergency communications or public service net.



Formal nets normally follow a prescribed format. The format may include a net prologue, or net opening statement, check-in and check-out procedures, standardized traffic (digital or voice) procedures, use of procedural words and phrases (also known as prowords), as well as other rules for managing the overall net operations. Adherence to these procedures is sometimes referred to as net discipline.

All NCS operators in these formal nets are expected to follow the same procedures. This provides for more efficient and consistent net operations and helps reduce the risk of error in the passing of traffic.

Locally, the Portage County Communications Unit nets works to keep its nets as disciplined as possible. Why? Well the more that CU members practice those operational and procedural skills on the air the more likely that they are to perform at a higher level during real-time events. When stress is high during an emergency, the ability to operate calmly and comfortably using those skills learned during well disciplined nets is invaluable.

ARES® of Portage County also follows a regular net routine but in a somewhat looser format. The idea remains the same, though: get into a formal directed net as either the NCS or a participant and learn the routine.

Sometimes during either CU operations or ARES[®] public service nets you may hear the net operate without an NCS. Those undirected nets usually are used when the number of stations within the net is small enough that it is more effective for them to contact each other directly or that the operation does not anticipate a busy net with a lot of traffic and station-to-station contact is sufficient.

Nets like the PCARS weekly club net are informal directed nets, usually with a social purpose rather than training. There is a net script although the NCS may choose to vary from it and the management of the net, including check-ins and comments, is at the discretion of the NCS. Still, participation in those nets (especially as NCS) is a great way to become more comfortable with net operations.

We hope that this helps explain the different types of nets...

Wait, we just received an update from Richard and it turns out he was concerned about **knit** operations.

Never mind...

Want to know more about knit operations? Go to: http://www1.rmit.edu.au/courses/046094 RMIT University: Course Title: Perform Knit Operations 2 - Credit Points: 12



Spring Forward - FALL BACK

It is that time of year again - Sunday, November 6th at 2:00 am (local time) - Turn your clocks BACK one hour (Fall Back). We go from Eastern Daylight Saving Time to Eastern Standard Time.



UTC (GMT or Zulu Time) does NOT change.



So, follow me on this..... at 2:00 am (0200) local it will be 0600 UTC or 4 hours behind UTC.

We turn our clocks back one hour and that makes it 1:00 am EST (0100) - our local time. It will **still be 0600 UTC**. We are now **5** hours behind UTC time.

You get to sleep in one more hour on Sunday morning. But don't worry, they will take that hour back again in Spring when we turn our clock ahead one hour (Spring Forward).

Recent Licensing Statistics

From the ARRL

The following report of FCC licenses issued is supplied by Maria Somma, AB1FM, ARRL VEC Manager. Somma notes that the 2016 licenses issued through the third quarter are up 5% from 2015's totals and are approaching 2014's record-setting pace. If this trend continues, we should see 32,000 new Amateurs and 11,000 upgrades by the end of the year!

Here's the breakdown of exam activity through the third quarter by license level:

NEW and UPGRADED FCC LICENSES ISSUED PER YEAR BY QUARTER						
FCC License Activity	2011 3rd quarter	2012 3rd quarter	2013 3rd quarter	2014 3rd quarter	2015 3rd quarter	2016 3rd quarter
Technician	15,974	18,132	19,195	22,781	20,526	22,170
General	7,742	7,994	7,372	8,401	8,572	8,105
Extra	2,827	2,564	2,326	2,913	2,914	3,474
Total Issued	26,543	28,690	28,893	34,095	32,012	33,749



Hamfest Calendar

11/06/2016 - WACOM HAMFEST 2016 - Location: Washington County Fairgrounds - 2151 North Main Street - Washington, PA 15301 - Website: http://www.wacomarc.org/hamfest.html Public Contact: Bud Plants, N3TIR - 236 Chambers Ridge Road West Alexander, PA 15376 - Phone: 724-350-6745 - Email: bud@n3tir.com

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



PCARS Thursday Net Control

Tom, WB8LCD

Thank you all for helping with this! Anytime you are unable to take the net, please give me as much advance warning as possible!





November				
3	WB8LCD			
10	KB8UUZ			
17	KB8UHN			
24	Holiday - no net			

December			
1	K8CAV		
8	N8QE		
15	K8IV		
22	NR8W		
29	WB8LCD		















SKYWARNTM Recognition Day



From the ARRL ARES® Newsletter

The annual SKYWARNTM Recognition Day (SRD) will be held this year on **Saturday, December 3, 2016**. This is the day when Amateur Radio operators visit National Weather Service (NWS) offices and contact other



operators around the world. The purpose of the event is to recognize the vital public service contributions that Amateur Radio operators make during National Weather Service severe weather warning operations. It also strengthens the bond between Amateur Radio operators and the local National Weather Service. The event is co-sponsored by ARRL and the National Weather Service. Please remember that this is not a contest, so no scoring will be computed.

Object: For all radio amateur stations to exchange QSO information with as many National Weather Service stations as possible on 80 through 10 meters, including 6 and 2 meters bands and the 70 centimeter band. Contacts via repeaters are permitted.

Date: National Weather Service stations will operate December 3, 2016, from 0000 - 2400 UTC.

Exchange: Call sign, signal report, QTH, and a one or two-word description of the weather occurring at your site.

Modes: National Weather Service stations will work various modes including SSB, FM, AM, RTTY, CW and

PSK31. While working digital modes, special event stations will append

"NWS" to their call sign (e.g. NØA/NWS).

Station Control Operator: It is suggested that during SRD operations, a non-National Weather Service volunteer who is a licensed radio amateur serve as a control operator for the station that is set up at a NWS office.

New this year: There will be a new log submission process introduced this year, and W1AW at ARRL Headquarters is scheduled to be on the air for SKYWARN Recognition Day. More details will be released later. More information about this event may be found here (http://www.wrh.noaa.gov/mtr/hamradio/).





Happy Birthday PCARS Members

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

AF1K	Rich	Kuster
N8BI	Jack	Comer
KD8SJB	Richard	Kurta
WD8PME	Robert	Posar
	Denise	Renfroe
N8WLE	Nick	Rothermel
K8FEY	Bob	Hewett
W8RID	Robert	Davet
KD8UXJ	Eric	Shane
KB8UUZ	Tom	Parkinson
KD8RHW	Edwin	Elias

AC8PR	Keith	Johnson
KB30QV	Kristen	Andrews
WA8CCU	Al	Nagy
K3LR	Tim	Duffy
K3GP	George	Proudfoot
KD8ERY	Susan	Larrick
KD8WZS	William	Smith
KD8ZXB	Janet	Sheppard
N8ATV	Jerry	Jarze
N8SY	Scott	Yonally





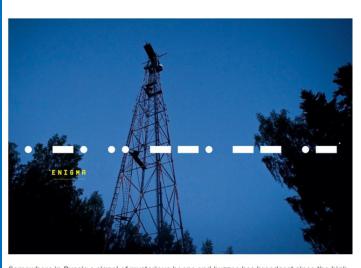






Inside the Russian Short Wave Radio Enigma

Peter Savodnik



Somewhere in Russia a signal of mysterious beeps and buzzes has broadcast since the highwater days of the Cold War. But why? Photo: Sergey Kozmin



FROM A LONELY rusted tower in a forest north of Moscow, a mysterious shortwave radio station transmitted day and night. For at least the decade leading up to 1992, it broadcast almost nothing but beeps; after that, it switched to buzzes, generally between 21 and 34 per minute, each lasting roughly a second—a nasally

foghorn blaring through a crackly ether. The signal was said to emanate from the grounds of a voyenni gorodok (mini military city) near the village of Povarovo, and very rarely, perhaps once every few weeks, the monotony was broken by a male voice reciting brief sequences of numbers and words, often strings of Russian names: "Anna, Nikolai, Ivan, Tatyana, Roman." But the balance of the airtime was filled by a steady, almost maddening, series of inexplicable tones.

The amplitude and pitch of the buzzing sometimes shifted, and the intervals between tones would fluctuate. Every hour, on the hour, the station would buzz twice, quickly. None of the upheavals that had enveloped

Russia in the last decade of the cold war and the first two decades of the post-cold-war era—Mikhail Gorbachev, perestroika, the end of the Afghan war, the Soviet implosion, the end of price controls, Boris Yeltsin, the bombing of parliament, the first Chechen war, the oligarchs, the financial crisis, the second Chechen war, the rise of Putinism—had ever kept UVB-76, as the station's call sign ran, from its inscrutable purpose. During that time, its broadcast came to transfix a small cadre of shortwave radio enthusiasts, who tuned in and documented nearly every signal it transmitted. Although the Buzzer (as they nicknamed it) had always been an unknown quantity, it was also a reassuring constant, droning on with a dark, metronome-like regularity.

But on June 5, 2010, the buzzing ceased. No announcements, no explanations. Only silence.

The following day, the broadcast resumed as if nothing had happened. For the rest of June and July, UVB-76 behaved more or less as it always had. There were some short-lived perturbations—including bits of what sounded like Morse code—but nothing dramatic. In mid-August, the buzzing stopped again. It resumed, stopped again, started again.

Then on August 25, at 10:13 am, UVB-76 went entirely haywire. First there was silence, then a series of knocks and shuffles that made it sound like someone was in the room. Before this day, all the beeping, buzzing, codes, and numbers had hinted at an evil force hovering on the airwaves. Now it seemed as though the wizard were suddenly about to reveal himself. For the first week of September, transmission was interrupted frequently, usually with what sounded like recorded snippets of "Dance of the Little Swans" from Tchaikovsky's Swan Lake.

On the evening of September 7, something more dramatic—one listener even called it "existential"—transpired. At 8:48 pm Moscow time, a male voice issued a new call sign, "Mikhail Dmitri Zhenya Boris," indicating that the station was now to be called MDZhB. This was followed by one of UVB-76's (or MDZhB's) typically nebulous messages: "04 979 D-R-E-N-D-O-U-T" followed by a longer series of numbers, then "T-R-E-N-E-R-S-K-I-Y" and yet more numbers.

Just a few years before, such a remarkable development on a shortwave station would have been noted by only a tiny group of hobbyists. But starting the previous June—after the first, mysterious outage—a feed of UVB-76 had been made available online (UVB-76.net), cobbled together by an Estonian tech entrepreneur named Andrus Aaslaid, who has been enthralled by shortwave radio since the first grade. "Shortwave was an early form of the Internet," says Aaslaid, who goes by the nickname Laid. "You dial in, and you never know what you're going to listen to." During one 24-hour period at the height of the Buzzer's freak-out in August 2010, more than 41,000 people listened to Aaslaid's feed; within months, tens of thousands, and then hundreds of thousands, were visiting from the US, Russia, Britain, the Czech Republic, Brazil, Japan, Croatia, and elsewhere. By opening up UVB-76 to an online audience, Aaslaid had managed to take shortwave radio—one of the most niche hobbies imaginable—and rejuvenate it for the 21st century.

Today, the Buzzer's fan base includes Kremlinologists, anarchists, hackers, installation artists, people who believe in extraterrestrials, a former Lithuanian minister of communications, and someone in Virginia who goes by the moniker Room641A, a reference to the alleged nerve center of a National Security Agency intercept facility at an AT&T office in San Francisco. ("I am interested in 'listening," Room641A tells me by email. "All forms of it.") All of them are mesmerized by this bewildering signal—now mostly buzzing, once again. They can't help but ponder the significance of it, wondering about the purpose behind the pattern. No one knows for sure, which is both the worst and the best part of it.

As you might expect, the Buzzer's history is murky. Roughly 30 years ago, it's said, the Soviets built a radio station near Povarovo (the accent is on the second syllable), a 40-minute drive northwest of Moscow. At the time, Leonid Brezhnev was still alive, the Kremlin presided over an intercontinental empire, and Soviet troops

Portage County Amateur Radio Service, Inc. (PCARS)

were battling the mujahideen. After the Soviet Union collapsed in 1991, it was revealed that Povarovo was controlled by the military, and that whatever happened there was top-secret.

Shortwave radio aficionados developed various hypotheses about the role of the station in Russia's sprawling, military-communications network. It was a forgotten node, one theory ran, set up to serve some function now lost deep in the bureaucracy. It was a top-secret signal, others believed, that transmitted messages to Russian spies in foreign countries. More ominously, countered another theory, UVB-76 served as nothing less than the epicenter of the former Soviet Union's "Dead Hand" doomsday device, which had been programmed to launch a wave of nuclear missiles at the US in the event the Kremlin was flattened by a sneak attack. (The least sexy theory, which posited that the Buzzer was testing the thickness of the ionosphere, has never enjoyed much support.)



Estonian tech entrepreneur Andrus Aaslaid runs an Internet relay for UVB-76 out of his attic office. Photo: Alver Linnamägi

Before Aaslaid's Internet relay and the events of 2010, the dedicated trackers of UVB-76 probably numbered no more than a thousand. Some had been listening in their spare time since the 1980s, holed up in attics, garages, basements, and cluttered offices. Many spent their days working for large organizations—insurance companies, telecommunication conglomerates, militaries, universities. They lived in West Germany, Britain, the Netherlands, the US. Some hesitated to disclose their locations to fellow listeners; others used pseudonyms or handles. Before the fall of Communism, many of them actually believed they were in danger, assuming that they could be tracked (through technological methods that were never quite clear) by the same shadowy forces—KGB agents or radio engineers at the CIA or MI6 or Mossad—that controlled the stations they obsessed over. The listeners often thought they might have unearthed something top-secret, that there were files at foreign spy agencies with their names on them. They loved that they didn't know what they were listening to and were fascinated by the unending strangeness of this persistent, mindless, clandestine, evil beeping.

"It was thrilling," says Ary Boender, 57, a financial consultant who lives near Rotterdam, Netherlands. He first tuned in to UVB-76 in January 1983. He says he didn't mean to. He was looking for another station, rolling across the dial, and suddenly he heard the crackly, wispy beep beep beep. And stopped. This is how many fans talk about their discovery of the station: It was late, and they were looking for something else—a weather channel, a maritime report, some Air Force chatter—when all of a sudden UVB-76 broke through the ether and they were captivated, unable to stop listening to the haunting pulse that bleated through the cold and snowy dark all the way to their receivers. The question they all wanted answered was, what the hell is this? "The fun is and was to find out who they are and where they transmit from and what the purpose is," Boender says.

Before the Internet, shortwave fans knew of one another's existence largely through niche publications, whether photocopied newsletters like Monitoring Times or small-circulation magazines like Popular Communications. (Cover line on the October 1985 issue: "Eavesdropping on Aircraft Communications!") If something exciting happened on UVB-76—when there was an uptick in the duration of the beeps from, say, 1.9 to 2.2 seconds, or when the timbre of the beeping waxed or shifted, or when there was a rare pause in the transmission—fans would write in and speculate about possible meanings. They would clock the frequency of the beeping and listen for discrepancies or numbers or voices just beneath the veil of sound. They would ferret out other subscribers to the newsletters they received and other members of the shortwave radio associations they belonged to and share their findings.

Even today, listening to UVB-76 is like listening to a world that hasn't existed for decades. This feels especially true late at night when you're in a dark basement, headset on, enveloped by all the pops and whirs and snippets of anonymous voices from other signals seeping across the airwaves—"these little trips into fantasy," as Room641A puts it, that "happen when you are sitting in front of your receiver passing by Radio Havana at 3 in the morning."

Most observers believe that UVB-76 is an idiosyncratic example of what's called a numbers station, used to communicate encrypted messages to spies or other agents. Typically, these stations transmit numbers in groups of five, making it impossible to detect partitions between words and sentences. The numbers can be decoded using a key in the possession of the intended listener. Numbers stations are thought to have existed since World War I, as documented by the Conet Project, a compilation of recordings that was first released in 1997. (Director Cameron Crowe, a fan of the Conet Project, used samples from it in his 2001 film Vanilla Sky.) Drug runners are believed to have used numbers stations on occasion; so too are the North Koreans, the Americans, the Cubans, and the British. Indeed, shortwave hobbyists suspect MI6 was behind the most famous numbers station on the planet, the much-revered Lincolnshire Poacher.

An online group calling itself Enigma 2000 (the first part is an acronym for the European Numbers Information Gathering and Monitoring Association) collects data about numbers stations around the world. Jochen Schäfer, who heads the group's German branch, says of UVB-76, "It's no typical numbers station, but it is one." Usually, he says, numbers stations begin their transmissions with a call sign, then move on to a specially produced introduction—the Lincolnshire Poacher, for example, got its moniker because every broadcast kicked off with the first two bars of the English folk song with the same name—before they start broadcasting numbers. "This station is different because of its structure," Schäfer says. "Most of the time, there is just the buzzing tone... The messages come at irregular times."

But this anomalous format has prompted some UVB-76 listeners to suggest that it is not a numbers station at all. One former high-ranking European official and longtime student of Soviet jamming of Western radio stations, known to his fellow UVB-76 fans as "JM," maintains that the Buzzer's purpose is to transmit coded orders to military units within Russia, not to spies outside its borders. JM notes that most of what has been pieced together about the station's specs—its frequency of 4625 kHz, its main 20-kilowatt transmitter, its 5kilowatt backup transmitter, and its horizontal-dipole antenna—points to conventional, military use. Bryan Tabares, a 21-year-old production engineer in Jacksonville, Florida, agrees and puts forward an even more innocuous theory to explain the disruptions of 2010: He believes it was merely "pink noise" manufactured by sound engineers to calibrate audio equipment. That's all. "Everything that's happened points to an equipment

The RADIOGRAM

upgrade or calibration," Tabares says.



One of several abandoned structures near the radio tower in Povarovo. Photo: Sergey Kozmin

intelligence agency]. A number of people around the globe listened, and we exchanged messages and

the KGB and GRU [Russia's largest foreign

recordings and analyzed them until we finally

Boender, the financial consultant near Rotterdam, says he is now confident that UVB-76 is controlled by the military. He bases this conclusion on his analysis of known Russian military stations. That type of sleuthing seems to be a large part of the appeal for him and other shortwave aficionados. He gives another example: "We discovered a Russian network in the early '90s, but it took us a couple of years before we actually found out who they were. It appeared to be a network of Soviet embassies, consulates, ministries, and most likely also

discovered who they were." He adds, "That's what makes it fun."

It took a 37-year-old computer engineer in Tallinn, Estonia, to drag UVB-76 into the Internet era. In the process, Andrus Aaslaid has expanded the station's audience in a way that no devoted listener could have anticipated. Aaslaid's office is the third-floor attic of a stonework building on a quiet street in the center of the Baltic city. From the kitchen in the attic, he can see, about 20 feet away, the apartment he shares with his family, which takes up the top floor of a former boardinghouse built in 1897. Though Aaslaid isn't well known internationally, inside Estonia he's something of a poster boy for the local tech scene, which has produced not only giants like Skype but a slew of rapidly growing startups. In the early '90s, Aaslaid launched his first company, LaidWare, providing banks with ATM-networking systems. Then he ran a firm that was acquired by the quartet behind Skype. Then he did a stint in Silicon Valley. After that he served as an adviser to two Estonian economic-affairs and communications ministers, including Andrus Ansip, the country's current prime minister. Like many entrepreneurs, Aaslaid has a frenetic quality, and he resists convention: He got married to the mother of his children in 2010, when his daughter was 6 and his son was 4. He has a hard time staying at a job for more than a year. He dropped out of university after two months. ("I was already working as a programmer," he says. "We were the first wave to learn it hands-on. You didn't need a degree.")

Aaslaid discovered shortwave radio as a young boy, and even today, when he talks about the UVB-76 Internet relay, he sounds a little like a teenager, fascinated by a world he does not quite understand. He turns on his receiver and we listen for a few minutes to random sound fragments: a peace activist talking about "rediscovering Hiroshima," a Russian newscaster describing carnage in the Gaza Strip, the tail end of a song by Supertramp. "I've spent nights just randomly browsing and sometimes getting really, really drunk," Aaslaid says. (His drink of choice is Aberlour A'bunadh, a single-malt Scotch.) "In the era of the Internet and corporations, people's lives are so well planned and predictable," he says. "In some ways, UVB-76 represents the good kind of unpredictability and mystery."

Hooking up the relay was technologically simple but physically challenging. To make his antenna, he scrounged up 230 feet of copper-plated wire and in the middle of the night strung it between the roof of his office and the roof of his apartment building, going back and forth several times. Then he hooked up his shortwave scanner to his computer. To handle the streaming audio, he used a British service provider called MixStream. Several weeks later, he upgraded to a custom-built magnetic loop antenna and swapped out his scanner for a software-based radio.

Over the next six months, 200,000 listeners from scores of countries dropped in. Like any good shortwave junkie, Aaslaid watches the watchers—noting that, after the US, the number-two source of interest is Russia. Aaslaid says he's received numerous email messages from artists and musicians who said the Buzzer had inspired them. X-Ray Press, a "math rock" band in Seattle, released an album this year called UVB-76, which features Buzzer-like buzzing in the background. Sherri Miller and Mario Fanone, two electronic musicians in Buffalo, New York, did them one better by naming their band UVB-76 and starting each live set with a brief sample of the Buzzer. Fanone plays a Casio digital guitar and a trumpet, while Miller generally plays a Korg Electribe, though sometimes she plays a vacuum cleaner, running its whoosh through an effects pedal to enhance its sound.

Aaslaid remains fascinated. "It has transmitted voice messages, it has been mute, its frequency has been hijacked by pirates, it has run through the maintenance with all the related voice messages and test runs, it's had loads of strange noises, transmitted 24 hours with extremely high power all around the world," writes Aaslaid, in a typically rapturous email about just what the station means to him. "Therefore I have fallen for it!" When I ask him why anyone cares about UVB-76, and why they should care about shortwave in general, he replies by invoking the universal connectivity that this primitive technology allows, even in places far from a cell tower. "Imagine somebody with a Morse key or a reel-to-reel tape deck in the middle of the Namibia desert, running a

shortwave transmitter off a diesel generator and sending music or messages toward the ionosphere. In the middle of the night, it does not get any more spiritual than that."

A new intrigue about UVB-76—or MDZhB—is the question of its location. Soon after the upheavals of August and September 2010, with all the stopping and starting and knocking and whispering, shortwave listeners reported another remarkable shift: The station's position seemed to have moved. JM, the former European official, has since helped trace its rough location to near the town of Pskov, close to Russia's border with Estonia. But no one has been able to triangulate exactly where the broadcast is coming from. Ary Boender theorizes that the move was related to a Russian military reorganization that took place that September, when the Moscow and Leningrad military districts were merged to form a new command center in St. Petersburg which would explain why UVB-76, too, might have migrated hundreds of miles northwest. For the foreseeable future, though, the site of the transmitter has been added to the long list of its enduring mysteries.

Today, the mini military city in Povarovo, from which the cipher broadcast for so many decades, is nearly abandoned. The surrounding village is a gray-brown tapestry of Communist apartment buildings, recently built dachas, and babushkas hawking honey and cucumbers. Around the voyenni gorodok, there are gates and walls and signs—military vehicles only—but no guards or electrified fences, and the gates are not locked. The only activity is near the housing blocks filled with the wives and children and grandchildren of Soviet veterans, living and dead. "This was like paradise," says one resident, Natalia, whose late husband, Sergey Nikolayevich, served as driver to the commander of the voyenni gorodok. When asked about the looming wrought-iron fence roughly a hundred feet from the entrance to her apartment building, she says she never strays through its gates. On the other side is the radio tower, and no one, according to Natalia, ever goes there.

The one-lane road that leads to the tower stretches about a quarter mile past a handful of empty buildings and a thick pine forest. A chain-link fence, supported by stone posts capped with moss, surrounds the tower. Between 100 and 150 feet tall, it's red and white and rusting, with three or four satellite dishes attached to it. Next to the tower are a blue shed, a green metal hut stuffed with wires and electrical equipment, and an ancient stone structure that's also overgrown with moss. And there appears to be a large underground facility: The muddy pitch on which the tower stands is riddled with metal cylinders (presumably ventilation shafts) rising out of the ground, and there is a very small pink building that looks like the entrance to a descending staircase. Also, there's a door that's partially ajar on the side of the stone structure. If you open it and peer inside, you'll see a black hole where there must have been a ladder several years or decades ago, and if you drop a rock in this hole, it will take about a second to reach the bottom—whatever is down there is at least 32 feet belowground.

Just beyond the chain-link fence and the radio tower is another building, which is one story and also pink. There is a large antenna outside, and a tree, and a barking mutt leashed to a cable that's strung from the tree to the building. The setup is such that if you were to approach the front door, you would enter the jurisdiction, so to speak, of the dog, which barks endlessly and ferociously, as if he has been beaten.

The front door appears to be locked. There is no light on inside; no one comes in or out. But someone has been here. The dog, after all, must be fed.

Peter Savodnik - Peter reported for newspapers and magazines for 15 years — from New York, Washington, Moscow, Beijing, Berlin, Buenos Aires, Delhi, Tel Aviv, Cairo and elsewhere. His byline has appeared in The New York Times Magazine, The Atlantic, The New Yorker, Harper's, Time, The Wall Street Journal, GQ, Wired and W. Peter's book, The Interloper: Lee Harvey Oswald Inside the Soviet Union, was published in October 2013 by Basic Books.

Thanks to Dave - NF8R for spotting this at WIRED - https://www.wired.com/2011/09/ff_uvb76/

From The Great Lakes Division Vice Director

Tom, W8WTD
Vice Director, ARRL Great Lakes Division

A few months ago, the winner of the Hiram Percy Maxim award for 2015 was announced. The honor went to 13 year old Chris Brault, KD8YVJ, of Liberty Township, Ohio, a member of the Great Lakes Division. The Division would like to formally recognize Chris for this national honor and will be holding an awards ceremony at the Voice of America Museum of Broadcasting in West Chester, Ohio, on Saturday, November 12th at 1 p.m.





Chris Brault, KD8YVJ

Hams throughout the division, but particularly those from the Greater Cincinnati area, are invited to this celebration. We invite all ham radio operators to come and meet Chris and congratulate him on his accomplishment.

The VOA Museum will be open from 1-4 p.m., with free admission. However, donations are always greatly appreciated. The facility houses three museums, one featuring the Voice of America transmitting facility (the Bethany Relay Station) which is the original purpose of the building; another the Media Heritage Museum, showcasing the history of broadcasting in the Cincinnati area; and finally the Grey History of Wireless Museum, with many old-time radios of all sorts.

In addition to the ceremony and reception, where hams can congratulate Chris in person, we hope to get him on the air from the West Chester Amateur Radio Association shack in the museum, so that hams throughout the Division can make contact with Chris. Details to be announced later, but we'll probably try forty meter SSB after 2 p.m. He'd appreciate making many contacts with hams in the Division.

For more details, contact Vice Director Tom Delaney, W8WTD, at w8wtd@arrl.org.

ORP/CW Special Interest Group

Tom, WB8LCD

We would normally meet on Tuesday, November 8th, but, I will be out of town (again) for the week (right after the Monday night PCARS meeting).

I will get our project back on track and we'll start some "on air" practice sessions right after Thanksgiving. I plan to do these on the K8IV repeater so everyone who wants to participate, can join in.

Also, it's not too early to start thinking about a station for FYAO!



The Life of a Bureau Letter Sorter

Elmer a.k.a "Goose", W8AV

I am the "R" letter sorter for the 8th Area ARRL Incoming QSL Bureau. This means that I handle all of the DX QSL cards that come into the bureau whose calls have an "R" as the first letter of their callsign suffix. I have been doing this for about 7 years now taking over the "R" letter after the previous sorter K8VG became a silent key. It is a rather daunting task handling cards for over 1000 "R" customers but I have always viewed it as a way of giving back to the hobby that has enriched



my life. Just as a sideline, I am also an avid contester and DXer as well as a DXCC Card Field Checker, so my life is busy. But, enough of that. Let's walk you through what I do as a letter sorter. By the way all letter sorters are unpaid volunteers, although we do get to use the ARRL's Outgoing QSL Bureau for our personal cards free of charge.

About 4 times a year each letter sorter receives bureau cards from the main W8 sorting bureau in West Chester, Ohio. The cards arrive at the main sorting bureau from overseas and are sorted there by the first letter of the suffix. The bureau manager, in this case Jack, N8DX, then mails the cards to the respective letter managers (26 in the 8th Area) who then sort the cards by callsign. With the "R" letter, I usually receive about 15 lbs. of cards in each sort, although the W1AW Centennial QSL cards, I received 24 pounds of cards! For me this sorting usually takes about two to three days depending on the number of cards. After the sort, I begin to stuff envelopes to mail the cards to you, the recipient. Stuffing envelopes normally takes about a week and a half before I can mail the cards. Each envelope must be weighed to insure that it has sufficient postage on it for mailing. My "heavy hitters" get a lot of their cards mailed to them in boxes since it is cheaper that addressing and mailing five or six envelopes.



This might bring up the question on why do I have to address the envelopes? The answer to this is that many of us sorters operate on a "cash credits" program in which you, the ham, sends the letter manager money and he or she provides the envelopes and postage. By doing this I can affix a 21 cent stamp to the envelope to cover the second ounce of weight without having to use and additional envelope and 47 cent stamp. Furthermore, I can buy envelopes in bulk so that I can try to save you money and I do all the leg work of getting envelopes and postage so you don't have to. It also alleviates the problem of someone sending me a No.6 envelope (the standard letter sized envelope) which will not hold the larger cards without having to fold them in half or a No. 10 (business letter) envelope with \$1.50 of postage on it. Over the years, I have seen a lot of different sized

envelopes with either not enough postage or an 8x10 envelope with one first class stamp on it. Just a note, an envelope larger than 6x9 cannot be machine processed so the postage rate for these "oversized" envelopes is 92 cents for the first ounce of weight.

This is why I prefer "cash credits", it prevents this kind of hassle. Contact your letter sorter to see if he or she wants envelopes of cash to mail your cards. You can find the list of letter sorters on the Great Lakes Division web site (http://arrl-greatlakes.org/8th_bureau.htm). If you prefer to deal with envelopes, please use the 6x9 envelopes and put only one first class "forever" stamp on each envelope so you don't get caught with your pants down when the postage rates increase.

Portage County Amateur Radio Service, Inc. (PCARS)

The worst part of my job is spending extra hours trying to track down hams that have QSL cards on file at the bureau but no funds or envelopes. This is a tedious process as a lot of them never list their e-mail addresses on QRZ.com and many of them never reply when I try to contact them via e-mail, the NTS, or with a postcard. There are also others that simply do not want their cards. Bureau policy is to destroy them after 90 days if there is not response from the ham but some of us keep them for longer periods in our "dead letter" files in case you change your mind and want your cards. If you work DX, you should have envelopes or funds on file with your letter manager so that the manager does not have to keep trying to find you. Also, if you move, please let your letter manager know so they can get your cards to you in a timely fashion. Remember, if you get confirmation for a QSO on LOTW, you may also get a paper card through the bureau.

One final note, the letter managers do not handle "outgoing" cards. We simply do not have the time to process both incoming and outgoing cards. It is your responsibility to mail these to the ARRL if you are a member or to one of the custom QSL services if you are not a member. There is a processing cost involved for sending outgoing cards it is not a free service.

Check the ARRL's website for the current fees.

Linux for Hams Special Interest Group



Terry, KB8AMZ

The Linux for Hams SIG on November 29th will be the last SIG for this group for this year. January 31, 2017 will be the first Linux for

Hams SIG in the new year. Parky has pointed me to another group like ours located in Southeast Arizona and the newsletter editor for that club is a Linux guy, Ron Herring, W7HD. Ron and I have been in touch via email and Ron has some interesting bits that I will be pass out at the November 2016 and January 2017 Linux for Hams SIG. My co-partner Mike Ryan, KB8TUY and I thank those members that have attended and participated in the L4HSIG

ARRL CEO to visit in Sharon, PA



CEO of the ARRL to visit in Sharon, PA - Nov 9th

All interested Amateur Radio operators are invited to attend a very special evening with **Tom Gallagher, NY2RF** - the new CEO of the ARRL-hosted by the Mercer County Amateur Radio Club. Tom's prepared presentation will start at 7 PM at Penn State Shenango in downtown Sharon, PA. There is plenty of seating available.

More information is available on the MCARC web site http://w3lif.org - click on the Penn State address for a pop up map.

Thanks to K3LR for sending this information.

Let's Talk

Scott, N8SY
Ohio ARRL Section Manager

Wow - Did someone leave the refrigerator door open? It sure has gotten colder out!

I want to remind everyone that you'll find the story about the RNC / NAACP Conventions in the NEAREST OCTOBER ISSUE OF CQ MAGAZINE! We got 5 full pages of coverage! Nice work everybody!



Now, switching bands to another subject..

Have you seen the NEWEST "Handbook Giveaway" drawing on the website yet? It's there..!! To enter the drawing all you need to do is fill in a couple of boxes on the form.. (your name and email). That's you need to do to be entered into a drawing to win a 2016 ARRL softcover Handbook. There's nothing else required (Oh.. You do need to be a resident of Ohio to win..) The winner will be mailed the Handbook at my cost. This is being offered just to see how many folks are really checking in on the website. Got the idea? Best of luck to you!!

Are you getting those emails from me? If not, all you have to do is to "Opt-In" to receive them. Heck, just send me an email n8sy@n8sy.com and I'll get you added to the mailing list. There's a link to do this on the Ohio Section website, it's on the bottom left corner.. For your convenience, here's a direct link to it: http://arrl-ohio.org/forwarder/forwarding.html I urge all of you to make sure that everyone, regardless of whether they are a League member or not, get signed up for one of these options. You can always "Opt-Out" at any time if you feel this is not what you were expecting.

Let's shift bands once again..

Let's talk about the Ohio Section Website. You can find the Ohio Section Website at: http://arrl-ohio.org If you don't have this website set as your home page, I urge you to do so. It changes a lot and it's so important for you to be kept up to date with the very latest information.

There's another NEW – one question – questionnaire on the Ohio Section Website! This question is really important for me to know.. It will only take about 2 seconds for you to answer it, and you can see how your answer stacks up with others instantly. If you haven't done it yet, please do.. I really want to hear from you.

Are you a member of the ARRL?? If you aren't a League member, this is a great opportunity to become one. Want more information on how to join? Here's the link: http://www.arrl.org/membership-levels. There's even a 90 day FREE trial that you can apply for if you've never been a member.. Got questions about being a member or what the League is all about? Send me an email n8sy@n8sy.com. I'll be happy to call or write to you. We can even meet and have coffee if you'd like.. and I'll buy!!

One last spin of the dial..

Lastly.. I'm always available for you, whether you're an ARRL member or not. If you have any questions, concerns, or would just like to sit and chat awhile over a cup of coffee or something cold to drink, feel free to call or write me (419) 512-4445 or n8sy@n8sy.com

That's going to do it for this month. I hope to see you all at your hamfests, club meetings or on the air!

Paper Chase

Joe, W8KNO United State Naval Academy - 1962

November 11th Armistice Day - WWI - The Great War - The War to End All Wars

In Flanders Fields

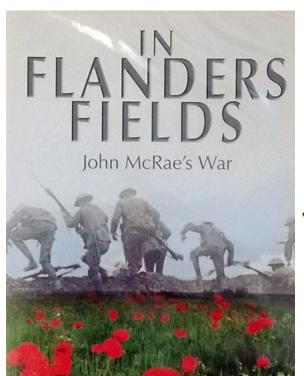
In Flanders field the poppies blow Between the crosses, row on row That mark our place; and in the sky The larks, still bravely singing, fly Scarce heard amid the guns below.

We are the Dead. Short days ago We lived, felt dawn, saw sunset glow Loved and were loved, and now we lie In Flanders fields.

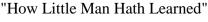
Take up our quarrel with the foe:
To you from failing hands we throw
The torch; be yours to hold it high.
We shall not sleep, though poppies grow
In Flanders fields.



The QSL Card shown above was received from OP4RO for a QSL on Armistice Day 2014



"In Flanders Fields" was inspired by Lieutenant Alexis Helmer, 1st Brigade, Canadian Field Artillery and written by John McCrae in May 1915



Joe - W8KNO - USNA '62



Niagara Falls

Tom, WB8LCD

Apparently the last couple times I've been to Niagara Falls I didn't walk down to the visitors center on the Canadian side. Instead I stayed in the hotel area – more like the



"tourist" area. I was there over the weekend of October 15th and had seen an ad for an interesting restaurant on



the patio of the afore mentioned visitor's center. As we were walking along a pathway in Queen Victoria Park from the main road, over to the center, I came across a statue dedicated to Nikola Tesla! The statue was dedicated there on September 3, 2006. I wasn't expecting that, there. Now, I'll be the first to tell you, I've always been a fan of Thomas A. Edison, but I certainly have my share of respect for Nikola Tesla, who once worked for Edison. Unfortunately, Edison never gave Tesla the attention he deserved, and later on they became bitter business rivals.

It really was a war between AC and DC electrical current. Edison worked exclusively with Direct Current and Tesla has been credited with inventing Alternating Current, which led to the induction motor. (The AC motor is responsible for the "Second Industrial Revolution" - the first was Henry Ford's

assembly line. When motors powerful enough to move those assembly lines were created (read "AC motors") it pushed those assembly lines even faster and made them more efficient.

As a young boy in Serbia, Tesla had seen a picture of Niagara Falls. He commented at the time "someday I'll harness that power". In 1895, working with George Westinghouse, they built the world's first hydro-electric power plant in Niagara Falls. At the opening ceremony in January of 1897, Tesla said:

"We have many a monument of past ages; we have the palaces and pyramids, the temples of the Greek and the cathedrals of Christendom. In them is exemplified the power of men, the greatness of nations, the love of art and religious devotion. But the monument at Niagara has something of its own, more in accord with our present thoughts and tendencies. It is a monument worthy of our scientific age, a true monument of

enlightenment and of peace. It signifies the subjugation of natural forces to the service of man, the discontinuance of barbarous methods, the relieving of millions from want and suffering"

Next time you visit the falls, check it out!

For more about Tesla, look at these videos on YouTube: https://www.youtube.com/watch?v=YrwPQqKEGXA https://www.youtube.com/watch?v=5qqYuM8HC5k



Celebrating Your Club's Elmers

Dan, KB6NU



Sam, W5KF, recently sent me a link to the Elmers' page on the Norman, OK South Canadian Amateur Radio Society (SCARS) website. Not only is it a listing of the club members who have stepped forward to Elmer new members, but also provides ways to honor current and past Elmers. This is from the SCARS newsletter:



"Elmer List on the W5NOR.org website

This week we talk about a brand new feature on the W5NOR web site. In the amateur radio community, an experienced amateur radio operator who mentors a new or prospective ham is commonly called an "Elmer". In our hobby, that seems to be a great way for knowledge to be transferred.

"Yes, we all have taken an FCC test to receive our license, however that's only the starting point. Remember that person that helped you set up your first radio, or gave you the courage to press the PTT button, or answered endless questions about a radio, or an antenna? That's the kind of thing we're talking about.

Thanks to a great suggestion from Gary Skaggs WB5ULK [not sure it was my idea. – Editor], we've created the SCARS Elmer Page, located at http://w5nor.org/elmers, for us to celebrate Elmers; past, present, and future. We provide a place for Elmers to list their specialty, and contact information, which allows new hams to find someone they can ask questions of.

Since this is a new section of the web site, this list is rather short. If you're willing to help others on a given topic, send a message to n5hzr@arrl.net and you will be added to the list. Right now we need lots of different categories, like antennas, radio setup, HT programming, contesting, satellite operation, high power operation, test gear, building your own gear, repairing radios, APRS, D-Star, DMR, CW, logging, etc. oh well, you get the idea.

You don't need a PhD to be listed here. You just need a willingness to help others in a given area. It's OK to be a new ham, and be listed here. You may have just struggled through your first space contact, but you'll have infinitely more knowledge than the person who's been a ham for 40 years, and has never tried that portion of the hobby.

Also, there is a link to the "ARRL Elmer Award" page of the American Radio Relay League's web site. Here, you can enter your favorite Elmer's name and callsign. The ARRL will print a nice certificate, and mail it to the address you enter. Yes, for FREE! This certificate can either be mailed to your favorite Elmer, or you can mail it to yourself so you can present it to them personally. Feel free to order an Elmer certificate, and present it to your Elmer at an upcoming SCARS meeting. Talk with one of the officers before the meeting to get your place on the agenda. What a great way to recognize these people for their extra efforts.

Finally, we've got a place to list YOUR favorite Elmer in our SCARS Elmer Hall-of-Fame. This is the place to memorialize your Elmer, whether they are SCARS members, Silent Keys, or not. I've already listed a few Elmers on the list from my own travels through the hobby. We'd love to list the people that help us all succeed.

So, please help make this page useful, visit the SCARS Elmer page at: http://w5nor.org/elmers and be listed as an Elmer, and list your favorite Elmers."

I think this is a wonderful idea, and I hope that you will consider doing something similar in your club. A little recognition could go a long way, and we need all the Elmers we can muster. And, if you're already doing this, please send me a link. I'll add that link to my website, KB6NU.Com.

When he's not Elmering new hams, you'll find Dan building kits and working CW on the HF bands. He is the author of the "No Nonsense" amateur radio license study guides, and blogs about amateur radio at http://www.kb6nu.com/. You can contact him by e-mailing cwgeek@kb6nu.com/.

Ubiquiti Antenna Build Day

Jim, AC8NT

Had a great time at our Saturday Antenna Build Day. Six of us built a 10db Omni-directional 2.4 GHz antenna for Ubiquity access points.

With jigs in hand we bent the wire; soldered it onto the N connector; and enclosed the results in a piece of PVC pipe.

This project costs about 6 dollars and took about an hour to bend each antenna.

We had fun and built and inexpensive antenna saving a good bit of money over commercial units.

The jigs and instructions for building these antennas will be at the club site in a couple of weeks. I have loaned the jigs to another club for the next week so they can have a little fun as well.

















Membership

Tom "Parky", KB8UUZ

It's that time of year again. As 2016 is coming to an end and 2017 is just around the corner, PCARS needs your support to keep it going and providing a fun place to gather and be with other people that enjoy this great hobby of ours.

So - what can you do to help keep the club active and going strong?



First thing is to **re-new your annual dues as soon as you can**. There's a membership application at the end of this news letter and there's one on the club web site, too. You can pay by check or cash at the next meeting - see Mark, K8MSH - he will be glad to help you get your dues processed. Do you use PayPal? Well, you can pay on-line with PayPal - check out the club web site for details and the link.

Second thing you can do to support the club is to let the officers know what things in ham radio really interest you - or things that you would like to know more about. Armed with this information, programs can be set up that will help you learn more about our hobby and who knows, you may find that one thing that makes this the greatest hobby you have ever had!

PCARS is very fortunate to have the club site and the equipment available for use for our members. It takes a lot of work to maintain the club site and add new items to ensure full operation and offer the fun times that are looked forward by the membership.

You have a gold mine of expereinced hams in the club and everyone has knowledge that they would be more than happy to share and pass along. Tap on this wealth of information now - in the future, new hams will be asking YOU for advise as well - that's called "Elmering".

PCARS is has been around for more than ten years. With your help, it will be around for years to come inspiring new hams and bringing back that excitement you had when you found something in our hobby that made you thrilled to be a ham.







Swap-N-Shop

FOR SALE: Cameleon Magnetic Loop - F-Loop Antenna - 2.5 to 29.7 MHz. \$300

WANTED: 500 Hz CW Filter for Icom 703New

Contact: Dave, WV8P at <u>WV8P@roadrunner.com</u> [2/02/17]

FOR SALE: Signalink - New In Box with cable for ICOM Never used \$80.00. **ICOM SM-20** Desk mike \$125.00. BY-2 Iambic Keyer paddle with chrome base \$80.00 Lets talk.

Contact: Richard, KA8OAT phone: 330 898 6248 [1/02/17]

FOR SALE: Energy Concepts 30820D 20 Mhz Analog Oscilloscope I recently tossed a bid in on what I thought was one 30820D oscilloscope. I had to pick it up in Northern Virginia. It was a lovely drive down and a very scenic drive back. I thought I was fortunate to get one, but imagine my surprise when they handed me five of them. I have three for sale. They are \$75.00 each and come with manuals and probes.

Contact: Robert, N8RLG by email to: N8RLG@portcars.org [1/2/17]

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 pigtails. 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 $_{[2/02/17]}$

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 [2/02/17]

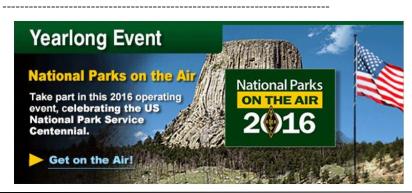
FOR SALE: Rig Expert AA-30 - HF Antenna Analyzer - Like new in box. No scratches or dings. Bought the 230-Zoom model, so I don't need this one now. Freq range: 0.1-30 MHz, LCD Screen, CD and 2 batteries. Cost new \$225, will sell for \$169.

MFJ-269 Antenna Analyzer - HF/VHF/UHF - Works fine, about 15 years old, comes with MFJ-1312B wall charger, manual & box. Bought newer unit so this is excess gear for me. No batteries included. Costs new \$369. will sell for \$159.

Contact: Tom, KB8UUZ by e-mail at KB8UUZ@portcars.org [2/02/17]









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:

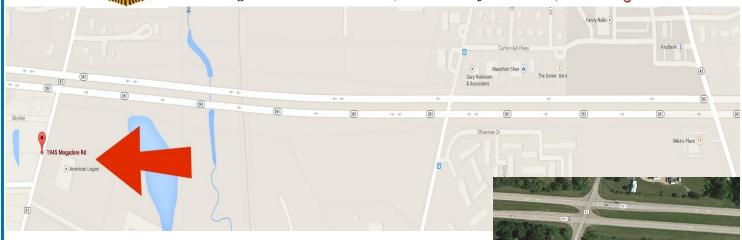




PCARS Meetings

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)

American Legion

Post 496

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 October PCARS Meeting





PCARS - 10 October 2016

Important Dates This Month

Sun 6th Nov, 2016 - Nachos Day

Sometimes they're hot and spicy. Sometimes they're cheesy. Sometimes they make a mess everywhere. But one thing is certain: they're delicious, and a favorite in many parts of the world. Yes, we're talking about nachos. What food deserves its own holiday more than nachos? From the kitchens of Texas to the Rose Bowl Stadium, nachos have more then earned their fame. And their own day. National Nachos Day.

The History of Nachos day:

Nachos originated in Piedras Negras, Mexico, just across the border from Texas. One day in 1943, when the wives of some American soldiers stationed nearby came into his restaurant, the maitre d'hotel, whose name was Ignacio "Nacho" Anaya, had to make them something to eat. The problem was that is was evening, and already

a few minutes past closing time, so Ignacio really didn't have enough ingredients left over to make any real, full dish—all he had were a few tortillas, some shredded cheese and some pickled jalapeno peppers. So he cut up the tortillas into pieces, sprinkled what else he had over them, and baked them for a few minutes before serving them to melt the cheese. The women greatly enjoyed the snack, and when they asked Ignacio what it was called, he answered "Nacho's especiales". The word of this



new hot snack traveled fast through Texas and the Southwest. Ignacio Anaya himself went on to work at the Moderno Restaurant in Piedras Negras, which still uses the original recipe till this day. He also opened his own restaurant later on, called, "Nacho's Restaurant", in Piedras Negras as well. Anaya's original Nachos recipe was printed in the 1954 St. Anne's Cookbook. A few years later, a modified version of the original dish, with cheese sauce and prepared tortilla chips was marketed in 1976 by businessman Frank Liberto during various sporting events taking place in Arlington, Texas. This version became known as "ball park nachos".

How to celebrate Nachos Day:

Obviously, there is not better way to celebrate Nachos Day, which falls on November 6th, than to cook up some good old-fashioned nachos on your own. Granted, there are many varieties and toppings, but here is a simple yet delicious recipe for homemade nachos:

Ingredients: (serves 4)

1 large (10-12 oz) bag of corn or tortilla chips - 8 oz Jack cheese - 8 oz Cheddar cheese A large jar of your favorite salsa - A handful of pickled jalapeno slices

Preheat your oven to 200 degrees Fahrenheit. You could use a microwave, but the chips get much crispier from being in a real oven. Arrange the chips in an oven-safe dish. Spread the chips out—the more you spread them out, the more room there'll be for cheese and the less "disappointing" nachos there will be with next to nothing on them. Next, grate the cheese, and mix both kinds well. Spread the grated cheese evenly over the chips. Spoon the salsa over the cheese-covered ships, and then sprinkle the jalapeno slices overtop of everything. Bake until the cheese has melted and starts bubbling, about 10-12 minutes, taking care to make sure the nachose don't start burning. After you remove them from the oven, WAIT about 1 minute before you dig it. It may seem torturously difficult to wait, but waiting is still much better than burning your mouth, tongue and throat with nearly boiling cheese. Serve while still very warm, and enjoy!

Sat 12th Nov, 2016 -Pizza with the Works - Except Anchovies - Day

When faced with the question of "what would you like on your Pizza?", the pizza novice might answer "everything, please!". This is a rookie mistake, the correct answer is 'everything except anchovies!', at least that's the case for those of us who aren't keen on those arguably pizza-spoiling salty fish! Pizza With The Works Except Anchovies Day is all about indulging, but without the anchovies, please.



Wed 16th Nov, 2016 - Fast Food Day

Fried Chicken, Pizza, Hot Dogs, Chips, Onion Rings, Hamburgers, oh my! Fast Food is both boon and bane to the busy people of the world, and we all have our favorites. Traditionally rich and greasy, fast food tastes like pure bliss on your tongue, and can easily become addictive. Whether you love rich cheese and bacon covered potato wedges, or a quick and healthier chicken taco, Fast Food Day is your excuse to indulge in all your favorite treats.

History of Fast Food Day:

Thanks to the rising popularity of cars after World War I, fast food started finding a niche that it could fill for the road-bound traveler. Whether it was a quick trip into town for a rare treat, or a stop on a cross-country

adventure, a fast, hot food choice was needed to fill the niche. White Castle first stepped onto the scene in 1921, when hamburgers were offered for .05 apiece, and by 1950 fast food had become an American Institution. From there the love of fast food started spreading throughout the world, and can now be found in everywhere from downtown Japan to India.



While the "hamburger joint" was the first

type of fast food, fast food restaurants can be found in just about every ethnic cuisine the world has to offer. From Mexican to Thai, there's sure to be a restaurant you can swing through to enjoy your favorite flavors of rich greasy goodness.

How to Celebrate Fast Food Day:

The start with you can celebrate Fast Food Day by dedicating every meal to a different variety of fast food. Stop in a McDonald's for a breakfast burrito, fried tater discs, and an orange juice, and then stop in at Burger King for a Whopper with Onion Rings and a Strawberry Shake! Then to round it all off find the nearest KFC and round it all up with a big ol' basket of chicken, because that's how Fast Food Day rolls!

To add a little bit of variety to your experience, ask about the 'secret menu' most Fast Food restaurants have. These aren't really secret, so much as a list of discontinued items that are still able to be made with the ingredients from the normal menu. Jack in the Box, for instance, has a Bacon Bacon Cheeseburger made with Bacon Bits, Bacon Strips, Two Patties, and cheese that is just to die for (or from?).

Don't let Fast Food Day go by without drowning yourself in the indulgence that is the rich and delicious foods from your favorite take-out place!

Sun 20th Nov, 2016 - Name Your PC Day

Chances are that you spend a lot of time at your computer, whether that's at home, work, or on the move; in some cases probably more time than you spend with your friends, family or loved ones! Yet even with all this time together, your PC remains an anonymous stranger – seize the chance to take your relationship to the next level by giving your computer a name on Name Your PC Day.

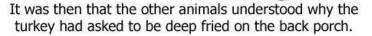


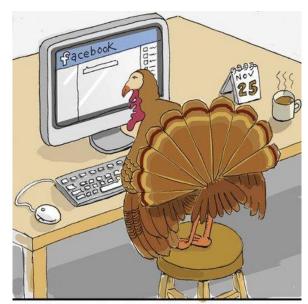
Mon 28th Nov, 2016 - French Toast Day

French toast is a food made by frying bread in egg mix, though many variants exist by region and by ingredients – some including sweet additions such as fruit, syrups and milk. French Toast Day encourages you to try this delicious dish (also known as eggy bread and poor knight's pudding) in place of your normal breakfast (or dessert).

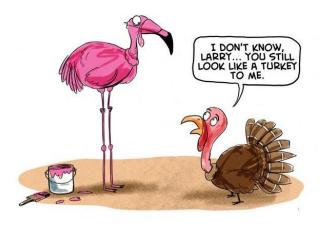








"500 friends and no one's available to chat? No new posts today? How odd...."



PCARS Black Squirrel on the DX Engineering Catalog



Here it is!



Don't have a catalog?

Get the DX Engineering Autumn/Winter 2016 Catalog

Request a catalog, view/download a pdf, or browse the digital catalog!

By the way - that's PCARS member Bob, W5OV on the cover.

Also, when you visit the DX Engineering showroom inside Summit Racing in Tallmadge - look around - you'll find the PCARS Black Squirrel hanging out there!



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 2016 and beyond.



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

K8CAV, AC8NT, KB8UUZ, N8RLG, KD8MQ, KC8PD, WB8LCD, W8WTD, W8AV, KB8AMZ, K3LR, N8SY, W8KNO, KB6NU, Peter Savodnik, 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:								
ARF	RL Member? [] Yes [] No Birthday: Month:	ARRL Membership Expire Day: (do						
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.								
Ch On	eck e		Dues Amounts					
	Regular Full Membership	Pay January 1 through May 31= \$20.00 (full year) Pay June 1 through August 31 = \$15.00 (last 7 months)						
	Associate Membership	Pay September 1 through November 30 = \$10.00 (last 4 months) Pay December 1 through December 31 = \$5.00 (last month)						
	Regular Senior Full Membership (65+)	•	t 31 = \$12.00 (last 7 months)					
	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)						
	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:					
Signed.		Date Received:	O New O Renew					
Mail to:	Portage County Amateur Radio Service, Inc. c/o: Mark Haverstock, K8MSH 6835 Colleen Dr. Youngstown, OH 44512		es: \$ = Total \$					

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!

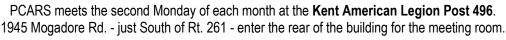


Check PCARS out on the web at: www.portcars.org Questions? Contact Chuck, W8PT at W8PT@portcars.org



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

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



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 K8/V for making the repeater available to area hams and for PCARS activities

~ 2016 Officers ~	2016 PCARS Appointments		nmittees
L VD PT SWT	ARRL Awards - DXCC WAS, VUCC, WAC	W8KNO	Joe Wehner
NV SSKL CSPD CSPD W8P7 KD8N	ARRL Awards - WAS	KB8UUZ	Tom Parkinson
President - Rick Kruis - K8CAV Vice President - Jim Wilson - AC8NT Treasurer - Amy Leggiero - KD8SKL 3 Year Trustee - Jim Aylward - KC8PI 2 Year Trustee - Chuck Patellis - W8P Year Trustee - James Andrews - KD8 Past President - Tom Sly - WB8LCD	Club Site Manager/Liaison	KC8PD	Jim Aylward
on on and ard telli	Contest Coordinator	W8PT	Chuck Patellis
uis - K8C Nilson - A giero - KD ylward - I c Patellis - Andrews Sly - WB	EchoLink	K8SRR	Steve Randlett
Rick Kr. Jim V y Legg Jim Ay Jim Ay Chuck	Field Day Chairman	W8PT	Chuck Patellis
Sich - Jan -	FYAO Chairman	W8PT	Chuck Patellis
President - R Vice President - Treasurer - Am Year Trustee - Year Trustee - Jear Trustee - Jear Trustee - Jear Trustee - Jear Trustee - Jeast President	Historian	KB8SZI	Peggy Parkinson
sident resider rruster - A Trustee Trustee ·	K8BF Callsign Trustee	K8FEY	Bob Hewett
esi Pre sur r Tr r Tru	K8BF QSL Manager	K8FEY	Bob Hewett
Pre Vice F Treas Year Year 'ear T	Membership Chairman	KC8PD	Jim Aylward
> 1 % 2 % 4	Net Control Manager	WB8LCD	Tom Sly
	Net Night - Club Manager	WB8LCD	Tom Sly
~ Meetings & Net ~	Newsletter Editor	KB8UUZ	Tom Parkinson
E E	OSPOTA Chairman	KB8UUZ	Tom Parkinson
Monday of month. 7pr rsday night Net at 8 pn	Public Information Officer	WB8LCD	Tom Sly
ndanth. ay nay nay nay 146.8	Secretary	K8MSH	Mark Haverstock
	Tech, Gen & Extra Class Manager	AC8NT	Jim Wilson
2nd ach Thu Slub on	Volunteer Examiner Liaison	N8RLG	Robert Gurney
a . O	Webmaster	KD8MQ	John Myers

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

THE RADIOGRAM

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 © 2016. 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: https://kbsuuz@portcars.org







