



# The **RADIOGRAM**

When All Else Fails ~ Amateur Radio Works

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

October 2016 - Volume 11 Number 10

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## Reports from OSPOTA

*Ohio State Parks On The Air*



## PCARS receives new ARRL Special Service Club Certificate

**PCARS goes  
QRP in  
the park**



**PCARS K8BF**

The Club that puts the FUN in Ham Radio!



# In This Issue of *The* RADIOGRAM

Volume 11 October 2016 Number 10

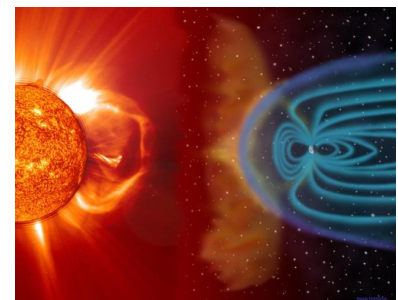
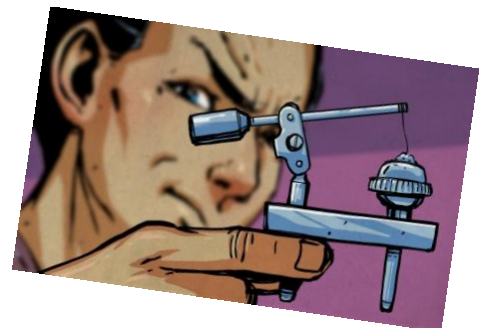


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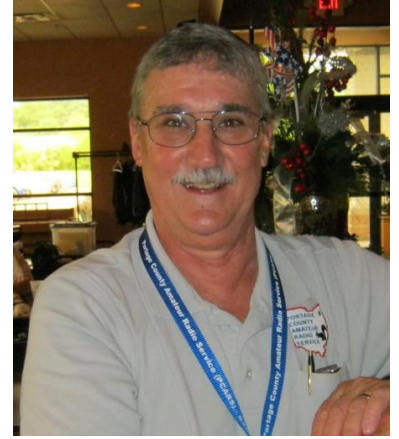
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## From the President

**Rick, K8CAV**  
PCARS President



It's hard to believe that it's October already but the hint of the leaves starting to change colors reminds us that fall is surely here. With winter weather not all that far away, now is the time to get outdoor tasks relating to amateur radio accomplished. There's no more frustrating thing than to have to curtail operating because something broke in winter weather that might not have come to pass if we had inspected and repaired it when the weather was still good. Use this time to look at antenna systems, grounding, back-up power systems, our vehicle's radio and antenna systems, and anything else that we use as amateur radio operators to inspect and repair so you can enjoy playing radio next to a warm fire when the snow is blowing this winter. This is also a great time to review emergency preparedness in your home and your vehicle for severe winter weather.

Heavy rain and winds a bit higher than maximums for balloon launching caused the cancellation of the PCARS balloon launch last month but Jim AC8NT is trying to reschedule yet this year. Based on several past launch payloads not being recovered he's also trying to find a launch location a bit further west of the original plan so the payload won't wind up in heavily wooded western Pennsylvania or Lake Erie. The payload for this launch includes an APRS package so even if you can't be part of the launch, you can still track it during flight. We all appreciate the effort that Jim and his group have been putting into getting a balloon aloft for PCARS! Stay tuned for upcoming announcements.

Although I did not get the opportunity to participate in OSPOTA this year, everyone I've talked to that did had a great time out in Ohio's parks. Even though the weather was a tad on the wet side, I'd bet we'll see great participation and scores again as usual with this contest. Besides the fun aspect of this contest one of the things OSPOTA highlights is the ability for amateur radio operators to turn out in large numbers to operate in a field environment using portable antennas to communicate with each other in a regional area. It's somewhat analogous to Field Day with the important difference being that communications are concentrated in a regional area, not nationally, and relying on NVIS propagation and antennas to do so. This is exactly how we would expect to communicate in the event of a regional communications support event. MARS, for whom regional NVIS is their bread and butter has to be envious of the numbers and successes that OSPOTA generates. Great job to all who participated and great job to Parky KB8UUZ and his team who put this event together annually.

The California QSO Party is this weekend, running from noon on Saturday October 1st to 6:00 PM Sunday October 2nd. Chuck and his crew have everything set up in the radio room at the club site to shoot for another First with this event. The contest is 30 hours long but propagation and/or lack of operators may curtail PCARS participation somewhat so if you have a definite day and time you want to operate, please let Chuck know as soon as possible. While walk-ins are certainly welcome, letting Chuck know in advance helps him plan better.

Thanks again, I really can't say it enough, to all of you who either help plan all of the events PCARS holds, or participate in them. You truly do make PCARS a club that stands above all the rest.

**PCARS**  
**Join Now**  
Discover the FUN



## *From the Vice President*

**Jim, AC8NT**  
PCARS Vice President



Fall has arrived and that means preparing for the “S” word. I love fall but dislike winter. Thanks to PCARS we have a lot of things to keep us busy going forward. We will be having presentations on 3D printing, the Ohio ARES Conference and WSPR radio. We are also scheduling some events at the club site including building an Ubiquiti mesh antenna (October 22), building a QRP antenna tuner (November 19) and building a digital mode transmitter and receiver for WSPR (January 21, 2017). Check our calendar for exact dates. Please reply to the QST’s so we can make sure we have enough materials for everyone. The Antenna SIG will also have a few interesting projects for members. Look for details to come.

I am also working on a field trip. It will be to Tiny Circuits. We have tried to schedule this trip in the past, but our club schedule has made it difficult. We are now working on a December date. It will be a Saturday and we are trying to get a same day tour of the drone company next door. These are very interesting companies with a lot to see.

The balloon launch has been, to say the least, the lost project. Bad weather stopped the September launch and we are now heading into winter. I have filed paperwork for late October and am awaiting an answer. I have been involved with four launches in the last three months and have lost the payload in each case. One went down in Lake Erie near Erie, PA. Two went down in Western PA in heavy woods and the last went down in West Virginia, again in heavy woods. I finished another APRS tracker for the club and we just need a weekend with good weather and no politicians arriving in Cleveland. NWS says the winds should be shifting south making for shorter chases to recover payloads. Recent chases from this area have been over 100 miles.

Personally a busy month has past. Spent most of the time finishing and polishing projects.

I am finishing a WSPR radio system using a home built receiver and transmitter for 20 meter WSPR contacts. The RF gear is connected to a Raspberry PI computer that supports the required Digital Modes. This has been great fun. WSPR is basically very low power beacons that we search for using software (a version of JT65) developed by Joe Taylor. I have received signals from New Zealand and South Africa that were transmitting at less than 1 watt. I hope to have a WSPR presentation at a future club meeting. I like to think of it as a very long distance Fox Hunt.

Remember it is time to winterize your shack. It is no fun replacing an antenna or feedline in the snow. It may be easier to launch lines into trees without leaves, but it is still a pain.

By the way. If you need a 15” VGA LCD monitor, we have a few free for the pickup at the club site. Just let Rick or me know if you are interested so we can arrange a pickup.

General class is going great. We have three students and we are using the new materials provided by the ARRL including the new Powerpoint Slide sets.

We are continuing to make the Extra videos as student help and the studio is available. They should be finished this winter. Getting lots of good help from KSU and Akron U students. We are completing over 215 graphics for the videos. It is a lot of work, but I am learning a lot about making videos.

Take care and enjoy the hobby!!

## Schedule of Events

On the calendar for upcoming meetings and activities are:

- October 1-2 - California QSO Party Contest at the Club Site
- October 10<sup>th</sup> - PCARS Meeting - Ohio ARES<sup>®</sup> Conference information
- October 15<sup>th</sup> - QRP Build Day - details to follow
- October 22<sup>nd</sup> - Building a Ubiquiti Mesh Antenna at the Club Site
- November 9<sup>th</sup> - VE Testing at Club Site 7 PM - Walk-ins Welcome
- November 12<sup>th</sup> - Get on the Air Day - At the PCARS Club Site
- November 14<sup>th</sup> - PCARS Meeting - 3D Printers - ELECTIONS -
- **November 14<sup>th</sup> - PCARS 11<sup>th</sup> Birthday**
- November 22<sup>nd</sup> - Ant SIG night - Building a QRP Tuner at the Club Site
- December - Club Christmas Party - details to follow
- December 12<sup>th</sup> - PCARS Meeting - WSPR Radio
- January 21<sup>st</sup> - Building a Digital Mode Transmitter & Receiver for WSPR at the Club Site

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

**Yearlong Event**

**National Parks on the Air**

Take part in this 2016 operating event, celebrating the US National Park Service Centennial.

**Get on the Air!**

**National Parks ON THE AIR 2016**

## 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.

**October 1<sup>st</sup> - December 3<sup>rd</sup>**

**AND at the end of the General Study Class on November 9<sup>th</sup> 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.
  - 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 PCARS - Wear a patch, use the stickers! See the club

Treasurer: Amy, KD8SKL or e-mail her at: [KD8SKL@portcars.org](mailto:KD8SKL@portcars.org)



# Contest Calendar

October 2016	
California QSO Party	1600Z, Oct 1 to 2159Z, Oct 2
Arizona QSO Party	1600Z, Oct 8 to 2359Z, Oct 9
Pennsylvania QSO Party	1600Z, Oct 8 to 2200Z, Oct 9
10-10 Int. 10-10 Day Sprint	0001Z-2359Z, Oct 10
10-10 Int. Fall Contest, CW	0001Z, Oct 15 to 2359Z, Oct 16
New York QSO Party	1400Z, Oct 15 to 0200Z, Oct 16
Illinois QSO Party	1700Z, Oct 16 to 0100Z, Oct 17
Stew Perry Topband Challenge	1500Z, Oct 22 to 1500Z, Oct 23
CQ Worldwide DX Contest, SSB	0000Z, Oct 29 to 2400Z, Oct 30

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

## OPERATING TIP - From the ARRL

### Use Log Check Results (LCRs)

As you're getting ready for this fall's contest season, now might be a good time to review log check reports from last year's contests to understand where you need to make improvements or practice.

Some contest sponsors provide LCRs automatically, while some require that you e-mail to request them. For example, if you're looking at an ARRL Phone Sweepstakes LCR, and you note having a higher error rate with the precedence, you should plan to be extra diligent in the contest this year. Perhaps practice using bandwidth, filtering, and noise reduction capabilities of your radio to better copy that field of the exchange.

If the Check field was your kryptonite last year, it could indicate an over-reliance on a pre-fill database. Remember to always, always, log what is sent.



Scott, N3FJP, author of the many and varied N3FJP logging programs ( <http://www.n3fjp.com/>), has also written an article for the August 2016 issue of QST entitled "*Kickstart Your Group with Club Contesting.*" ( <http://www.n3fjp.com/help/N3FJPclubCompetitionArticle.pdf> ) It might provide impetus and guidance for getting members of our club to contest together.



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



# Smaller Solar Cycles Lie Ahead

From the ARRL

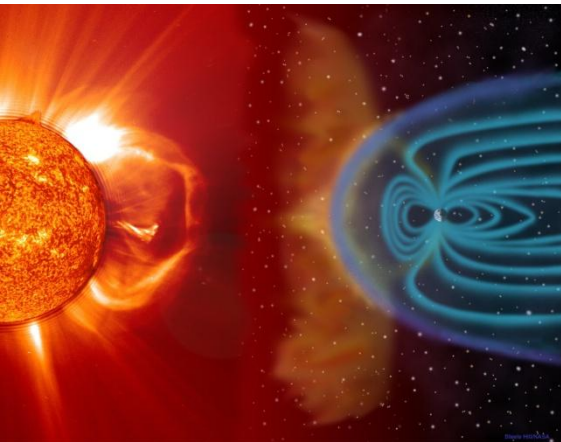
## Higher Bands Will Pick Up this Fall, Data Suggest Smaller Solar Cycles Lie Ahead

Propagation guru Carl Luetzelschwab, K9LA, says that, while conditions on 12 and 10 meters will pick up as they always do in the fall, F2 propagation on those bands will decline thereafter, with only sporadic E during the summer months as a possible saving grace. On the other hand, the lower bands - 160, 80, and 40 meters - should be good going forward, and 20 and 17 meters will be the mainstays of daylight HF propagation. Luetzelschwab made these observations during an August 23 World



Carl - K9LA

Wide Radio Operators Foundation (WWROF)-sponsored webinar “Solar Topics - Where We’re Headed.” He said data suggest that Cycle 24, the current solar cycle, will bottom out in 2020, and advised that radio amateurs may need to lower their expectations on the higher bands (and 6 meters) looking beyond that.



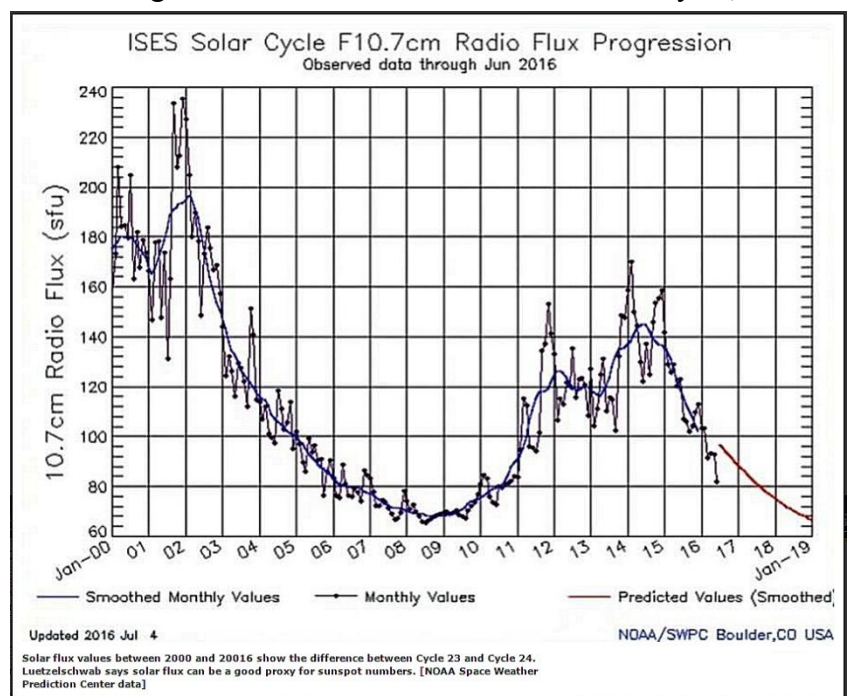
“I think the only conclusion we can make with some confidence is that we are headed for some small cycles,” he told his audience. He cited various evidence related to the Sun’s polar fields — which appear to be decreasing in strength, A index trends, and cosmic ray data to support his assertion. Luetzelschwab cautioned,

however, that past performance does not necessarily predict future performance.

“There seems to be a good correlation between how long a solar minimum is and the next solar cycle,” said Luetzelschwab. “The longer you spend at solar minimum, the smaller the next cycle.”

He observed that hams active since the 1950s and 1960s have experienced short inter-cycle solar minimums of approximately 2 years, until the one between Cycle 23 and Cycle 24, which lasted about 4 years. He also allowed that the science is not fully understood, and that some things appearing to be patterns may just be coincidences.

On the other hand, he said, it looks like the downward trend of disappearing sunspots has leveled off, suggesting that Cycle 25 may see a lower smoothed sunspot number as opposed to zero or near-zero sunspots.





Counting those sunspots can be a subjective business. “That’s a tough job,” he said of the task, noting that it appears observer bias also has been a factor over the years, affecting historical sunspot data. “We now have new corrected data that are believed to be more accurate.”

Luetzelschwab’s article “The New Sunspot Numbers,” appearing in the October issue of QST, will discuss the new sunspot numbers.

Luetzelschwab cited historical sunspot cycle data going back centuries - including the “Maunder Minimum” of zero and near-zero sunspots between the years 1645 and 1715 and a later, less-drastric “Dalton Minimum.” He pointed out that over the last 11,000 years, 19 notable grand maximums - including Cycle 19 and the cycles around it - and 27 notable grand minimums were recorded. “We’re likely to have more of both grand maximums and grand minimums in the future,” he predicted. The current system of numbering sunspot cycles begins with Cycle 1 in the mid-18th century.

“We don’t fully understand the process inside the Sun that makes solar cycles,” Luetzelschwab said. “Thus, you should exercise caution with statements seen in the news.”

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For more information, check out K9LA’s web site at: <http://k9la.us/index.html>



# OSPOTA on Amateur Radio Newsline

## DESPITE RAIN, OHIO STATE PARKS GET ON AIR

September 16, 2016 # 2029



**PAUL/ANCHOR:** The National Parks on the Air centennial doesn't offer the only ham radio celebration of beautiful places in the great outdoors. There are plenty of parks in Ohio that recently got into the act, too. Here's Amateur Radio Newsline's Stephen Kinford, N8WB.



**STEPHEN:** Organizers of the 9th annual Ohio State Parks On The Air contest were counting on more operators than ever this year on Saturday, September 10, as 59 of the state's 74 parks were being activated. What they hadn't counted on was the storm front that swept through Ohio halfway through the eight-hour contest. Hail, rain, wind and lightning prompted most of the stations to halt operations and only a few got back on the air after the weather had cleared.

Like its counterpart at the national parks level, which it helped inspire, the Ohio state contest encourages outdoor and portable operations and is also viewed as a good way for hams involved in emergency communications to assure that their gear is functioning. It was created in 2008 by the Portage County Amateur Radio Society <should be Service>.

According to the event's chairman, Tom KB8UUZ, even as organizers await arrival of final scores and statistics by November 1, they are already working on the event for 2017, which will be held September 9. They're hoping for the usual high level of participation, and definitely better weather.



For Amateur Radio Newsline, I'm Stephen Kinford, N8WB, in Wadsworth, Ohio

Newsline Home Page: <http://www.arnewsline.org/> Audio: <http://tinypurl.com/hunwawb>

From the DX Engineering Face Book page:



**DX Engineering**

September 9 at 4:00pm · 🌐

The 9th Annual Ohio State Parks On The Air Amateur Radio Contest is Saturday, 9/10, and DX Engineering's own Tom, KB8UUZ, is the chairman! Do you plan to participate?



### Ohio State Parks On The Air

Make sure to mark your calendar for the 2016 Ohio State Parks On The Air (OSPOTA) contest – September 10, 2016. The contest is always held on the first Saturday following the Labor Day holiday. Each year this event has grown and we anticipate another year of

[OSPOTA.ORG](http://OSPOTA.ORG)

## Local Group (AB8DD) Expands Knowledge & Contacts



**Casey S. Elliott**  
Urbana Daily Citizen



Members of the Champaign Logan Amateur Radio Club erect a 20-meter antenna before the Ohio State Parks on the Air competition Sept 9. The competition was Sept. 10.

Ham radio enthusiast Ron Hunt shows some of the tools of the trade. He is part of the Champaign Logan Amateur Radio Club, which competes against other groups across the state to score the most contacts.



**ST. PARIS** – For eight hours on Saturday, local amateur radio enthusiasts worked in teams to make contact with as many people as possible.

Several members of the Champaign Logan Amateur Radio Club spent their afternoon and evening in Kiser Lake State Park contacting other ham radio members worldwide as part of the Ohio State Parks On the Air contest. Amateur radio groups gather in the Ohio state parks to take part.

Amateur, or “ham” radio, is radio technology not connected to a cell phone network or the internet. Users must be licensed by the Federal Communications Commission (FCC) and each has an FCC-assigned call sign.

And although the communication is over radio waves, it can be visual, audio or text, and the range is global, local contest organizer and Urbana resident Wayne Brunotte said.



**Members of the Champaign Logan Amateur Radio Club set up for the Ohio State Parks On the Air competition Sept. 9 at Kiser Lake State Park. The competition was Sept. 10.**

The local group won the contest five of the past eight years, he said. The results of Saturday’s contest won’t be known for a couple of months.

“If it wasn’t for amateur radio, they wouldn’t have ever discovered cellphones and so on,” Brunotte said. “The government really holds amateur radio in high regard because they know we’ll always be able to communicate.”

Ham radio can operate if all other communications technology is down, as long as there is a power source, Brunotte said. The radios can be powered by batteries fueled by a generator or solar power; they don’t just have to be plugged into an outlet.

“This is good practice for an emergency,” Brunotte said. “When everything else fails, ham radio will be the last thing you can communicate with. We have quadruple redundancy. Plus we all have home stations.” When there are hurricanes, ham radio enthusiasts establish networks for people to check on loved ones who may be in the path of the hurricane.

On Sept. 11, 2001, cell phone networks were jammed as people checked on relatives in New York City, but ham radio was not clogged by phone or text traffic, Mechanicsburg resident Rick Weber said. Ham radio enthusiasts can contact the International Space Station if they wish, as it has a ham radio on board, Brunotte said.

### **Competition and camaraderie**

“What I like about what we’re doing here is it’s like a radio sport. It’s competitiveness. Plus, along with that, we get the ability to practice these setups in case it’s ever needed in an emergency,” Brunotte said of the weekend competition.

Brunotte, a process manufacturing engineer at Honeywell, got interested in radio at age 15. He started out on the CB, or “Citizens Band,” which is a different frequency and doesn’t require an FCC license to use. He moved into ham radio to expand his knowledge. His call sign is AB8DD, and it was that call sign used Saturday for all of the club’s contacts in the contest. “It’s exciting to me, meeting new people, meeting people with similar interests,” he said.

Urbana resident Judah Risner, call sign KE8BCA, got into ham radio a little over a year ago, when he and his father-in-law got in touch with someone who trained people to get licensed. Risner, a materials supply chain worker at Navistar, said he loves the ability to talk to others and work with others on his hobby. “There’s a lot of camaraderie,” he said. “I like the fact that there’s a good survival aspect to it. If all your cell phones go down, this will still work. It’s not reliant on a service. It does need power, but that can be solar, or a generator, or something you’ve made yourself. It doesn’t have to be electric plugged into an outlet.”

Ham radio has always interested Larry Haverkos of Urbana. The retired Urbana University professor first learned about ham radio when he was a kid. One of his neighbors was a ham radio operator.

“He had a setup in his attic and he let me come and look at it,” he said. “It always fascinated me. I thought I would do it, but I never had time. When I retired, I figured this would be something good to do. It was a totally new learning curve.” Haverkos, whose call sign is K8UUU, taught sociology and cultural anthropology at Urbana University. He said he didn’t know anything about electronics, but the other operators in the club helped him figure it all out. “I had no idea how hard it is,” he said. “Things you can learn pretty quickly when you are 12, but in the late 60s you don’t learn them so quickly.”

### **Collecting contacts, anything goes conversations**

“It’s like somebody who collects coins or stamps or buttons or bottle caps. We collect contacts,” Brunotte said. Some ham radio folks will take vacations with their equipment, going to places that don’t typically have someone with a ham radio, to establish contacts for their (and other people’s) collections. Ham radio enthusiasts come from all walks of life, but they share the passion for finding those contacts.

**The Champaign Logan Amateur Radio Club has won the Ohio State Parks On the Air competition for the past five years. The group has participated eight years. Shown are, back from left, Richard Marker, Ron Hunt, Wayne Brunotte, Tom Brinnon, Judah Risner, Larry Haverkos, front from left, Rick Weber, Greg Parker and Jim Parker.**



Ham radio is open to anyone who tunes in. All conversations are over the radio waves, and all can participate if they wish. Haverkos focuses on long distance contacts. He said he likes talking to people on the other side of the world. If you don't speak the same language, there are simple radio codes to establish the contact. Sometimes, Haverkos said, he will just sit and listen to a conversation.

"There are some very chatty people that will just gab. That's fun, too," he said. But there is one golden rule. "You don't talk politics," he said. "It's not a law, just an observed rule. Aside from routine openers being the weather, people talk about everything."

A lot of the participants know enough about electronics and materials that they create their own antenna and radio equipment. There are also do-it-yourself kits available.

Weber (call sign N8XIX), who works at Cisco in IP Telephony, got interested in ham radio as a result of his grandfather. His call sign was his grandfather's. Weber likes the digital communication side of ham radio, specifically instant messaging via the radio waves. It's like an internet chat room without the internet, he said.

"You can sit and watch somebody type to you," he said. "It's just coming from my radio to their radio, no internet between." He said one of the fun things to do is just hunt for a contact: "It's like fishing for fish." And Weber is passing the hobby on to his 4-year-old son. "He's at that impressionable age where everything is a wonder," he said.

For more information about ham radio, visit the National Association for Amateur Radio at [www.arrl.org](http://www.arrl.org). For more information about the Ohio State Parks on the Air contest, visit [www.ospota.org](http://www.ospota.org).

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Reprinted by PCARS with permission of the author, Casey S. Elliott. Originally posted on September 12, 2016 by the URBANA DAILY CITIZEN Casey S. Elliott may be reached at 937-652-1331 ext. 1772 or on Twitter @UDCElliott or by e-mail to - [celliot@civitasmedia.com](mailto:celliot@civitasmedia.com)

## OSPOTA 2016 Feedback



80 Meters was definitely our money band. This is the first time we have tried this contest, and we set up three stations at John Bryan State Park near Yellow Springs. We will be back next year for sure. Lightning forced us off the air for about an hour, and we had to



keep the radios covered for a while after that. I don't remember our points total -- maybe 5,300 or something like that.



Our club has about 100 members, and at least 13 or so showed up to help and operate. That's a really high percentage, and we had a great time.



Some pictures of our event can be found on our Facebook page. Just search for BARC Bellbrook Amateur Radio Club.

73,  
Ken W8ASA

=====

Here's a photo that Doug Lowder, W8EOT sent in showing his "Worked All Ohio State Parks" award on the wall with all his other OSPOTA certificates.



Here's a shot of the K8IV OSPOTA set up at Tinkers Creek. Ed, K8IV on the air on 40m and WB8LCD's station on 80m in the foreground. Operators at Tinkers Creek were Ed-K8IV, Amy-KD8SKL and Tom-WB8LCD.

**Some noteworthy items from OSPOTA at RFK - Rock Fork Ohio State Park:**



Lee Bishop, N8YHU, made his first HF contacts and did such a good job he was



left alone with the rig not once, but twice! Thanks to him a number of contacts were entered in the log.



Dave, KD8TUR, operated the 20 meter station. Since he largely operates CW, phone operation was rather new to him. He couldn't wait to get home and look up where his first DX contacts were from.



There are two events each year that I truly enjoy OSPOTA being one the Other is The AIR FORCE MARATHON. With the OSPOTA being held on September the 10th the AFM planning committee has a MUST attend briefing for Amateur Radio Operators, also held on September 10th. If it comes down to choosing one or the other I choose OSPOTA. The AFM is being run on September 17th I can still help if they allow me to.

I hadn't given it much thought about making contact with all of the Ohio state parks only the ones that were manned. Now my goal is to make contacts with them all. To the people who have done it already my hat is off to them, job well done! Maybe next year during the "Grand Tour" many of us will reach the same goal.

My hope of reaching as many stations as possible proved impossible during OSPOTA. Listening on 20-40-80 meters we were only able to hear one (1) OSPOTA station in Ashtabula, but he didn't hear us. Talking to the leader of another group they had made contact with 35 stations most if not all on 80 meters. I must have had my head stuck somewhere where it couldn't see sunshine. Because I did not load in my 80 meter antenna bad, bad decision on my part. While we four were at Cowan Lake SP sitting on a knoll under a tree in the shade overlooking the lake, the wind was blowing a nice and gentle breeze; we had just completed eating Biscuits and Gravy at the camp store and were getting ready to set up our antennas. Two of my fellow hams were sick one recovering from an operation the other just not feeling well, kinda of how I started out my morning but by the time we were finished with the antennas I started feeling better. The other ham brought his multi antennas but like us was unable to hear Ohio stations we both worked Louisiana and Texas just not Ohio.

Contacts or no contacts our Hobby of Amateur Radio brought us four together just sharing the companionship of others made this one great day. I hope others made more contacts than we did and had great fellowship while enjoying the day.

Larry, KB8EMD

---

## OSPOTA RESULTS WILL BE IN THE NOVEMBER ISSUE OF *The RADIOGRAM*

### *Ohio State Parks On The Air*



Call Search  GO!

**CW & SSB Filters**

**INRAD**  
International Radio  
[www.inrad.net](http://www.inrad.net)

New to Ham Radio?  
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- [Strays](#)
- [Survey Question](#)

**Operating**

- [Contesting](#)

### eHam.net Calendar of Events

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<b>Title:</b>	Ohio State Parks On The Air
<b>Event Type:</b>	Contests
<b>Description:</b>	9th annual Ohio State Parks On The Air (OSPOTA) contest. 80/40/20/15M SSB. 1600-2400UTC 10 Sept 2016. Contact operators in the Ohio State Parks. Rules, entry form, etc. at <a href="http://www.ospota.org">www.ospota.org</a> . Have a FUN day contesting !
<b>Starting Date:</b>	09/10/16
<b>Ending Date:</b>	09/10/16
<b>State:</b>	OH
<b>URL:</b>	<a href="http://www.ospota.org">http://www.ospota.org</a>
<b>Contact:</b>	KB8UUZ
<b>Email:</b>	<a href="mailto:info@ospota.org">info@ospota.org</a>

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



On September 29, 2016, the Ohio Department of Health coordinated a Mass Fatality Management functional exercise for the Portage County Coroner's Office and the Portage County Health Department. A major component of the exercise was the activation of the Portage County OHS/EM Emergency Operations Center.



The EOC's function in an exercise like this (or in a real world event) is to support and assist local responders and their home agencies by coordinating the identifying, locating and obtaining of resources necessary to supply those responders. The EOC may also serve as the home base for the Public Information Officers team that is responsible for gathering relevant information about the incident and managing its release to the public.



**HEALTH DISTRICT**

The EOC can be an extremely busy place during an incident or exercise like this. Information and requests flow in from a variety of sources using phone, text messages, email and radio. Additionally, radio communications among responding agencies may be managed through the EOC's Radio Room.

A special challenge for the EMA is having adequate support staff for the EOC. The EMA only has three full-time and one part-time employee yet more staff are needed when things get busy.

This provides the perfect opportunity for members of the Communications Unit to provide EOC support, both in the Radio Room and general staffing of the EOC (phone calls, messages, status board, etc.) This is what was envisioned when the original RACES team made the conversion to the Communications Unit.

When we were just the RACES team we were largely limited to those operations that FCC rules envisioned for RACES units. Now we can perform whatever tasks are necessary. Comms Unit members become versatile and much more appreciated by our served agencies with these expanded roles.

For this exercise, Rick, K8CAV, as Deputy Radio Officer was in charge of the CU volunteers, which included Steve - K8SRR, Bob - K8FEY, and Bob - N8KBX. Mike - KD8FLZ, was also actively involved as the Logistics Officer for the EMA. Steve was deployed to the Health Department to assist with their radio communications. All of the exercise radio comms were on the MARCS system.



The exercise lasted four hours and provided a terrific real-time learning environment for CU members as well as a great demonstration of how the valuable assistance that they can provide.



# History of the Diode



*Steven Dufresne*



The history of the diode is a fun one as it's rife with accidental discoveries, sometimes having to wait decades for a use for what was found. Two examples of that are our first two topics: thermionic emission and semiconductor diodes. So let's dive in.

## VACUUM TUBES/THERMIONIC DIODES

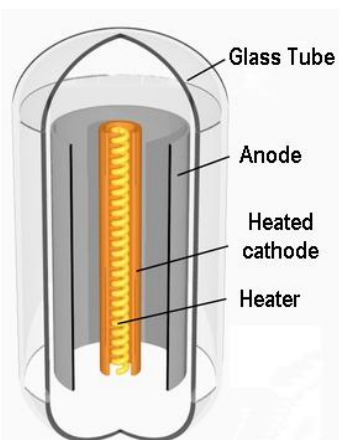
Our first accidental discovery was of thermionic emission, which many years later lead to the vacuum tube. Thermionic emission is basically heating a metal, or a coated metal, causing the emission of electrons from its surface.

### Electroscope

In 1873 Frederick Guthrie had charged his electroscope positively and then brought a piece of white-hot metal near the electroscope's terminal. The white-hot metal emitted electrons to the terminal, which of course neutralized the electroscope's positive charge, causing the leafs to come together. A negatively charged electroscope can't be discharged this way though, since the hot metal emits electrons only, i.e. negative charge. Thus the direction of electron flow was one-way and the earliest diode was born.



Thomas Edison independently discovered this effect in 1880 when trying to work out why the carbon-filaments in his light bulbs were often burning out at their positive-connected ends. In exploring the problem, he created a special evacuated bulb wherein he had a piece of metal connected to the positive end of the circuit and held near the filament. He found that an invisible current flowed from the filament to the metal. For this reason, thermionic emission is sometimes referred to as the Edison effect.



**Thermionic diode.** By Svjo [CC BY-SA 3.0], via Wikimedia Commons

But it took until 1904 for the first practical use of the effect to appear. John Ambrose Fleming had actually consulted for the Edison Electric Light Company from 1881-1891 but was now working for the Marconi Wireless Telegraph Company. In 1901 the company demonstrated the first radio transmission across the Atlantic, the letter "S" in the form of three dots in Morse code. But there was so much difficulty in telling the received signal apart from the background noise, that the result was disputed (and still is). This made Fleming realize that a more sensitive detector than the coherer they'd been using was needed. And so in 1904 he tried an Edison effect bulb. It worked well, rectifying the high frequency oscillations and passing the signals on to a galvanometer. He filed for a patent and the Fleming valve, the two element vacuum tube or thermionic diode, came into

being, heralding decades of technological developments in many subsequent types of vacuum tubes.

Vacuum tubes began to be replaced in power supplies in the 1940s by selenium diodes and in the 1960s by semiconductor diodes but are still used today in high power applications. There's also been a resurgence in their use by audiophiles and recording studios. But that's only the start of our history.

## SOLID-STATE/SEMICONDUCTOR DIODES

**Cat's whisker.** By Holger.Ellgaard [CC BY-SA 3.0], via Wikimedia Commons

At almost the same time that Frederick Guthrie was discovering thermionic emission with his electroscope, in 1874, Karl Ferdinand Braun was investigating conductivity of metal salts in solution. He realized that some of the salts, such as galena (aka lead-sulfide), conducted when not dissolved. He subsequently discovered that its resistance varied depending on the magnitude and polarity of the voltage and that this effect worked best if the electrode was a pointed wire. And thus he invented the galena (aka lead-sulfide) point-contact rectifier. Galena is a semiconductor and so this was a semiconductor diode.



This is what became known as the cat's whisker detector and was used in 1894 for experiments with microwaves. In 1906, G.W. Pickard patented a silicon detector while Henry Harrison Chase Dunwoody patented the carborundum detector. And so began the widespread use of the cat's whisker in crystal radios which were made in the millions.



**Germanium diode.** By Morcheeba [CC BY-SA 2.5], via Wikimedia Commons

But by the 1920s vacuum tubes largely replaced the use of the cat's whisker detector. However, during World War II, point-contact semiconductor detectors, both silicon and germanium, were revived for microwave radar detectors since the vacuum tube detectors couldn't work at those frequencies.

After World War II, germanium diodes that didn't have a point-contact that needed adjusting were manufactured in large quantities and proved to be as sensitive as galena. Since they didn't need the adjusting that the cat's whisker detector used, that began the age of crystal radios with modern semiconductor diodes.

## MERCURY-ARC RECTIFIER

**Mercury-arc rectifier**

A scary sounding and eerie looking type of diode was the mercury-arc rectifier. This was invented in 1902 by Peter Cooper Hewitt and developed in the 1920s and 1930s. These were used until the 1970s for converting high voltage AC and high current AC into direct current. They consisted of a container of mercury vapor provided by a pool of mercury at the bottom. The pool of mercury also acted as the cathode. Also in the container were carbon anodes. The mercury emitted electrons freely whereas the anode emitted very few. An arc was struck at the pool, which ionized the mercury vapor between the cathode and the anode, creating the conducting path. Applications included battery charging, arc lighting systems, trolleys, subways and electroplating.



Mercury-arc rectifiers were replaced in the 1970s by thyristors. But since thyristors have a gate contact in addition to the anode and cathode, we won't cover them here.

## COPPER-OXIDE AND SELENIUM DIODES

Selenium diodes are another example of an early discovery followed by a delayed practical use. The first selenium diode was constructed in 1886 by C.E. Fitts but was not made practical until the 1930s. It eventually found use in radios, high current battery chargers, televisions and photocopiers. They were made of a steel plate with a layer of selenium and then a cadmium-tin layer between which a layer of cadmium-selenide formed. This selenium and cadmium-selenide formed a semiconductor-semiconductor junction. They could be easily stacked indefinitely to withstand high voltages. They were replaced in the 1960s by silicon rectifiers which have a lower voltage drop. In 1961 IBM tried to develop computer logic using selenium diodes due to their low cost but they proved to be not reliable and were replaced with silicon diodes.

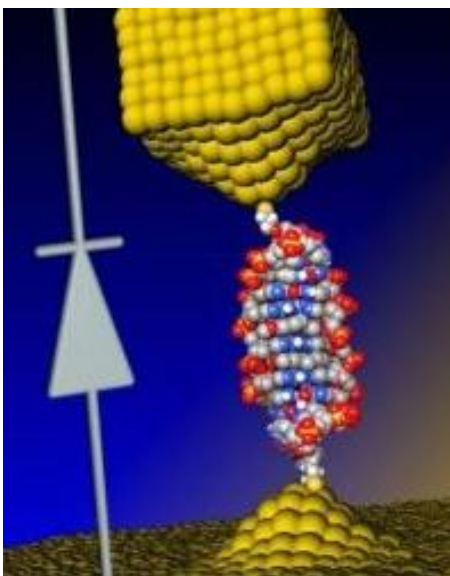


Copper-oxide diodes were invented around the same time as selenium diodes and had similar uses. In their case the copper-oxide layer on copper metal formed the semiconductor layer. Like selenium diodes, they could be stacked to withstand high voltages. These also were replaced by silicon diodes.

## SCHOTTKY DIODE

It's perhaps hard to find who invented the Schottky diode because even the cat's whisker detector is a point-contact Schottky diode. A Schottky diode is formed of a metal in contact with a moderately doped n-type semiconductor and cat's whiskers fits that description. The diode is named after German physicist Walter H. Schottky who came up with physics dealing with the metal-semiconductor junction.

## DNA NANO-DIODE



**DNA nano diode (Image credit: University of Georgia/Ben-Gurion University)**

And why not end this history of the diode with some fun recent history? Published in April 4, 2016 in the journal Nature Chemistry, researchers from the University of Georgia and Ben-Gurion University reported that they have made a diode from DNA. They did this by inserting two small coralyne molecules at specific locations in a custom-designed 11-base-pair DNA duplex. When 1.1V was applied across the structure, fifteen times higher current flowed in one direction versus the other depending on the polarity. This may have an impact on the development of molecular electronic devices, but as we saw above, there's sometimes a delay before the practical application. But as we also know, it's worth the wait.

## CONCLUSION

Where does word diode come from? William Henry Eccles, an English physicist, came up with it in 1919 by combining the Greek roots di, meaning 'two', and ode, meaning 'path', though some sources say the ode was borrowed from 'electrode' which was coined by Michael Faraday.

There are many other types of diodes that can be covered but space and the difficulty in finding the history of some demands we stop here. However, if you know of any other interesting steps in the history of the diode we'd love to hear about them.

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Steven Dufresne: Contributor. Steve is a lifelong maker, amateur scientist and teaching addict, getting his start with his own workbench beside his father's in the basement making spaceship miniatures and movie props from scratch. Originally a self-taught programmer of BASIC and assembler on a TRS-80, he has a Computer Science degree from the University of Ottawa. Career-wise, in addition to programming, he's traveled the world teaching engineers how to write applications with QNX, been a solar installer, and now spends much of the time making stuff and publishing it through his RimstarOrg YouTube channel and [www.rimstar.org](http://www.rimstar.org) website.

## Hamfest Calendar

**10/16/2016 - Conneaut ARC Hamfest** - Location: American Legion Post - 272 Broad Street - Conneaut, OH 44030 - Website: <https://www.facebook.com/events/1109527472432186/> - Public Contact: Michael Anderson, W3MJA - 1844 Dee Jay Avenue Erie, PA 16510 - Phone: 814-384-0443 - Email: [w3mja@yahoo.com](mailto:w3mja@yahoo.com)

**10/23/2016 - Massillon ARC Hamfest** - Location: Massillon Boy's and Girl's Club - 730 Duncan Street SW - Massillon, OH 44646 - Website: <http://www.w8np.org> - Sponsor: Massillon Amateur Radio Club - Contact: Terry Russ, N8ATZ - 3420 Briardale Drive NW - Massillon, OH 44646 - Phone: 330-837-3091 - Email: [truss@sssnet.com](mailto:truss@sssnet.com)

**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](mailto: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\\_gwCLfTw-FPuBcYtA](https://www.youtube.com/channel/UCFVsDD_gwCLfTw-FPuBcYtA)

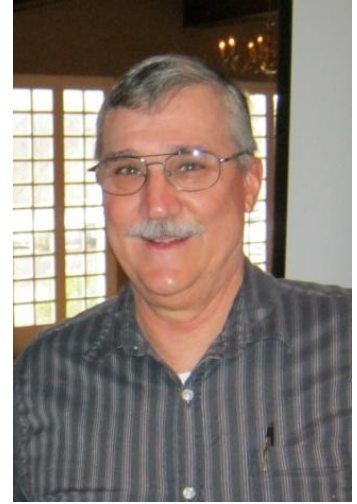


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## Essential Support Function - Communication

**Rick, K8CAV**  
Deputy Radio Officer, Portage County OHS/EM  
Communications Unit/RACES



One of the most important functions during any disaster or incident is the ability to communicate within and between responding agencies. Often times the communications assets available to responding agencies become insufficient and additional help becomes necessary. Every county in Ohio has an Emergency Management Agency (EMA) that is responsible for providing and coordinating assets and help to those agencies when needed. The EMA has fifteen key groups named Essential Support Functions to provide assets and help in key areas, one of those being communications. In Portage County, Essential Support Function 2 Communications (ESF-2) provides communications assets, help, and expertise and is named the Communications Unit. This unit is an official part of the Portage County EMA, and is staffed in its entirety by PCARS Amateur Radio Operators who have been trained in the Incident Command System (ICS) in addition to their licenses, training and experience as Amateur Radio Operators and communicators. Members of the communications unit train regularly through bi-weekly radio net operations, monthly training meetings, and quarterly drills in topics involving both communications and operations within an ICS environment.



The communications unit recently participated in the annual City of Ravenna Cruise-In on August 31st. The Ravenna Police Department contacted the Portage County EMA to request the county's Mobile Command Post, Communications Unit members to staff it, and wireless video surveillance at key points at the event. The Communications Unit responded by delivering and staffing the mobile command post to the site, and establishing three video surveillance cameras in the area, linked to the mobile command post via MESH networking. The operation was successful and below is a quote from a letter sent to the Portage County EMA Director, Ryan Shackelford from Captain Dave Rarrick of the Ravenna City Police Department: *"On behalf on The City of Ravenna, please accept our collective "thank you" for assisting with this year's 2016 Ravenna Cruise In. We would not have been able to properly control the event without the use of the Command Vehicle and Coms Unit personnel. Certainly a high point was the ability to see our event's critical locations using the mesh network video system set up by the Coms Unit in the Command Vehicle. We were able to view, "real time", event activities and determine safety issues. For the Incident Commander this was a real PLUS!"*

The years of planning and training by members of the communications unit have enabled them to provide the level of support that elicited the comments by Captain Rarrick and continued training will enable the communications unit to provide support whenever requested for the welfare of our community. Thanks to Mike KD8FLZ, Steve K8SRR, Sandy KD8JCY, Bob KZ8RLD, and Bob N8KBX for their participation and professionalism in assisting with this event.

The communications unit is always looking for Amateur Radio Operators willing to volunteer their time to the Portage County EMA. If you are interested, please send an e-mail to [racesportage@aol.com](mailto:racesportage@aol.com) and you will receive information and an application.

## From the Portage County EC

**Mike, KD8FLZ**  
Ohio ARRL EC for Portage County



I'd like to mention the public service events local hams have participated in this year. Supporting public service events is important because many agencies are non-profit organizations and don't have the finances to hire commercial communicators, and also because it makes Amateur Radio very visible to the public.

From June through September ham volunteers have helped with radio communications for the Great Western Reserve half triathlon starting at the beach at West Branch reservoir with the finish line in downtown Newton Falls, the Marlene Watt 5k Memorial Race in Ravenna, the Headwaters Adventure race in Mantua and ending with the 9 mile Mantua Potato stomp. These events are a lot of fun and you can gain some great experience with programming radios, radio etiquette and just some all around fun.

I'd like to remind everyone you do not have to be a member of RACES, ARES® or even a club member to volunteer, as long as you have your ham license and, of course a radio. If you've never tried it or it's been a while and you think you would like to give public service a try just drop an email to myself, Mike - KD8FLZ, Jim - KC8PD or Rick - K8CAV. Thanks.

## Happy Birthday PCARS Members

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

<b>KD8MQ</b>	<b>John Myers</b>	<b>K8HYM</b>	<b>Mark Schmidt</b>
<b>KD8MLE</b>	<b>Jonathan Fox</b>	<b>KD8IUA</b>	<b>Michael Battershell</b>
	<b>Nathan Sheline</b>	<b>KD8EPG</b>	<b>Ken George</b>
<b>KE8EFG</b>	<b>Paul Hyland</b>	<b>K8DER</b>	<b>Donald Robinson</b>
<b>K8CAV</b>	<b>Rick Kruis</b>	<b>KD8ZXD</b>	<b>Robert Sheppard</b>
<b>KE8BWA</b>	<b>Andrew Roland</b>	<b>K8AAB</b>	<b>Bob Evans</b>
<b>WA8AR</b>	<b>Anthony Romito</b>	<b>N8ONI</b>	<b>Pat Karl</b>
<b>WA8SAJ</b>	<b>Jeff Covelli</b>	<b>K8JAA</b>	<b>Jane Avnet</b>
<b>KC8RKD</b>	<b>James Weber</b>	<b>W8GWI</b>	<b>David Seckel</b>

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# 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!

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

October	
6	N8QE
13	WA8AR
20	N8RLG
27	KD8SKL

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

The PCARS net is **BIG Fun** - tell your friends to check in via RF or EchoLink! If you have not been a Net Control Operator for PCARS and would like to give it a try, please contact me at: [WB8LCD@portcars.org](mailto:WB8LCD@portcars.org) Everyone who is a club member is welcome to have a turn!

December	
1	K8CAV
8	N8QE
15	K8IV
22	NR8W
29	WB8LCD



As you are all getting ready for the Thursday nets I want to point out that over the past 10+ years I have had a small but dedicated crew of Net Control Operators for the PCARS net. They are all volunteers, and I want to thank them and let them know that they are appreciated for their dedication to the net.

Soon, I'll be working on putting together the net control rosters for 2017. If a few of you would volunteer to take just 2 or 3 turns at NCS through the whole next year, it would go a long way to lightening the load for the volunteers who have kept it going all these years.

It's not a tough job, we have a script to run you through it. In addition to helping the club, it helps you by getting you comfortable with running a net (just in case you're ever called on in an emergency situation), it helps you to be better known by the other members of PCARS, and, it helps you get a better familiarity with the other PCARS members, putting the names and calls together. It will make you a better ham!

So, I'm asking you now, if you would be willing to be on the roster just 2 or 3 times next year as a new NCS, I would appreciate if you would send me an email ([WB8LCD@portcars.org](mailto:WB8LCD@portcars.org)) and let me know. At this point, if you had specific dates you wanted to do it put that in the email and I should be able to accommodate that! This very small commitment would be greatly appreciated.

## LoTW - TQSL Update

*From the ARRL*



### Logbook of The World to No Longer Accept Contacts Signed by TQSL Versions Earlier Than 2.0.

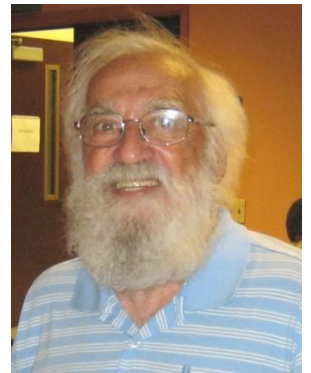
As of 1400 UTC on January 16, 2017, ARRL Logbook of The World (LoTW) no longer will accept contacts that have been digitally signed by versions of TQSL earlier than version 2.0.

Users of earlier versions are encouraged to upgrade as soon as possible, as older TQSL versions contain uncorrected defects and display inaccurate error messages. The current versions of TQSL for Windows, OS X, and Linux are available online.

To date, LoTW has confirmed some 135 million contacts for its 90,000 users. - Thanks to Norm Fusaro, W3IZ from the ARRL.

## Hamfest Report - Cleveland

*Joe, W8KNO*



I had not been to the hamfest four two years and I expected the worst. However, I was pleasantly surprised as the flea market was nearly 20% larger. I picked up a few items and have

not figured what to do with them yet. Inside, it appeared that half the vendors were gone, but some were outside. It is like most Hamfests today - Getting Smaller.

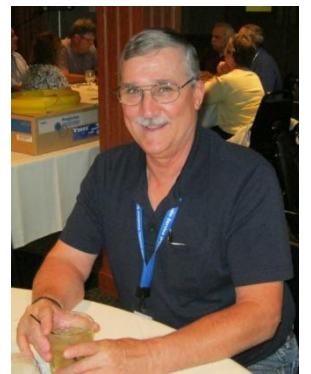
I will be going again next year and look forward to all the good buys. This year some of the vendors, during the last hour, were selling two for the price of one!



## Digital Special Interest Group

*Rick, K8CAV*

PCARS will be holding its monthly Digital Special Interest Group meeting on Tuesday October 4th at 7:00 PM at the club site in Ravenna. We'll be available to help with questions or issues you may be having digitally so bring your questions and bring your gear!





# JOTA - Jamboree On The Air

## Jamboree on the Air (JOTA) Stations Encouraged to Register and File Post-Event Reports

Scouting's Jamboree on the Air (JOTA) officials are asking JOTA 2016 participants not only to register <http://jotajoti.info/sign-up-for-jota-joti/> for this year's event, but to follow up with a post-JOTA report. As an incentive, all stations filing reports will automatically be entered to win an Icom ID-51A hand-held transceiver. The 59th annual JOTA takes place October 14-16.



“Last year we had 400 stations register but only 200 stations file a report,” said JOTA Coordinator Jim Wilson, K5ND. “We’re going to improve that this year. Icom America and Ray Novak, N9JA, have stepped up to help us with a considerable incentive.”

Wilson pointed out that only BSA stations will be eligible to win. “These prizes are for the station. It’s up to you to determine who gets it or how you share it,” he said. “Of course, everyone who files a report will receive the 2016 Jamboree on the Air Certificate.”

More than 1 million Scouts in 150+ countries — at nearly 18,000 stations — are expected to take part in JOTA 2016, engaging with other Scouts to talk about Amateur Radio and their Scouting experiences. “JOTA is about conversations across town and around the world, rather than about contacts,” Wilson said.

The JOTA reporting system will open right after JOTA weekend; reports are due on November 1, with the prize drawing held that week. “Designate someone on your team to collect the information needed for your report,” Wilson recommended, pointing to a list of “best practices” <http://www.k2bsa.net/jota-station-reports-best-practices/> to ensure a report that “truly captures your event.”

JOTA Guidelines for Amateur Radio Operators [http://www.scouting.org/jota/operators\\_guides.aspx](http://www.scouting.org/jota/operators_guides.aspx) available online. Among other advice, the operating guide points out that US Scouts may speak directly with Scouts in other countries as long as a third-party agreement exists between that country and the US. A Scout station spotting cluster <http://www.pi4raz.nl/jotacluster/cluster.phpalso> will be available this year, to show who’s on the air and where. Dave Edwards, KD2E, and Andy O’Brien, K3UK, have developed a Scout scheduling page for teams to post their frequencies.

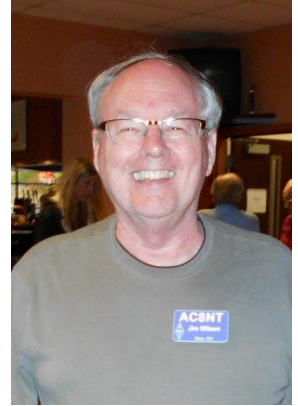


JOTA stations have been asked to avoid other operating activities taking place over the October 14-16 weekend, including the Worked All Germany contest-free zones. Four state QSO parties also take place over JOTA weekend — Illinois, Iowa, New York, and South Dakota.

Wilson also asked for the cooperation of contesters. “As you participate in these or other contests that weekend, please keep in mind that Scouts will be on the air at the same time,” Wilson advised competitors. “For most, this will be their first experience with Amateur Radio. Please be courteous and where possible provide some contest free space around their ongoing QSOs near the Scouting frequencies. After all, they are the next generation of ham operators — or not.”

## Antenna Special Interest Group

*Jim, AC8NT*



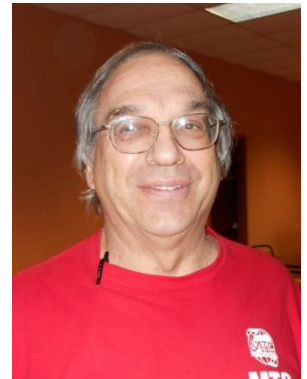
Polishing up the spiral dipole project based on an article by KN9B (<http://www.kn9b.us/spiral-dipole>). The antenna is now in the crawl space and working great. I can now work 40,20,15,10 meters without problems. This antenna costs about \$40 dollars to build and fits in a space 3 feet in diameter and 4 feet high. We built the first version at an antenna SIG meeting using the original plans. It involved a lot of hot glue and work. My version uses holes drilled in the spokes to hold the wire. It is a lot easier to build and adjust. I will be leaving the build jigs at the club site for anyone interested to use.

We also completed the design and build of an antenna for the Ubiquiti mesh access point. Recently the cost of these access point antennas has gone through the roof. Some costing over \$100. At Field Day several of us talked about building our own antennas. I have finished my version at a cost of about \$5 and it works fine. It is a 6 dbi collinear dipole design that can be made in about an hour. It took building a jig to bend the wire properly at the correct spacing, but with that complete, the antenna is very simple to build. This jig will also be left at the club site for others to use.



## CFARC Foxhunts

*Jim, N8PXW*



The Cuyahoga Falls Amateur Radio semi-monthly (1st and 3rd Wed) foxhunt will start at 6:00 PM in the month of Oct. That is, Oct 5 and 19. The starting point is at the Scout House in Silver Lake, Ohio. The mailing address is 2850 Church St, Stow, Ohio. The GPS coordinates are 41 09.0117 81 27.54714 . It is located on Church St. a block south of RT 59, Kent Rd. The talk-in freq. is 147.27, the club repeater.

The hunt freq is 147.525 simplex. Directions from the RT 8 freeway are as follows: From the South Exit at Rt 59 (to STOW) and follow the road 3 or 4 traffic lights, till you see a church on the South-East side of the road, and a "Silver Lake" sign on the North side. Turn right, and go South for about 1/2 block, the parking lot will be on your left, behind the church. It's harder from the North. Exit At 2nd St. That puts you in the wrong direction but go to (I think) a traffic light, turn left, go 1 block and it dead ends on a 1-way to your left on Front St. and RT 59. Then follow the previous directions to the Scout House.

Visitors and interested parties are welcome. Ride-alongs are possible on a limited basis. All are invited to the dinner afterwards (If you want to go, make contact on the hunt freq, just after the hunt.)

Hope you can make it.

# Police Baffled? Send for the Radio Amateurs !



*Jenny List*

The police force in Evanston, Illinois had a problem on their hands. A mystery transmitter was blocking legal use of radio devices, car key fobs, cellphones, and other transmitters in an area of their city, and since it was also blocking 911 calls they decided to investigate it. Their first call for help went to the FCC who weren't much use, telling them to talk to the manufacturers of the devices affected.

Eventually they approached the ARRL, the USA's national amateur radio organization, who sent along [Kermit Carlson, W9XA] to investigate. He fairly quickly identified the frequencies with the strongest interference and the likely spot from which it originated, and after some investigation it was traced to a recently replaced neon sign power supply. Surprisingly the supply was not replaced with a fault-free unit, its owner merely agreeing to turn it off should any further interference be reported.

The ARRL are highlighting this otherwise fairly unremarkable case to draw attention to the problem of devices appearing on the market with little or no pretence of electromagnetic compatibility compliance. In particular they are critical of the FCC's lacklustre enforcement response in cases like this one. It's a significant problem worldwide as huge numbers of very cheap switch-mode mains power supplies have replaced transformers in mains power applications, and in any center of population its effects can be readily seen with an HF radio in the form of a significantly raised RF noise floor. Though we have reported before on the FCC's investigation of the noise floor problem we'd be inclined to agree with the ARRL that it is effective enforcement of EMC regulations that is key to the solution.



City of Evanston police vehicle picture, [Inventorchris] (CC BY-NC 2.0) via Flickr.

Reprinted with permission of Jenny List. <http://hackaday.com/author/jennylist/>

Jenny List trained as an electronic engineer but spent twenty years in the publishing industry working on everything from computer games to dictionaries before breaking out and returning to her roots. She grew up around her parents' small farm and blacksmith business in rural England, so making (and breaking) things is in her blood. Countless projects have crossed her bench over the years, though these days you'll find her working with electronics and in particular radio, textiles for clothing and costume, decrepit classic cars, and real cider from first principles. When she's not writing for Hackaday she works on language corpus analysis software, designs and sells amateur radio kits, sits on the board of Oxford Hackspace, and is a freelance electronic design engineer and programmer.

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## Linux for Hams Special Interest Group

*Terry, KB8AMZ*



November 29, 2016 will be the last SIG for this year. I will bring one of the club's refurbished PC's with Linux installed. The SIG has been performing installs on Raspberry Pi's. If time permits, I may demonstrate a Linux application at the last 2016 SIG.

Hope you will come. If you have any questions pertaining to the SIG or topic matter please contact either Mike Ryan - KB8TUY or Terry Morris - KB8AMZ.

## ARRL Outgoing QSL Service to Raise Rates

*From the ARRL*



Although ARRL believes it's important to maintain the long-standing tradition of the ARRL Outgoing QSL Service as a membership benefit, increased administration costs will require an increase in rates, in order to keep the Service available and viable.

"The Service has been a member benefit for decades," an ARRL statement said. "Since its official formation in November 1976, tens of millions of QSL cards have been shipped from ARRL Headquarters to Amateur Radio QSL bureaus of other national societies worldwide. At one time, this benefit offered a safe, reliable, and inexpensive way to exchange QSL cards for a fraction of the cost of the postal service. What Amateurs saved in financial cost, however, was made up for in time; it could take months, or even years, to send and receive a QSL through the bureau."



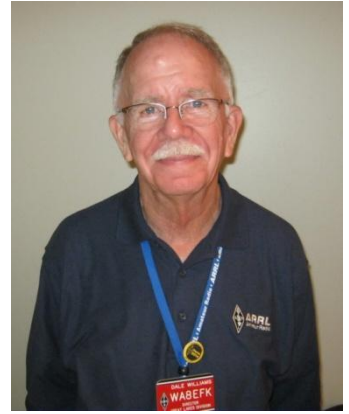
Effective November 1, the rate for 1 ounce of outgoing QSLs via the Service will increase to match the 1 ounce USPS international postage rate. As of September 2016, this rate is \$1.15 per ounce - about 10 cards. **An additional service fee of \$7 will be charged per individual transaction, to cover administrative costs.**

ARRL said QSLing is very different now, and, while postal services are generally more reliable than in years past, international shipping costs have risen significantly. "With the advent of the Internet and online QSL confirmation services such as ARRL's Logbook of The World, fewer and fewer paper cards are being exchanged," the ARRL statement observed.

Calling the Outgoing QSL Service "a significant tradition in the world of Amateur Radio," the League said it's committed to keeping that tradition and service alive for members who enjoy using it. "We are committed to ensuring our members will be able to send their QSL cards through the Service for decades to come," the ARRL statement concluded.

## Dales' Tales

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



WELL, FALL PLINKED in on us this week and I am reminded that all of my spring and summer antenna projects are still far from completion. Yeah, I know the best working antennas seem to be the ones installed temporarily during a winter ice storm, but this is just some maintenance work and now it means working in the wind with cold fingers. So much for good planning, I guess getting in some good operating time took precedence. Most certainly, the bands, both HF and VHF have not been showing the best propagation conditions, but the contacts are there to be made. I have heard a few operators comment that they wondered if their antennas were connected. Still, there have been some outstanding moments and we all hope they become more frequent as our weather grows colder. Some of my best contacts have been made when I thought the band was dead. With all the ups and downs in propagation, I have been following Carl Luetzelschwab K9LA's writings on the subject. You may want to look at his web pages <http://k9la.us>. Every article really piques my interest and of course, each reminds me that I need to get on with those antenna projects!

AS OF THIS WRITING, we ARRL Members across the country have provided our Senators in Washington with 58,898 letters supporting the Amateur Radio Parity Act. That includes 2228 letters from those of us in the Great Lakes Division. Thanks to you all for the outstanding job of supporting this legislation. The Senate will be in recess until after the election and our Washington Legislative Action Team will continue its effort to secure passage during and after the Senate's down-time. You can find the latest information at <http://www.arrl.org/amateur-radio-parity-act>.

THE SUMMER COMMUNITY SERVICE programs wind down a little at this time of year, but many ARES groups and clubs are active around Halloween to assist in insuring the safety of youngsters while they are out for Trick-or-Treat. Over the years of doing this, we've noticed the increase of cell phone equipped parents traveling with the kids, but still it is neat to hear the frequent "Thanks for being there" spoken to us while on patrol. It is a good service to be coordinated with your local police agency to insure a good flow of communications and well defined responsibilities.



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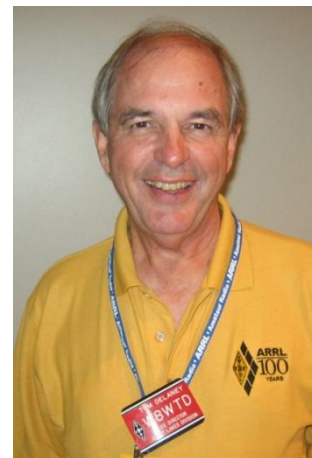
## *From The Great Lakes Division Vice Director*

**Tom, W8WTD**

**Vice Director, ARRL Great Lakes Division**

The big news right now is the Amateur Radio Parity Act, which Dale has written about. I'll just add my voice to his, and remind you to contact your Senators.

There were a number of hamfests that I attended this past month, and it was good to see and talk to many of you. I understand that some people actually read what we write here! Thanks for caring. By the way, as we're out and about, we are interested in any feedback on any aspect of amateur radio or for the ARRL specifically. It's important to know what you think. The forums have been a good place for us to get suggestions. So let us hear from you!



Hamfests are also great places to meet other people with similar interests. But you have to look for them. Sometimes we at the Division or Section level can make introductions, so stop by. If you're looking for someone else who shares your interest in a particular aspect of the hobby, maybe we can tell you who else is around that day that you can swap stories with, or increase your knowledge by learning about what they are doing in their county or area. Bargains are not the only things to look for at a hamfest.

There's still some time left to make contacts in National Parks on the Air. The interest level has been high, so let's finish out the year strong.

## *AT&T's New "AirGig" - Not Your Father's BPL*

*From the ARRL*

Recalling the earlier efforts of the FCC and telecommunications and utility interests to roll out "Broadband over Powerline" (BPL), the Amateur Radio community has been buzzing with questions about AT&T's just-announced "AirGig" BPL plan to make broadband available via apparently similar technology. ARRL's earlier anti-BPL campaign, and market forces, eventually led to the demise of the prior BPL initiative. ARRL Laboratory Manager Ed Hare, W1RFI, who spearheaded the earlier effort to quantify BPL's threat to Amateur Radio's HF spectrum and remains the resident expert on the subject, said this newest BPL incarnation should not pose an interference issue for radio amateurs.



"This technology uses millimeter-wave RF signals (30 GHz to 300 GHz) coupled onto the surface of power lines to transmit the signal along the line with relatively low losses," Hare explained. "After looking at this technology, it looks nothing like the type of HF and VHF BPL that caused us so many problems years ago. The sky is not falling."

Hare added that it is not likely that the AT&T technology will even use Amateur Radio bands, so there is little reason for concern even among those amateurs who use spectrum above 24 GHz.

According to AT&T's September 20 announcement, the company is "deep in the experimentation phase" of the developing technology, which it says would be "easier to deploy than fiber, can run over license-free spectrum, and can deliver ultra-fast wireless connectivity to any home or handheld wireless device." AT&T said its initial - and continuing - testing at AT&T outdoor facilities "has been positive," and initial field trials are set to begin in 2017.

Hare said the technique of putting RF signals onto the surface of conductors is not new. An article by Glenn Elmore, N6GN, and John Watrous, K6PZB, appeared in the May/June issue of QEX, describing the technique. In January 1953, the Proceedings of the IRE featured an article by C. E. Sharp and G. Goubau, "A UHF Surface-Wave Transmission Line," and the Radio Amateurs VHF Manual 11th edition introduced the technique to amateurs in 1968.

Hare said the League will keep an eye and ear out for interference problems, but he believes that the frequencies involved and the fact that these signals should not propagate far from the lines will pose little risk the Amateur Radio Service.

"So far, industry has not found a way to reliably put broadband signals on wires intended to carry power frequencies," he said. "The technical difficulties of trying to use wiring not designed to carry RF signals [and] connected to all sorts of noisy loads, other conductors and even splices that are major discontinuities at these frequencies will probably prove to be quite the technical challenge. ARRL is interested in seeing all technology succeed, but its vested interest is in the interference potential of new technologies. Fortunately, in this case, there is little likelihood of interference."

## Ohio ARES<sup>®</sup> Conference Videos

**Scott, N8SY**  
Ohio ARRL Section Manager

Did you miss the Ohio ARES<sup>®</sup> Conference this past weekend?? Boy, do I ever have a deal for you. I videoed all of the presentations and they are available on-line for you to view at your leisure.. Here's the link to get you started on viewing the fantastic conference that we had: <http://arrl-ohio.org/SEC/sec-conf-2016.html>

Now I gotta' tell ya' - Having all of the presentations on video to view at your leisure is something that we've never done before. It was a true experiment that I think worked out well, even the sound came out decent. If you agree with me, we'll continue to do this so that everyone can benefit from our conferences, and not just the ones who were lucky enough to be present.

So, with that said, connect to the presentations and then sit back with your popcorn and drink and have a great time!!



# Maine's First Woman Ham Turns 108

From the ARRL

## Retired Librarian Who Was Maine's First Woman Radio Amateur Turns 108

Mary Cousins, ex-W1GSC, who was the first woman in Maine to obtain an Amateur Radio license, celebrated her 108th birthday on September 20. Now a resident of a care facility in the coastal fishing village of Deer Isle, Cousins was treated to a party complete with a cake decorated with images of local newspaper articles from 1908, the year she was born. The confection also bore an image of her 1933 "Amateur First" radio license - issued to Mary Sibyl Wallace, her maiden name, by the old Federal Radio Commission, when Cousins was 24. The FCC came into being the following year. Cousins' old call sign has since been reissued at least once. Cousins said she operated Morse, although she does not remember the code anymore, and used to relay weather information in that mode.



Mary Cousins, ex-W1GSC, admires her 108th birthday cake on September 20. [Island Nursing Home and Care Center photo]

Four generations of her family attended the celebration. Cousins, a native of nearby Stonington, Maine, worked as the town's librarian, a school bus driver, and a telephone operator. She said she never stops learning new things.



© Form 1150

Mary Cousins' "Amateur First" class license, issued by the old Federal Radio Commission. Her call sign was on the reverse side.

Cousins told Bangor TV station WFVX that ham radio in the 1930s "was something that the girls did not do, and the boys were all doing it at the time, and I said, 'I can do it too.' And I did."

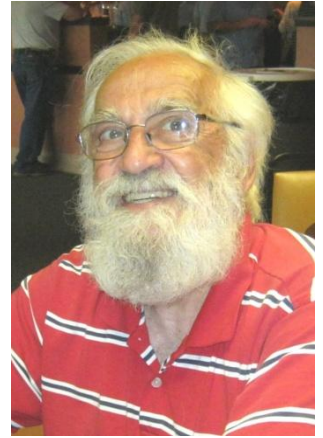
Her cake also bore images of Stonington as it looked in 1908, when Teddy Roosevelt was the US president. Enlivening the party were 108 balloons and live piano music. Cousins received and read cards from many well-wishers, including US Sen Susan Collins.

Her son John told WFVX, "When she decides she's going to do something, she's going to do it. I think 100 was going to be the goal. She wanted to reach 100. She did. And then she said, 'Well, might as well go for 105.' I think she's working on 110 now."





*Joe, W8KNO*



When you read this, the Cleveland Indians have won the Central Division of the American League and post season play is starting. The advantage of aging is that you can remember the events most interesting to you. I started playing baseball in the Cub Scouts, before Little League was created. I played on my grade school team during my 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> grades. During High School, I played American Legion ball. I worked after school and did not play High School ball. In the service, I played hardball while on the U.S.S. Toledo and softball for the U.S.S. Hammerberg.

However; the year that I remember most is 1951. I grew up outside New York City and they had three teams; the Brooklyn Dodgers, the New York Giants and the New York Yankees. The Yankees had won the American League the previous two years and were on their way to a third. In the National League, the Dodgers were well ahead and at one time in July they were 23 games ahead of the Giants. The Giants had a couple of winning streaks and on the last day of the season, they were tied. A three game playoff was scheduled. Each team won one game and it came down to the game number 3. I was a freshman in High School and when I got off the bus at the base of the mountain, the score was 4-2 Dodgers ahead. When I got home, my mother came running out of the house shouting that the Giants had won. I had to wait for the 6 o'clock news to see what had happened. Instant replay had not been invented and Memorex did not come along until 1958. The film of the game had to developed and then it could be shown on TV. The game was won on Bobby Thompson's "Shot heard around the World".

The Giants had the National league Rookie of the Year Willie Mays and the Yankees had the American Rookie of the Year Gil Mc Dougal and they also had another rookie Mickey Mantle.

The Mayes County Amateur Radio Club of Pryor, Oklahoma will host a special event from 2:00 p.m. October 21st until 7 p.m. October 23rd to celebrate Mickey Mantle's birthday and birthplace. Listen around 7.060, 7.250, 14.285 and 10 meters.

Although he grew up in Commerce, Okla. and was known as the "Commerce Comet, he was born in the small town of Spavinaw on October 20, 1931. His family moved to Commerce when Mickey was 4 years old.



Named by his baseball-loving father after Detroit Tigers catcher Mickey Cochrane, Mickey trained from a young age to be a switch-hitter. A New York Yankees scout saw him play while in high school, and Mantle subsequently signed on for two years and played in the minors while still in high school. He joined the Yankees at the age of 19 and wore #7.

Mickey played his first game for the Yankees in 1951, eventually replacing Joe DiMaggio in center field. During his 18-year career with the Yankees, the switch-hitting slugger hit 536 home runs and was voted the American League's Most Valuable Player three times (1956-57, 1962). In 1956, he won the American League triple crown with 52 home runs, 130 runs batted in and a .353 batting average. He retired 1960.

Mantle's last "unofficial" home run was in 1973 during the "Old Timers"

game with Whitey Ford pitching. Mantle hit the home run in the original Yankee Stadium with 46,000 spectators in attendance.

To receive a Commorative QSL, send a \$3.00 donation with your QSL card to: Jim Winn, Mayor - PO Box 196 - 117 Main St. - Spavinaw, OK 74366. No SASE is needed because of the special Mickey Mantle postmarks. I'll listen for you in the pile-ups,

## Ham Radio - The First Social Network

*Rick Nelson*



Amateur radio is the original social network, according to Doug Grant, call sign K1DG. Speaking yesterday at EDI CON, he referenced the famous Peter Steiner cartoon in The New Yorker captioned “On the Internet, nobody knows you’re a dog.” ([https://en.wikipedia.org/wiki/On\\_the\\_Internet,\\_nobody\\_knows\\_you%27re\\_a\\_dog](https://en.wikipedia.org/wiki/On_the_Internet,_nobody_knows_you%27re_a_dog)) Grant’s version is, “On 15 meters, nobody knows you’re a Doug.”



**Doug, K1DG**

Grant described ham radio as a hobby with many facets—including experimentation, awards programs, and international social interaction. It also a source of skilled technical personnel for the public and private sectors.

Perhaps most important, it serves as an effective communications service when all else fails. Grant noted that FEMA administrator Craig Fugate became concerned that emergency communications channels were overly dependent on the PSTN. Consequently, FEMA and the Amateur Radio Relay League (ARRL) in 2014 announced a memorandum of agreement (MOA) to enhance cooperation between the League and FEMA in the area of disaster communication.

At the time, Fugate said (<http://www.arrl.org/news/fema-and-arrl-sign-agreement-fema-administrator-calls-ham-radio-resilient>), “Radio is one of the most resilient communications technologies we have. When the power is out and telecommunications are down, the amateur radio community can serve as a vital resource in support of emergency responders and survivors during a disaster. This MOA will strengthen FEMA’s partnership with ARRL and build upon our work to expand emergency communications capabilities and the use of amateur radio in emergency management.”

Grant noted that in the early 20th century amateurs were banished to the useless wavelengths of 200 m and down. Experimentation proved that short waves were not so bad after all—they could carry messages across the ocean in daylight hours. Ham operators, he said, made the impossible work.

Many famous names grace the list of ham radio operators, he said, including Wozniak Packard, and Rohde. He emphasized that amateur radio remains relevant in the 21st century, with the number of licenses in the U.S. at over 700,000 growing. Ham radio has not been taken over by the Internet.

It’s easy to get started, he noted. You can build a radio from scratch from parts scavenged from an old TV set. And there are enough components in a compact fluorescent light bulb to build a transmitter. There are plenty of opportunities to experiment with hardware.

There is also opportunity to experiment with software, using, for example, the FlexRadio SDR technology, leveraging DSP. If you need a transmitter, you can write one.

In addition, he said, VHF and UHF moon-bounce communications ([https://en.wikipedia.org/wiki/Earth%E2%80%93Moon%E2%80%93Earth\\_communication](https://en.wikipedia.org/wiki/Earth%E2%80%93Moon%E2%80%93Earth_communication)) is accessible with a small investment. You can obtain open-source software (<http://physics.princeton.edu/pulsar/k1jt/>) to help recover weak digitally modulated signals (round trip path loss is on the order of 240 dB). And if the moon is too far for you, you might take advantage of more than 100 satellites, such as OSCAR, that amateurs have built—often on shoestring budgets. If ham operators were a country, Grant said, they would represent the world’s fifth largest space program. And amateurs aboard the ISS have conducted live communications with schools worldwide.

ARRL celebrated its centennial 2014, and its second century will be very different, Grant said, with more focus on digital communications and microwaves. Nevertheless, HF and VHF will still have a role to play—getting signals past trees and buildings, for example.

“You can play a role,” Grant said. If you are hiring engineers, you could consider screening prospects on the basis of whether they have ham licenses—that might be more significant than GPA. Are you supporting universities? Does your alma mater have a ham radio club?

He cited relevant work being done by students establishing a ground station at Virginia Tech. Also playing a role are collaborative nonprofits such as TAPR, AMSAT, and OpenHPSDR (with the PennyLane transmitter - <https://openhpsdr.org/penny.php>).

To get a license, you no longer need to learn Morse code, Grant said, although CW is fun. You do need to take written exams on theory and regulation. The theory should be easy for anyone attending EDI CON, he said, so all you need to do is memorize the regulations. The place to get started, he concluded, is ARRL.org.

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Rick became Executive Editor for EE in 2011. Previously he served on several publications, including EDN and Vision Systems Design, and has received awards for signed editorials from the American Society of Business Publication Editors. He began as a design engineer at General Electric and Litton Industries and earned a BSEE degree from Penn State.

<http://www.evaluationengineering.com/edi-con-speaker-touts-ham-radio-first-social-network> Evaluation Engineering

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## Charlie the Tuner's HF High-Lites

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



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

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

**COWS OVER THE WORLD (Update).** It's been reported that all of Tom's radio equipment has been stolen and he is currently making arrangements to return home. I will try to keep you up to date as information becomes available.

**5H, TANZANIA.** Chas, NK80/VE3ISD, will once again be active as 5H3DX from Zinga, Tanzania, between Oct 20<sup>th</sup> and Nov 12<sup>th</sup>. Activity will be from the pediatric hospital at Zinga. Holiday style. Power output will be the legal limit for Tanzania at 100w and the primary antenna should be a Hexbeam configured for 20-6 meters, including the WARC bands. Operations will be primarily CW. He states that he will use a simple wire antenna and his KX3 with a KXPA100 amp. QSL via EA7FTR, LoTW and eQSL.

**6V, SENEGAL (IOTA Op).** A team of Italian ops active as 6V1IS from Ngor and Gorée Islands (AF-045), Senegal, between Nov 6-16th. This is a Humanitarian DXpedition. Activity on various HF bands and modes. Operators and Team members mentioned are Leopoldo/ I8LWL (Organizer), Alfredo/IK7JWX (Team leader/QSL Manager), Ampelia/ IS0AGY, Christian/IS0BWM, Loredana/IS0FFR, Patrick/IS0FQK, Simon/IZ7ATN, Vincenzo/IZ8FRH, Enzo/IZ8LFI and Michele/IW7EGQ. Log will be available on ClubLog. The operation does have a FaceBook page at: <https://www.facebook.com/groups/1707060236221730>

**7P, LESOTHO** (Press Release, date August 18th). Pista, HA5AO, will operate as 7P8AO from Lesotho between Oct 15-29th. The primary purpose of the trip is to deliver humanitarian aid and support to an orphanage. At his own expense Pista is supplying clothing, shoes and school supplies to the children. This will be his third visit to Lesotho to work with the children. When not at the orphanage, Pista will be operating mainly CW, on 80-6 meters. Log search and OQRS will be on [www.ha5ao.com](http://www.ha5ao.com). Please QSL to HA5AO.

**7Y, ALGERIA (LH Ops).** Operators from the Algerian Amateur Radio Union (ARU) will be active from five lighthouses in the next coming months. They will be using special call signs whose suffixes form the word "LIGHTHOUSE" as follows: 7Y9LI from Cap Ivi, 7Y9GH from Cap Tenes, 7Y9TH from Ras Afia, 7Y9OU from Cap Fer Marsa and 7Y9SE from Cap Sigli. QSL for all call signs are via SM4VPZ. Also, an electronic certificates and plaque are available. Details on the rules and trophy can be read here: <http://www.qrz.com/db/7X5ARU> The following call signs and schedule of operations are as follows:

CALLSIGN	Dates	Lighthouse/Ref #	QTH/WW Loc.
7Y9TH	October 27-31st	Ras Afia Lighthouse/ALG-029	Jijel/JM26UT
7Y9OU	November 15-21st	Cap Fer Marsa Lighthouse/ALG-011	Skikda/JM37NC
7Y9SE	December 7-15th	Cap Sigil Lighthouse/ALG-016	Bejaia/JM26JV

For more details and updates, watch: <http://www.aru-dz.org>

**9N, NEPAL.** Operators Bogdan/SP2FUD, Janusz/SP9FIH and Rafal/SQ9CNN will once again be active 9N7FD, 9N7CC and 9N7WE, respectively, from Chengu Narayan, Nepal, during the second half of October. Activity is usually on 40-10 meters using CW, SSB and RTTY. QSL 9N7CC and 9N7WE via SP9FIH. QSL 9N7FD via SP2FUD. For more details and updates, watch: <http://9n.dxpedititions.org>

**BW, TAIWAN.** Koji, JL3RDC, will be active as BW/JL3RDC from Taipei during the CQWW DX SSB Contest (October 29-30th) as a Single-Op/All-Band entry. QSL via JL3RDC.

**H40 & H44, TEMOTU PROVINCE AND SOLOMON ISLANDS (Reminder).** Stan, LZ1GC, will be active from Temotu Province as H40GC and the Solomon Islands as H44GC between September 24th and October 21st. Stan will be joined by Emil, DL8JJ (LZ2EN), from Honiara, Guadalcanal Island (OC-047) as H44GC between September 24th and October 3rd. Activity will be on 160-6 meters, with a focus on the low bands, using CW, SSB and RTTY. Suggested frequencies are:

CW - 1822.5, 3502, 5371.5, 7024, 10116, 14010, 18070, 21015, 24895 and 28010 kHz [Listening 1-5 up]

SSB - 1850, 3790, 5403.5, 7164, 14170, 18135, 21265, 24940, 28470 kHz [Listening 5-15 up]

RTTY - 1838, 3585, 7038, 10138, 14088, 18098, 21088 and 28088 kHz [Listening 1-5 up]

6m - 50100 kHz

Stan will then travel to Lata, Nendo Island (OC-100), in the Temotu Province, and be active as H40GC between October 4-17th. He will return to operate again as H44GC from Guadalcanal Island (OC-047) between October 18-21st. QSL via his home call sign, direct, LoTW or ClubLog's OQRS (the preferred method). For more details and possible updates, see <http://www.c21gc.com>

**KH2, GUAM.** After his V63AJ from Yap Island (OC-012) [see OPDX.1247], Mike, DF8AN will be active as KH2/DF8AN from Guam Island (OC-026) between November 16-20th. Activity will be on various HF bands using CW, PSK and RTTY. QSL via DF8AN, direct or by the Bureau. No eQSL or LoTW.

**MD7, ISLE OF MAN.** Rich, M5RIC, will be active as MD7C from the Isle of Man (EU-116) during the CQWW DX SSB Contest (October 29-30th) as a Single- Op/All-Band entry. QSL via M0OXO.

**PJ2, CURACAO.** Operators Geoff/W0CG (PJ2DX), Ulrich/DL8OBQ, John/N4RV, Ton/PA1CC, Tom/VE3CX, Adam/W1ASB, Heiko/DK3DM, Fukuda/JJ1RJR, Rich/W3ACO and Ray/NM2O will be active from the Caribbean Contesting Consortium's (CCC) Signal Point contest station on Curacao Island (SA-099, WLOTA 0942) between October 20th and November 2nd. The team's main focus will be on the CQWW DX SBB Contest (October 29-30th) as a Multi/? entry using the call sign PJ2T. Outside the contest, operators will be signing PJ2/homecall or their own personal PJ2 call sign. QSL PJ2T via W3HKNK. QSL PJ2DX direct to W0CG. QSL all others via their home call signs.

**S9, SAO TOME.** A German team will be active as S9YY from Sao Tome (AF-023) between Oct 8-23rd. Ops mentioned are Peter/DL1RPL, Soeren/DL3RKS, Dieter/DL1AWD, Hans/DL1AOB, Rocco/DG5AA and Rich/DK8YY. Activity on CW, SSB and the Digital modes, on the HF bands and 2m EME. QSL via DH7WW, by the Bureau or direct (Ulrich Moeckel, Schwarzwinkel 13, 08304 Schoenheide, Germany).

**ZL7, CHATHAM ISLAND (Update).** Haru, JA1XGI, will be active as ZL7/W1XGI (not ZL7/JA1XGI as first announced) from Chatham Islands (OC-038) between November 24th and December 1st. Activity will probably be on 160-10 meters, including the 30/17/12m bands, using mainly CW with some RTTY, JT65 and PSK. Equipment is an IC-7300 into two different verticals. He also plans to be in the CQWW DX CW Contest (November 26-27th). QSL via JA1XGI, direct, by the Bureau or LoTW. For more details and updates watch: <http://island.geocities.jp/chathamholiday>

## IOTA NEWS

**OC-139.** Grant, VK5GR, will be active as VK5GR/P from **Kangaroo Island** between October 10-16th. Activity will be holiday style (family vacation) on 80-15 meters using mainly RTTY, PSK, MFSK and possibly other Digital mode and some SSB. If there is room, he may operate some 160m. A special QSL will be available. QSL via eQSL, QSL Bureau or LoTW or OQRS.

Here's a novel idea, get on the air and work some DX and let me know if you worked anything rare. Until next time GUD DX. 73

## Should U.S. Ham Tests be Given Abroad?

*Dan, KB6NU*



A couple of weeks ago, I received an e-mail from a reader who wanted my opinion about a thread on the HamRadioHelpGroup mailing list. The e-mail that started the discussion was a message from an American living in Italy who wanted to take the Technician Class exam. In her e-mail, she told of her troubles finding a test session, and then when she did find one, what she perceived as “irregularities” in the testing process. Reading the thread was a little disconcerting, and I blogged about this issue (<http://www.kb6nu.com/u-s-amateur-radio-license-exams-given-outside-u-s/>).

I understand why foreign national go to the trouble of taking the U.S. license exam. Some of them even buy my study guides. About a year ago, for example, I swapped some e-mail with a guy from Malaysia about why he purchased my study guide and why he wanted a U.S. license. He said that it was because a neighboring country offered reciprocal operating privileges to U.S. licensees, but not Malaysian licensees! He mentioned that he tested for the license in Thailand.

Basically, my Malaysian friend was using the U.S. licensing process to circumvent the Malaysian licensing process. Australians seem to do this, too. Apparently, according to one of the VKs who commented on the thread, getting a U.S. Tech license is easier than testing for an Australian Foundation license. So, some Australians get a U.S. Tech license first, then get the Australian government to issue them a VK Foundation license based on the reciprocal operating agreement between the U.S. and Australia.

Another reason that some outside the U.S. obtain U.S. amateur radio licenses is the challenge. That’s the reason Martin Butler, M0MRB/W9ICQ, of ICQPodcast fame, gave when I spoke to him about this recently.

Are these reasons "good enough" to continue this program of licensing non-U.S. citizens? My first reaction was that no, it's not good enough, and I questioned whether or not the ARRL VEC should sanction non-U.S. VEs and whether or not the FCC should even allow testing outside of the United States.

I didn't see the need for conducting these test sessions or the desirability (to the U.S.) of licensing foreign nationals. I reasoned that not only was there a greater possibility of test fraud, this program could lead to foreign authorities claiming that the U.S. was meddling in their affairs.

This post garnered a lot of comments. Several of them took me to task for voicing this opinion and were in favor keeping the current licensing program in place. There were a variety of reasons.

One of the reasons in favor of using the U.S. licensing process is that in many countries, amateur radio license exam sessions are not very frequent. Another is that they often are quite expensive. This creates an artificial barrier to getting an amateur radio license. Using the U.S. licensing system breaks through this barrier and allows many more to enjoy amateur radio.

Of course, for everything to be on the up and up, the foreign authorities would have to condone the use of U.S. license tests. Apparently, this is the case in Thailand and Australia. I don't know about Italy, but I'm guessing that the authorities there don't really care about Italians obtaining U.S. licenses.

Perhaps the best comment came from Thida, HS1ASC/KH6ASC. He noted that the tests in Thailand were administered very strictly, and says, "The U.S. may lose some callsigns, but what the U.S. and U.S. hams get from us is goodwill, very positive feeling. Everyone who gets U.S. license is so proud, and others look at them respectfully." Since Part 97.1(e) lists as one of the purposes of amateur radio, "Continuation and extension of the amateur's unique ability to enhance international goodwill," I'm now all in favor of offering U.S. ham tests abroad.

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When he's not challenging himself with new things, Dan falls back on something he knows pretty well--operating CW. You'll find him mainly on the 80m, 40m, and 30m bands. Dan is the author of the "No Nonsense" amateur radio license study guides, and blogs about amateur radio at [KB6NU.Com](http://KB6NU.Com), and you can contact him by e-mailing [cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com)

## Take a Break

**John, KD8MQ**  
Ohio ARRL Section ACC

Good news, 90% of you can skip this part of my column this month; I'm writing to the other 10%. You know who you are; the club officer who always gets elected for something; the Ham who has his (or her) finger into every club project, or program; who is always running from one project to the next, and volunteering for everything. If you aren't this Ham, then I bet you know him, or her. Chances are that you know a couple of them.



You justify all this frenzy by telling yourself that the club won't survive without you. You promise to slow down, but next time there's a job to be done, you're right there with your hand up. You are sure that the club won't run without you. But, have you considered that you might be doing a disservice to your club and its members? By doing so many things yourself, you may be robbing other members of the need to step up and take the reins. After all, why should they? They have you to do everything. You may be doing a disservice to yourself as well, as you pile more & more work onto yourself.

We call Amateur Radio fun, but, we find that the busier we get the less fun we're having. In extreme cases, we can get overloaded, and our performance begins to suffer.

So, what do we do? At first glance, the answer seems to be to just quit and walk away. I submit that the answer is not to quit, but rather step back a bit, and learn to just say NO!

But, you say, what will happen to the club? Trust me they will survive. And, so will you. Remember, it's ok to take a break. Maybe now is the time to think about mentoring some of your younger members to take the helm.

Thank you for indulging me as I do a different sort of column this month.

## *FCC Updates Notice on ARO CEPT Countries*

*From the ARRL*

The FCC has updated its Public Notice on Amateur Radio operation in European Conference of Postal and Telecommunications Administrations (CEPT) countries that have adopted certain recommendations regarding the US. The updated notice, in English, German, and French, includes some additional countries where operation is permitted. Licensees operating in CEPT countries must have a copy of the Public Notice, proof of US citizenship, and evidence of an FCC Amateur Radio license grant. These must be shown to "proper authorities" upon request.

More information about CEPT can be found at, <http://www.cept.org/>. The Public Notice can be found in PDF format at, [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2016/db0916/DA-16-1048A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2016/db0916/DA-16-1048A1.pdf)

Subject to regulations in force in the country visited, a US citizen holding an FCC General, Advanced, or Amateur Extra Class Amateur Radio license grant "is authorized to utilize temporarily an Amateur Station in a [CEPT] country that has implemented certain recommendations with respect to the United States," according to the notice.

Advanced or Amateur Extra class operators are granted CEPT Radio Amateur License privileges, in accordance with CEPT Recommendation T/R 61-01 (as amended). General class operators are granted CEPT Novice Radio Amateur License privileges, in accordance with ECC Recommendation (05)06 (as amended).

CEPT countries participating in CEPT Recommendation T/R 61-01 as of September 16, 2016, are Albania, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark (including Greenland, and the Faroe Islands), Estonia, Finland, France (including Corsica, Guadeloupe, French Guyana, Martinique, St Bartholomew, St Pierre and Miquelon, St Martin, Reunion and its Dependencies, Mayotte, French Antarctica, French Polynesia and Clipperton, New Caledonia, and Wallis and Futuna), Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, and the United Kingdom (including Great Britain, Northern Ireland, the Channel Islands, and the Isle of Man).

CEPT countries participating in ECC Recommendation (05)06 as of September 16, 2016 are Austria, Belgium, Belarus, Bosnia and Herzegovina, Croatia, Czech Republic, Denmark including Greenland, and the Faroe Islands), Finland, Germany, Hungary, Iceland, Liechtenstein, Lithuania, Luxembourg, Moldova, Netherlands, Poland, Portugal, Romania, Russian Federation, Slovak Republic, Slovenia, and Switzerland.

Information regarding countries participating in CEPT Recommendation T/R 61-01 and Recommendation (05)06 after September 16, 2016 is available from the European Communications Office (ECO).

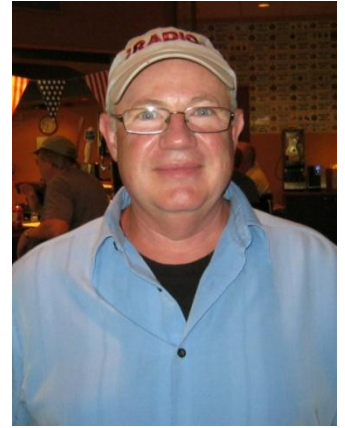
The Public Notice includes complete details. For more information, contact Scot Stone, FCC Wireless Telecommunications Bureau, (202) 418-0638, or via email at, [Scot.Stone@fcc.gov](mailto:Scot.Stone@fcc.gov).





## PCARS QRP In The Park

**Tom, WB8LCD**



Sunday, September 25, 2016 was the QRP/CW SIG's Fall QRP Field Event, which coincided with the North Georgia event. The Sprint ran from 4:00 – 6:00 PM (local), we set our event to start at 3:00 PM to give time for set up. Originally planned for Tinkers Creek State Park, we made a last minute move to Fred Fuller Park in Kent as the state park wanted us to obtain a “special use” permit. Seems to me the state parks are being over managed.

I arrived at the park just before 3 and was joined soon after by Andrew, KE8BWA. Andrew set up a Yaesu FT-857, running off a battery into a 20 meter

vertical. My set up was my KX3 running off the car battery into a low 40 meter inverted Vee. Terry, KB8AMZ – showed up later but did not set up a station.



Unfortunately for Andrew, 20 meters was not cooperative for QRP. I made one Q before the contest started with N4WIS – a special event station operating from the U.S.S. Wisconsin in Virginia Beach, VA. After the contest started I made 3 Q's, 2 in Vermont and 1 with a National Park On The Air station in MA (WR31). We wrapped up operations at about 5:30.



All in all, it was a great afternoon! Weather was beautiful, I had a chance to get to know Andrew and a chance to talk with Terry and Kobe. Not to mention I learned a few new tricks with the KX3. I plan to do it again next year and I hope a few more PCARS QRP'ers will join us.

**PCARS**  
**Join Now**  
Discover the FUN



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



# All Ohio ARES® Conference

Tom, WB8LCD



I attended the day long All-Ohio ARES® conference on Saturday the 24<sup>th</sup> of September. The conference was held at the Marion Technical College in Marion, OH. Although it's seemingly out in the middle of no-where, the college is a branch of Ohio State, and the facilities were outstanding! Even the town of Marion had just about every restaurant choice you could want. The building we were in was new and modern, and had all of the A/V necessary for the presentations. Even the chairs in the lecture hall were very comfortable.



Of course there were the obligatory displays of go-boxes, and even emergency communications vehicles in the parking lot. But, the best part of the day was devoted to the presentations on the agenda. Starting out was the basic introductions, including a look at the article in the October CQ Magazine talking about the ARES® activities in OH this summer (more on that later). Matt Curtin – KD8TTE had a short talk about the ARES® MAT (Mutual Assistance Team) and informed us about the requirements to participate. The idea is to have a group of ARES® team members, with proper credentials and educational requirements completed, at the ready to assist in larger events that would tax a local group by the time commitment it would require. By having members from other areas at the ready, they could be called upon to give the “local” volunteers a break when needed.



Next was a rundown on ARES® activities that were successful operations this summer, including the Toledo Air Show, the Cincinnati NAACP Convention, The Cleveland RNC Convention and the Akron Red Cross operations in conjunction with that. Toledo Air Show: I was impressed to hear that there were a total of 44 ARES® volunteers involved in the operation. I also heard them say that at the air show there were “security snipers” strategically deployed, just in case. Cincinnati NAACP Convention: while everything was peaceful, they were on “high alert” for the duration of the conference since both Pres. Obama and Candidate Hillary Clinton were in to make an appearance. In addition, it was just a week earlier that the Dallas Police Shootings had occurred, so everyone was on edge.

Cleveland RNC: again everyone was prepared for the worst, but, Excellent response from the Cleveland Police kept all under control. While the convention was running there was a shooting in Euclid, OH. A Ham at the EOC was able to reprogram one of the MARCS Radios to allow everyone there to listen to Euclid PD to keep informed of what was going on with that situation. To be eligible to participate in this operation, volunteers needed to have had completed the ICS 100, 200, 700, 701, 706, 800 and 802 courses. While originally scheduled as a 12 hour a day deployment, it was later made a 24/7 activation. Volunteers with the necessary credentials had to be rounded up quickly! Akron Red Cross: was on standby



during the whole week in case there was a need for their services. It was stressed that Red Cross has dropped it's invasive background checks for volunteers and they are still an organization worthy of our support.

After all of that there was a brief discussion of the Oct SET Exercise. Then lunch.

After lunch, we started with another presentation by Matt Curtin regarding HIPAA rules and understanding how they apply to our activities. While that could have been a real “snoozer” (especially right after lunch), Matt was able to make this an easy to understand and fun to listen to presentation! I would urge you to take any opportunity you get to listen to Matt talk about this subject.

Next was a presentation by FEMA on “Keeping your Family Safe”. You can get most of this information off the FEMA web site (ready.gov), but the main idea was that as volunteers, we still have an obligation to our families to make sure that they are safe and secure before we would take off on any volunteer deployment. Very useful information, especially on keeping in touch with family members when an event separates us.



There was a presentation by me (Tom – WB8LCD) on volunteer motivation. It was basically the PCARS story! All of our ham groups need to be welcoming organizations where new members/volunteers are brought in and immediately made to feel welcome and that they “belong” with the group. Ham Radio is a hobby, and most people get involved with a hobby because they think it might be fun! Well, the PCARS story is basically a story of hams having fun with their hobby! I showed several examples of hams having fun with our operating events and/or our building/educational projects! As I look back on everything that PCARS has done, and continues to do, I'm proud and honored to be a member of the club and get the opportunity to share our experience as a success story!

Finally, I want to end with this: ARES<sup>®</sup> is run kind of as a “bottom up” organization, so it's different in every county, based on the county's needs. Every county has different relationships with county governments and EMA's that have developed through the years. In Portage County, the Communications Unit/RACES is the primary interface with the local EMA. I would urge you to become a member of the Communications Unit. It will give you an opportunity to be involved with the local EMA and a very dedicated and educated group of EmComm hams! I would also urge you to become a member of and involved in ARES<sup>®</sup>. Many of the training requirements are the same. ARES<sup>®</sup> presents some additional opportunities (such as the All-Ohio ARES<sup>®</sup> Conference) to see and be a part of what is going on in other sections of the state. It's a Win/Win to be involved with either or both of the opportunities we have in Portage County. You will be helping us prove the value of Amateur Radio as set forth in its purpose in part 97! You will also be providing a valuable public service – even if we never get called for an actual “event”



## Swap-N-Shop

**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]

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**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]

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**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 **Lafayette HA-410 10-Meter AM transceiver** w/AC cord, mobile hand mic., working. Plus two spare radios for parts - \$200 **Swan 500CX & 117XC** Supply **DD-103** Freq Disp-\$550 **Drake 2-B & 2AQ** with Freq Disp-\$550 **Yaesu FT-101EX** Loaded, with YO-100 Scope, Digital VFO - \$800 **Drake TR-7** loaded with extras - \$900

**Contact: Jeff, WA8SAJ by phone at 440-951-6406** [1/2/17]

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**FOR SALE: Tri-Ex Model LM-354** Tower \$400 - **Cushcraft Model 520** 20 Meter 5 El Beam \$100 - **Hy-Gain Model T-2X** Rotator \$250 - **All the above together \$600**

**Kachina 505DSP** In great shape, original DSP radio, great for digital work \$400. **Kenwood SP-430** Speaker \$40  
**Gwinstek Function Generator** \$25 **Gwinstek Digital Multimeter** \$25 **Albia Power Supply** Dual Variable +15 &-15 \$25  
**EZ Oscilloscope** 60MHz Dual Channel \$25 **Nye Viking, MBI-001** Tuner \$100 **Sencore TF151**, Transistor tester \$25  
**Shure model PE515**, Microphone \$25 **Shure model 444D**, Microphone \$25 **AEA model QT-1**, Antenna tuner \$25  
**HEIL HTH**, Handie talkie headset for Kenwood HT's \$25

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

**Contact: Allan, AB8AA at [AB8AA@portcars.org](mailto:AB8AA@portcars.org)** [10/02/16]

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**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](mailto:K8IV@portcars.org)** [10/02/16]

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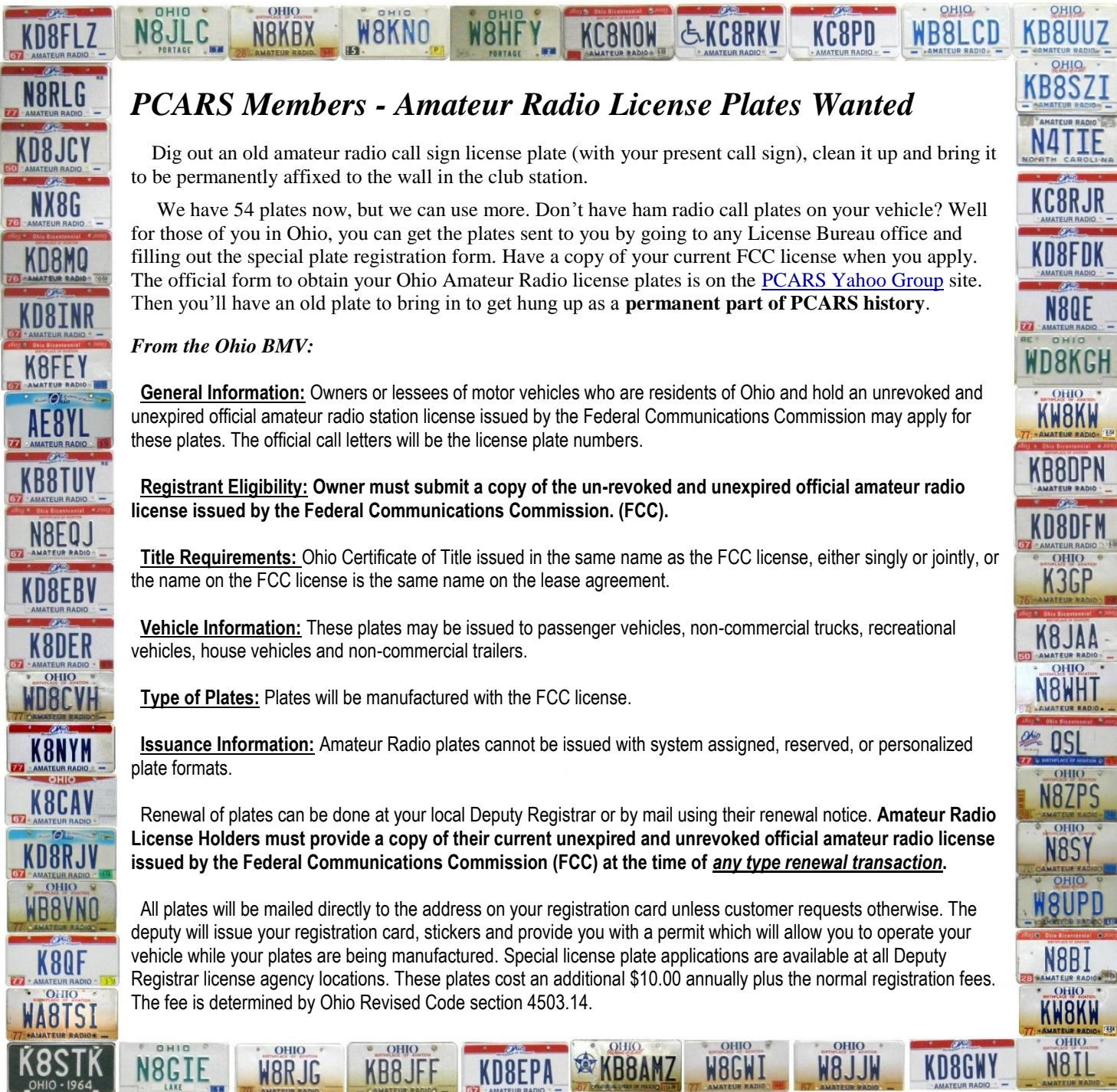
**FOR SALE: Rig Expert AA-30 - HF Antenna Analyzer** - Like new in box. No scratches or dings. Bought the 230-Zoom model, so I don't need this one now. Freq range: 0.1-30 MHz, LCD Screen, CD and 2 batteries. Cost new \$225, will sell for \$175.

**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 \$160.

**Contact: Tom, KB8UZZ by e-mail at [KB8UZZ@portcars.org](mailto:KB8UZZ@portcars.org)** [12/02/16]

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## PCARS Members - Amateur Radio License Plates Wanted

Dig out an old amateur radio call sign license plate (with your present call sign), clean it up and bring it to be permanently affixed to the wall in the club station.

We have 54 plates now, but we can use more. Don't have ham radio call plates on your vehicle? Well for those of you in Ohio, you can get the plates sent to you by going to any License Bureau office and filling out the special plate registration form. Have a copy of your current FCC license when you apply. The official form to obtain your Ohio Amateur Radio license plates is on the [PCARS Yahoo Group](#) site. Then you'll have an old plate to bring in to get hung up as a **permanent part of PCARS history**.

### From the Ohio BMV:

**General Information:** Owners or lessees of motor vehicles who are residents of Ohio and hold an unrevoked and unexpired official amateur radio station license issued by the Federal Communications Commission may apply for these plates. The official call letters will be the license plate numbers.

**Registrant Eligibility:** Owner must submit a copy of the un-revoked and unexpired official amateur radio license issued by the Federal Communications Commission. (FCC).

**Title Requirements:** Ohio Certificate of Title issued in the same name as the FCC license, either singly or jointly, or the name on the FCC license is the same name on the lease agreement.

**Vehicle Information:** These plates may be issued to passenger vehicles, non-commercial trucks, recreational vehicles, house vehicles and non-commercial trailers.

**Type of Plates:** Plates will be manufactured with the FCC license.

**Issuance Information:** Amateur Radio plates cannot be issued with system assigned, reserved, or personalized plate formats.

Renewal of plates can be done at your local Deputy Registrar or by mail using their renewal notice. **Amateur Radio License Holders must provide a copy of their current unexpired and unrevoked official amateur radio license issued by the Federal Communications Commission (FCC) at the time of any type renewal transaction.**

All plates will be mailed directly to the address on your registration card unless customer requests otherwise. The deputy will issue your registration card, stickers and provide you with a permit which will allow you to operate your vehicle while your plates are being manufactured. Special license plate applications are available at all Deputy Registrar license agency locations. These plates cost an additional \$10.00 annually plus the normal registration fees. The fee is determined by Ohio Revised Code section 4503.14.

## PCARS Yahoo Group

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

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

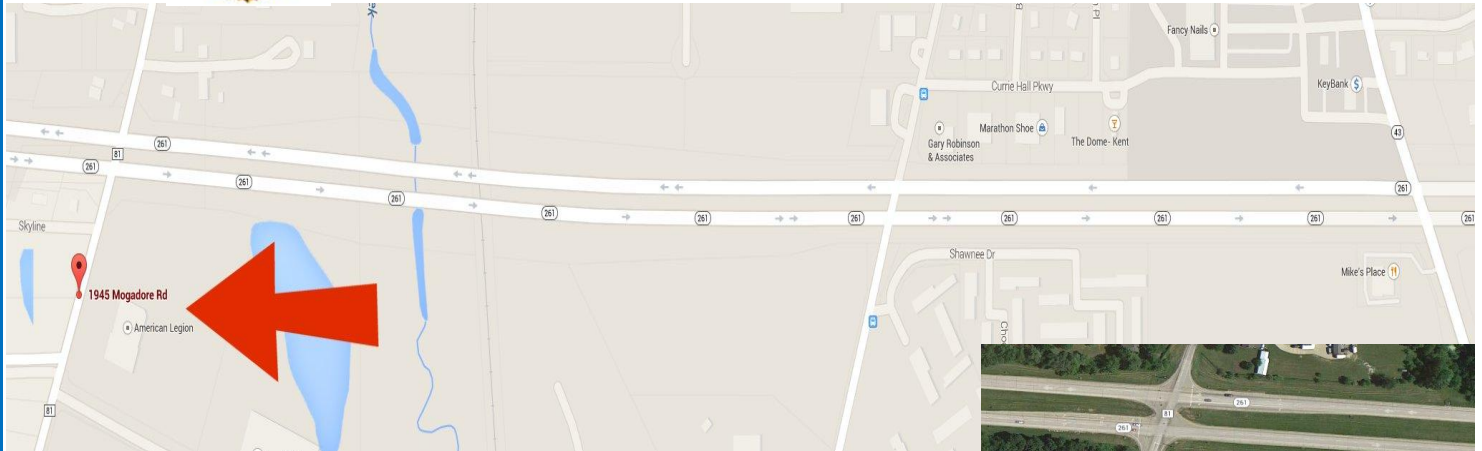


# PCARS Meetings

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



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



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



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

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

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

# Photos from the PCARS Meeting





# PCARS

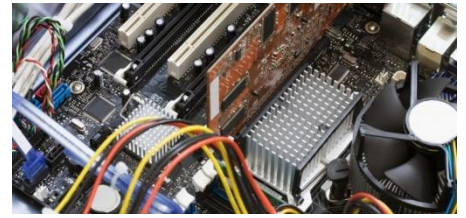
## Sept 12, 2016



## Important Dates in October

*Here are some important dates in October:*

**Monday 3<sup>rd</sup> - Techies Day** - Geeks rejoice! Throw off the shackles, and embrace your hardware-obsessed, motherboard-craving, graphics card upgrading, wire-soldering, phone fixing, laptop repairing, router rebooting inner self for Techie's Day!



**Tuesday 4<sup>th</sup> - Taco Day.** Tacos are the Mexican equivalent of a sandwich. Instead of bread, a hard or soft tortilla is wrapped or folded around a spicy filling.

It is not known exactly when taco day originated, but tacos themselves have been around for a long time. They were first referenced by that name at the end of the 19th century, but the conquistador Cortez mentioned a meal prepared with tortillas as far back as 1520! Those would have been the soft wheat or corn tortillas. Hard taco shells are a much more recent innovation.



Taco day is usually celebrated with taco parties for friends. There are many possible combinations. Start with a base filling of beef, chicken, fish, seafood, beans, or vegetables, and then mix and match your toppings. Try your favourite combination of sour cream, guacamole, lettuce, chopped tomato, onion, salsa, and cheese for a tasty treat that's great for sharing.

**Sunday 9<sup>th</sup> - Beer and Pizza Day.** Nuff said

**Friday 21<sup>st</sup> - Back To The Future Day.** Have you been avidly awaiting the arrival of your flying car? The Hoverboard? Instant dry clothing? If so, you might be a fan of the blockbuster film franchise "Back to the Future". It was a hugely popular film with a great story line, that introduced us to characters and a version of the world that captured the imagination of the world.



History of Back To The Future Day: Back to the Future was a sensation, and there isn't a person alive who has seen this movie that hasn't avidly awaited the arrival of our hoverboards and time machines. Back to Future Day celebrates the day that the DeLorean arrived in the future, October 21, 2015, at 4:29pm.



The movie recounts the adventures of Marty McFly, having used Doc Brown's specially modified DeLorean to travel back into his past. He was just escaping the Lybians that were after the plutonium that Doc Brown used to power his time travel experiment, but it led him on a series of crazy events in the distant past.

Why is this date of importance then? Because in the sequel he traveled to the future to solve some issues with his children, and Back to the Future Day takes place on the date he arrived according to the movie.

How to Celebrate Back To The Future Day: Well, the simplest way to celebrate Back to the Future Day is to hit the ground running with a movie marathon. Relive the moments that captured your imagination the first time around, and laugh along with Marty McFly and Doc Brown as they try to save their future by changing their past. Whatever you do, don't miss celebrating Back to the Future Day!

## Shack Shot - W5OV

After 18 months in Ohio, PCARS member - Bob, W5OV has managed to put a station on the air with an Icom IC-7300 and an experimental loop antenna from Bushcomm in Australia.



Bob reports that “While not like being at K3LR, it is nice to be able to make a few QSOs again”.

During the 3rd session of the CW OPEN took place, he managed to make a few QSOs, including DX from Italy and Puerto Rico. “Amazing for this little antenna - about 2’ square. Tuning is very touchy, and it has a fairly narrow bandwidth, but it works!”



## 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, N8WB, W8ASA, W8EOT, WB8LCD, KB8EMD, KC8PD, KD8FLZ, W8KNO, N8PXW, KB8AMZ, WA8EFK, W8WTD, N8SY, W8PT, KB6NU, KD8MQ, W5OV, Casey Elliott, Steven Dufresne, Jenny List, Rick Nelson, The ARRL, Amateur Radio Newline, DX Engineering, Urbana Daily Citizen, eHam.net and the World Wide Web.**

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

### Special Services Club Certificate

Every 2 years we have to send in information to the ARRL to keep our Special Services status up to date. At last month’s PCARS meeting, our Ohio Section Manager Scott, N8SY presented the new Special Services Certificate to PCARS.

The ARRL changed the design and it looks really great. I updated our framed certificate and the next time you’re in the club site - check it out.



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

Meetings: 2<sup>nd</sup> Monday of each month at 7:00 PM

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


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

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

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



~ 2016 Officers ~		2016 PCARS Appointments & Committees	
President - Rick Kruis - K8CAV Vice President - Jim Wilson - AC8NT Treasurer - Amy Leggiero - KD8SKL 3 Year Trustee - Jim Aylward - KC8PD 2 Year Trustee - Chuck Patellis - W8PT 1 Year Trustee - James Andrews - KD8VT Past President - Tom Sly - WB8LCD	ARRL Awards - DXCC WAS, VUCC, WAC	W8KNO	Joe Wehner
	ARRL Awards - WAS	KB8UUZ	Tom Parkinson
	Club Site Manager/Liaison	KC8PD	Jim Aylward
	Contest Coordinator	W8PT	Chuck Patellis
	EchoLink	K8SRR	Steve Randlett
	Field Day Chairman	W8PT	Chuck Patellis
	FYAO Chairman	W8PT	Chuck Patellis
	Historian	KB8SZI	Peggy Parkinson
	K8BF Callsign Trustee	K8FEY	Bob Hewett
	K8BF QSL Manager	K8FEY	Bob Hewett
	Membership Chairman	KC8PD	Jim Aylward
	Net Control Manager	WB8LCD	Tom Sly
	Net Night - Club Manager	WB8LCD	Tom Sly
	~ Meetings & Net ~	Newsletter Editor	KB8UUZ
2 <sup>nd</sup> Monday of each month, 7pm Thursday night Club Net at 8 pm on 146.895	OSPOTA Chairman	KB8UUZ	Tom Parkinson
	Public Information Officer	WB8LCD	Tom Sly
	Secretary	K8MSH	Mark Haverstock
	Tech, Gen & Extra Class Manager	AC8NT	Jim Wilson
	Volunteer Examiner Liaison	N8RLG	Robert Gurney
	Webmaster	KD8MQ	John Myers



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

**PCARS Active Volunteer Examiner Team Members**

PCARS Incorporated  
Nov. 1, 2005

First Meeting  
Nov. 14, 2005



ARRL Affiliated  
April 20, 2006



Special Service Club  
March 22, 2010

The **RADIOGRAM** is the official *Award Winning* (ARRL Ohio Section Newsletter First Place Winner for 2012 AND 2013. Second Place in the Great Lakes Division for 2013. Second Place ARRL Ohio Section Newsletter for 2014. Third Place Winner in the Ohio Section 2015. Second Place Winner in the Ohio Section for 2016.) newsletter of the **Portage County Amateur Radio Service, Inc. (PCARS)** – copyright © 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: [kb8uuz@portcars.org](mailto:kb8uuz@portcars.org)



NLC

