



The **RADIOGRAM**

When All Else Fails ~ Amateur Radio Works

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

June 2016 - Volume 11 Number 6

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FUN at Dayton 2016



Field Day 2016

PCARS

ARRL Field Day
 June 25-26, 2016
 Get out...
 get **ON THE AIR**...
 and leave nothing but footprints!
**Freedom Township
 Community Park**



PCARS K8BF

The Club that puts the FUN in Ham Radio!

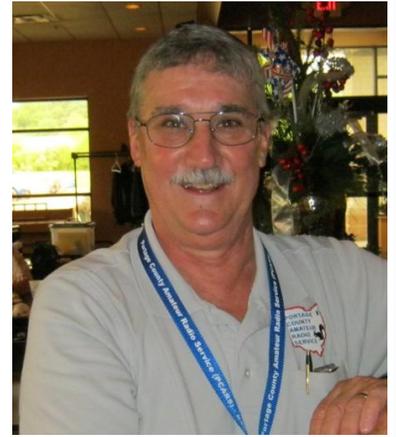


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From the President

Rick, K8CAV
PCARS President



The end of May is almost here and it was a great month for PCARS and its members. On Saturday May 7th we held our annual **Antenna Day**, the “dress rehearsal” for Field Day at our new venue at the Freedom Township Community Park and it worked out very well! The only real glitch that occurred was a detour necessary because of two road closures on bridges over the Ohio Turnpike and we’ll make sure detour directions are sent out again before Field Day. We’ll also try get someone assigned on the site during Field Day to monitor the K8IV repeater to talk folks in if necessary. The Freedom Township Park is as close to a perfect Field Day venue as you can get. The park road is oriented north-south and is a bit over 1,000 ft. long, which lets us space out our stations within the 1,000 ft. circle specified in the rules. It also allows all the antennas to be in line, oriented north-south and between that and the station spacing interference should be minimized. In addition to the Freedom Township Trustees allowing us to use the park and pavilion, they also allowed us to use a building in the park for our food service team to cook in.



So we’re all set for Field Day as far as our location, and Chuck and his team are going great guns to put the rest of it together but we’re missing that key element, PCARS members volunteering to operate, log, and help out with things in general. With

some of the interference issues we’ve had in the past minimized or eliminated we stand a good chance of breaking our club record but we need your help to do it! Just drop an e-mail to the station captain, support team leader, or to Chuck W8PT if you can help out and we’ll get you on the schedule.

And speaking of new venues, Tom, WB8LCD picked a new spot for the PCARS group photo at Dayton Hamvention this year. Alas, a granddaughter’s birthday party kept me from attending this year but hopefully those of you that did make it also got in on the photo! For those of you who didn’t, I’m sure you’ll appreciate the irony of Tom’s choice spot when you see the photo hi.

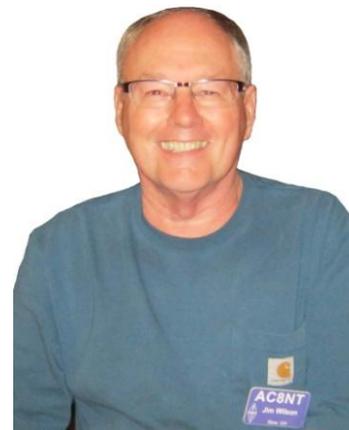
Summer is here and PCARS is filling the schedule with a lot of fun things to do. In addition to Field Day in June, we have our club picnic in July and the Cruise-In in August. It’s also a great time to look at some of those outdoor ham radio projects you want to get done at your QTH and rustle up some PCARS volunteers to help you out. If you’re looking for help with a project, PCARS has a Yahoo group where you can post a message which goes out to all PCARS members who have signed up for the Yahoo group and is a great place to ask for help. And don’t forget to keep an eye out for announcements from our Vice President Jim, AC8NT for upcoming activities and speakers at our monthly meetings.

I want to put in yet another plug for the PCARS club site. Over the years as an Amateur Radio operator, I've been a member of a number of different clubs in northeast Ohio and I can tell you without question that it is rare indeed for an amateur radio club to have a permanent location to set up a radio station or stations, have a place to teach classes, and a place to socialize with fellow members. The PCARS facility is roughly a thousand square foot with lab space, operating space, storage space, and social space. A number of our club members have put in countless hours to take that space and turn it into a first class club site with everything needed to accommodate a LOT of different interests in Amateur Radio. The club site is open every Tuesday evening for special interest group meetings, and one Thursday for net night at the club site.

Chuck, W8PT is in the process of writing a survey that will be sent to each member asking what their interests in amateur radio are so that we can look at establishing uses for the radio room and club site for interests beside just contesting. I think this is a great idea and I want to encourage all of you to complete this survey when Chuck sends it out so we can work on making PCARS a club you want to participate in.

From the Vice President

Jim, AC8NT
PCARS Vice President



First, I want to thank everyone for a great antenna day. All stations went up and tested fine. Freedom Township Community Park is a great location that, I think, will get us better scores and allow us to have more fun. The lack of interference will be a big plus for all stations. With Tom, WB8LCD in charge of weather, we should have a dry warm Field Day.

This month I have built a lot of antennas. I have just completed a \$10 replacement for the Ubiquity antenna that now costs over \$100. It was made using 12 gauge solid wire, some PVC pipe and a “N” connector. It is a collinear, three element design that in preliminary tests works just fine. We will be testing it more in June and if it meets expectations, we can have a build party for those interested in mesh networking using the Ubiquity bullet without the high price of their antenna. I have also been making some multiband “End Fed” designs. I now have a 40 though 6 meter design that I will use with my new QRP rig. I will be building a small tuner to make the match better. If you are interested in “End Fed” designs a great article can be found at http://www.earchi.org/92011endfedfiles/Endfed6_40.pdf. These designs can be a great addition to your emergency “Go Bag”.

Speaking of antennas, at the last board meeting and at our last Antenna SIG meeting, we discussed creating a group of club members to assist other hams in getting their antennas either installed or working better. Tony, WA8AR and I will be working on getting this group up and working. If you are interested, let either Tony or me know.

We are planning to replace the computers used for the Echo Link station and our club house internet firewall. This will allow us to move our website to the club enlarging our capabilities and reducing our costs. We will be making a presentation at the June board meeting on this replacement.

Last but not least, I attended the NASA open house at Glenn Research in Cleveland. I had a very good discussion with their communications group on NASA's plan to replace communications equipment on the ISS with new SDR based systems. This will allow more reliable communications and the use other methods of carrier support including optical links. I am working on getting one of their people to make a presentation to the club. A large percentage of the members of this NASA team are very active hams. It was a lot of fun trading experiences in ham radio with these excellent engineers.

Remember, field day is coming up. Let's get all the stations manned and prepare to have a great weekend.

Schedule of Events

On the calendar for upcoming meetings and activities are:

- **June 4 - VE Testing at Club Site 10 am - Walk-Ins Welcome**
- **June 11-12 - NASA 75th Anniversary open house at NASA Plumbrook**
- **June 13 - PCARS Meeting - 7 pm - Kent American Legion Post 496 - Software Defined Radios**
- **June 25-26 - FIELD DAY at the Freedom Township Community Park**
- **June 25 - VE Testing at the PCARS Field Day Site - 4 pm - walk-ins welcome**
- **July 11 - PCARS Meeting - 7 pm - Kent American Legion Post 496**
- **July - PCARS Picnic - Date to be determined**
- **August - PCARS 7th Annual Amateur Radio Cruise-In - Date to be determined**

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**



PCARS is on YouTube

That's right - PCARS is now on YouTube. So, what does that mean? Hey, we have a new place to put all kinds of videos that are about PCARS for the world to see.

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



Happy Birthday PCARS Members

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

KD8DQT Jeffrey Moore	KD8EPF Rena Martin-Wehner
W8SV Howard Evans	KB8VJO Gary Overfield
W8CDL Coletta Tomasik	WD8DAU Dan Trout
WB8OVQ Bob Warner	KE8CLN Edward Garcia
KD8UXF Joseph Mumper	KD8LIR Jennifer Sly
KD8SIZ John Miles III	KD8WCK Richard DeMattia
AB8AA Allan Avnet	

Editor's Note: Last month I missed getting **Frank, W8EZZ** on the birthday list - so if you see him this month make sure you say he does not look a month older than he was in May.... *Happy belated Birthday Frank !*

Youth DX Adventure Raffle

Tom, WB8LCD



The Youth DX Adventure is having their trip this summer to SABA Island (PJ6) on August 2 – 9, 2016. <http://www.qsl.net/n6jrl/>

PCARS has been a supporter of this program. They had a booth set up at the Dayton Hamvention®.



At the June PCARS meeting I will have raffle tickets for the Alinco DX-SR8 HF transceiver that they are raffling as a fund raiser. The tickets are \$5 each, or 5 for \$20. See me at the meeting, or contact me directly.

Contest Calendar

June 2016	
10-10 Int. Open Season PSK Contest	0001Z, Jun 4 to 2359Z, Jun 5
ARRL June VHF Contest	1800Z, Jun 11 to 0300Z, Jun 13
Kid's Day Contest	1800Z-2359Z, Jun 18
ARRL Field Day	1800Z, Jun 25 to 2100Z, Jun 26

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



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



PCARS VE Test Sessions

Robert, N8RLG
PCARS VE Team Liaison



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

June 4th - August 6th - October 1st - December 3rd

Also: June 25th at Field Day 4 pm

What to Bring to the Testing Session

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



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



DX Engineering - New Catalog - PCARS

Tom, KB8UUZ



DX Engineering publishes a catalog twice a year and the latest one just came out.

As most of you know, a number of PCARS members work for DX Engineering in Tallmadge.



Amateur Radio Products Spring/Summer 2016

FREE Standard Shipping on Most Orders Over \$99

Keeping with an un-official trend, a Black Squirrel has been placed on the cover of the catalog which is a tie-in with PCARS.

So, can you find the Black Squirrel?

(answer is on page 48).

PS - The operator with the black shirt and headphones is PCARS member Mark, W8BBQ.



DXENGINEERING.COM 800-777-0703
The Industry's Most Powerful Website | World-Class Products Shipped Worldwide

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



Field Day will be here before you know it and although we put a lot of emphasis on the fun aspects of Field Day (particularly including the food at the PCARS outing) the event has its serious side, too.

Field Day has its roots in emergency communications. It was a practical way to provide all hams with an organized event that would encourage them to literally get out in the field and operate from there, just as they might have to if a disaster struck. Could you put a portable station on the air and keep it running for twenty-four hours? That was the challenge.

There would need to be some planning and organizing to avoid haphazard setups. Just what equipment would you need? Would it be suitable for portable operations in an outdoor, and possibly inclement, setting? How could you quickly erect appropriate, though temporary, antennas? Could you provide adequate power to keep your station on the air? Would you be better off with a team putting the station on the air or by operating solo?

By adding a contest component the ARRL also focused on both the station's effectiveness as well as the operator's skills. It was one thing to set up a station in the field, but would it be able to be heard by other hams on the air? Plus, did you have the ability to operate under the pressure of a contest in unfamiliar surroundings and maybe even overnight?

Remember that even starting with the Technician license hams are trained to make sure that they have the capability to help during an emergency. New hams are taught that one of the best ways to ensure that they are prepared is to get their gear out at least once a year and put a portable station on the air. Sound a bit like Field Day?

No matter where you are on the weekend of June 25-26th take the opportunity to get on the air as a Field Day participant. If you can't make it to a club Field Day, why not set up in some place like your backyard or garage? Check out that gear that you haven't used in a while. Make sure that you remember how to operate it and that things haven't been broken or misplaced and that you backup power supply is functional. It will be worth the effort.

If you have the chance to get out to a Field Day like PCARS holds, go for it! Have some ham radio fun with a bunch of your amateur radio best friends. You can develop and improve your emcomm skills while you are at it.

Upcoming ARES[®] of Portage County public service events and the point of contact for the event:

- 12 June, **Champ Racing Great Western Reserve Triathlon**, Mike, KD8FLZ
- 16 June, **Marlene Watt 5k Race**, Mike, KD8FLZ
- 16 July, **Headwaters Adventure Race**, Jim, KC8PD
- 10 Sept. **Mantua Potato Stomp**, Jim, KC8PD

POW Canteen Radios

Dan Maloney

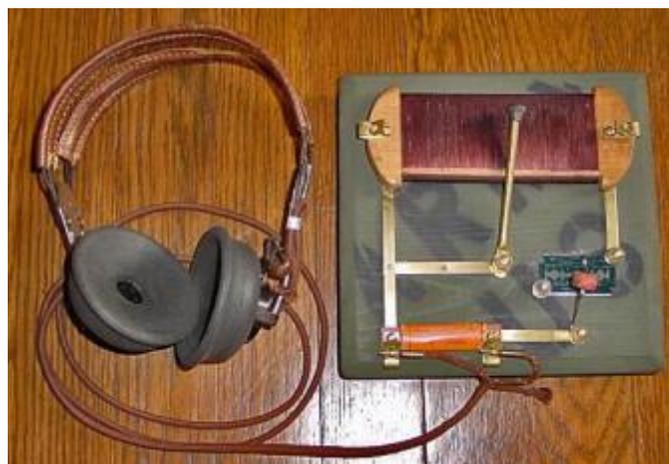


Of all the horrors visited upon a warrior, being captured by the enemy might count as the worst. With death in combat, the suffering is over, but with internment in a POW camp, untold agonies may await. Tales of torture, starvation, enslavement and indoctrination attend the history of every nation's prison camps to some degree, even in the recent past with the supposedly civilizing influence of the Hague and Geneva Conventions.

But even the most humanely treated POWs universally suffer from one thing: lack of information. To not know how the war is progressing in your absence is a form of torture in itself, and POWs do whatever they can to get information. Starting in World War II, imprisoned soldiers and sailors familiar with the new field of electronics began using whatever materials they could scrounge and the abundance of time available to them to hack together solutions to the fundamental question, "How goes the war?" This is the story of the life-saving radios some POWs managed to hack together under seemingly impossible conditions.

No Atheists in a Foxhole

Many POW radios are extensions of foxhole radios, a common pastime of soldiers in WWII. A resourceful soldier living in the field could likely have scrounged or looted a complete radio, or at least could have rounded up the parts to make a decent regenerative receiver for news and entertainment in the field. But the local oscillator of even such a modest receiver could be detected by the enemy, so crystal radios were preferred. With nothing but a tuned circuit and rectifier cobbled from a safety-pin and a razor blade, crystal foxhole radios were undetectable and could be used to tune in commercial broadcasts and military transmissions.



A replica foxhole crystal set. Photo credit: J.G. Jackson

Foxhole radios would be easy to replicate in the POW camps, and to some degree might operate better than they would in the field. POWs often used the long runs of barbed wire in the camp fences as antennas, and the waste produced by the camp led to ample opportunity to scrounge parts.

With that in mind, many of the POW hackers looked for ways to improve their foxhole radios. The most obvious improvement was adding a capacitor to the coil to create a proper LC circuit, rather than depending on the stray capacitance of the antenna. Scoring a variable capacitor to tune the radio was an even bigger coup.

the latrines. Resistors were pieces of string impregnated with burnt cinnamon bark. Bare wire was insulated by rubbing flour nicked from the mess into palm oil and caking it onto the wire. A chromic acid wet cell was concocted of potassium dichromate “donated” by the camp pharmacy and zinc trouser fly buttons. When that proved insufficient to power the radio, Wells built a chemical cell that both rectified the camp’s AC supply and dropped the voltage to a usable level.

The only components Wells couldn’t conjure out of thin air were the vacuum tube and the headset. Wells’ detailed oral history of the radio doesn’t say much about where the tube came from, but it does record that the headset was smuggled into the camp. Given enough time, the resourceful Col. Wells no doubt could have manufactured a headset; indeed, a Vietnam POW named Richard Lucas built the headset for his foxhole radio using a core of nails wrapped with wax-insulated wire in a bamboo resonator with a tin can lid for a diaphragm. He reported that it worked well enough to hear several stations, but that the headset would have worked better with a magnet to bias the coil.

As impressive as these hacks are, more amazing still is the fact that all of it was done from memory. These POWs came into camp with nothing but their dog tags and the clothes on their backs, and sometimes not even the latter. There were no reference books or cheat sheets. The circuits these men built under impossible conditions, often with only the rawest materials, were committed to memory, probably from days and nights of experiments in the pre-war years. Their hobby paid off in a big way and allowed them to hack their way through a more difficult time than any of us can likely imagine.

From the HACKADAY web site: <http://hackaday.com/> Dan Maloney: Contributor

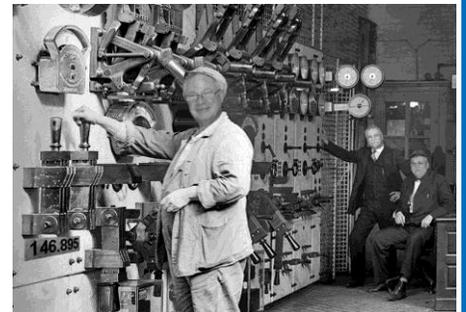
Dan has been a tinkerer since the days when Radio Shack still issued an annual paper catalog. Scientist by training but developer by necessity, Dan left his Ph.D. program with a Master’s in biology when he realized that automating his experiments and data capture was far more interesting than the ribosomal whooziewhatsis he was supposed to be studying. His day job now is to keep the R&D pipeline filled at a Major Pharmaceutical Company by automating experiments and data capture. What goes around comes around.

The remainder of Dan’s time is spent homesteading and trying to pry enough productivity out of 10 acres of New England glacial till and forest to sustain his family. While not remotely close to it yet, his goal is to free himself from the systems of support and build regenerative systems that require as few inputs as possible, which tweaks his hacker instincts as he searches for ways to automate his homestead as much as possible.

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 - 4th Thursday is NET NIGHT at the Club Site !!



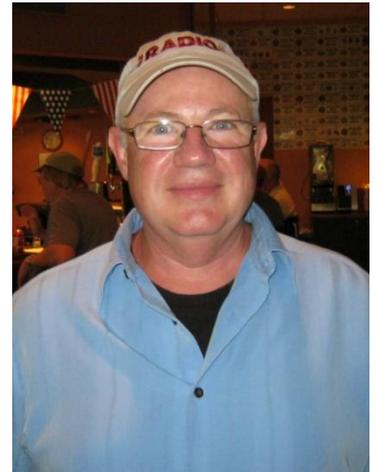
June	
2	WB2DFC
9	K8IV
16	WB8LCD
23	KD8SKL
30	K8CAV

July	
7	KC8PD
14	N8QE
21	WB8LCD
28	NR8W

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

Dayton Hamvention® 2016

Tom, WB8LCD



Hamvention® 2016 has come and gone. It was another spectacular exposition of the state of the art of Ham Radio! No, PCARS was not the “Hamvention® Club of the Year”. However, PCARS played it's part and was a big part of Hamvention®!



Prior to Hamvention®, the QRP Amateur Radio Club International had their “**Four Days In May**”. FDIM started out with a day-long seminar on Thursday. It was a packed seminar. There were many interesting speakers, most notably, PCARS newest “Honorary Member” Dr. Paul Darlington, M0XPD. All together there were approximately 7 different sessions on varied topics of interest to QRP operators.

Friday morning was the opening of the official Hamvention. On the way in, the first thing that Chuck, W8PT and I did was pay our dues to the Dayton Amateur Radio Association. I know that many other PCARS members are also members of DARA, so, in that way we are supporting (individually) the club that sponsors the Hamvention each year. There's nothing wrong with belonging to, and supporting multiple amateur radio clubs!



Once inside, one of the first booths we came upon was the Dave Kalter Memorial Youth DX Adventure booth. It was good to see both Don, W6JRL and Jim, AB8YK. Club Treasurer, Amy, KD8SKL, presented them with a \$500 donation from PCARS. Youth DX Adventure is an outstanding program to get young hams out in the DX world and give them a taste of DXpedition style operating. At breakfast the first morning, Chuck and I had breakfast (by accident) with a young lady who will be one of the Ops from SABA Island this August. (Sorry, I did not get her call) Her mother was with her, and had just passed her Tech class license (Ruth, the YL was an Extra) so that she could accompany her daughter on the trip. They were with a couple other young guys from the same club in the Atlanta, GA area who were both extremely excited about ham radio! There are young folks coming up behind, and they are excited about the hobby and I'm sure they will be the best influence on their friends to get involved.

Once in the ARRL Booth, Scott, N8YS – presented PCARS with a commendation from the Ohio Section for our 10 years of service to our community and to Amateur Radio. The plaque was also presented to the club members as a group at the Saturday morning group photo, and will hopefully be presented again at the next PCARS meeting. A very nice award to the good work that all PCARS members have done over the past 10 years. But, there's more! In the display of Field Day, there was a photo collage of pictures – and many of them were from the 2015 PCARS Field Day outing. Fantastic!





Scott also commented that he's using the PCARS tag line “**Big Fun**” as the theme, or idea, that he wants to use with the Ohio Section – Ham Radio is a FUN Hobby!

Walking around Hamvention, you couldn't miss “antenna hair girl”, because there was always a group around her wanting their picture taken with her. Yeah, everyone wanted their picture taken with Antenna Hair Girl!



Now, some people might believe there are other things happening behind the scenes, but one of the hi-lites of Hamvention for me, is meeting Dave, WB2DFC in the parking lot for the annual check in to the HF Pack net! After the net (and associated beverages) it's always time for the PCARS group Dayton photo. I know there are always some not able to be in the picture, but, whether they are in the photo, walking around the show, or working a booth, PCARS has a strong contingency at Hamvention every year!

If you live anywhere in OHIO, you owe it to yourself to attend Hamvention! One of the biggest and longest running Fests in the World, Dayton is an experience you **can not miss!** Many hams go to great expense and aggravating travel just to attend. From OHIO it's easy, you really need to have the experience! Some years it's the new equipment, some years it's the old equipment, and then again, like this year, sometimes it's the camaraderie of our fellow hams that hits me the most. Whatever, it's always a rewarding visit!

See you there in 2017!

PCARS at Hamvention® 2016

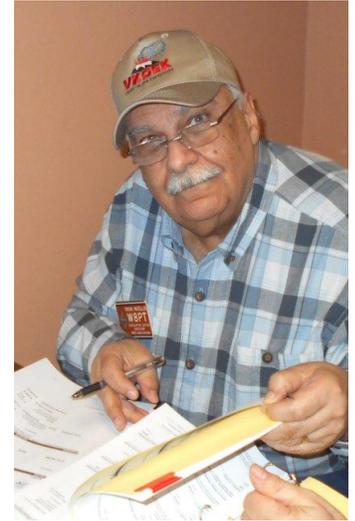


Field Day Update

Chuck, W8PT

As you know, our Big Fun outing in the 2016 ARRL Field Day is just around the corner (June 25/26). One thing that we need to mention is that we will again be using meal tickets. The Saturday evening meal will be free to all members. And as in the past, the breakfast will cost \$1.00 for all who partake. If you are planning to bring a guest for the Saturday evening meal, it will cost \$5.00, as it has in the past.

Just to remind everyone, the reason for the tickets is so that our Food Service team will have a fairly accurate count so that they do not buy too little or too much. You will all understand when we say that we certainly do not want to waste money. We HAMS, after all, are a cheap bunch.



We plan to have tickets available at the June monthly meeting, so come prepared to get the tickets you need. You do not want to miss out on the beef brisket on Saturday.

As far as the rest of the Field Day plans are concerned, so far so good. We should have a great time. And I am looking to Tom, WB8LCD, to do his thing regarding the WX. So say the magic words and do the dance. We're all counting on you Tom.

There has been some road construction going on near our Field Day site at the Freedom Township Community Park.

We will find ways to get all of you to our Field Day venue even if we have to get a chopper to airlift our equipment just as the DXpeditions do. Don't laugh, I'm sure that someone in our club can say, "*Hey, I know a guy.....*".

All kidding aside, I'm sure that Ohio's DOT is simply trying to keep the bridges over the turnpike in good condition. We will keep you all informed so that none of you who are planning to attend PCARS Field Day will get lost.

TRAVELING TO PCARS FIELD DAY

State Route 700 has been **CLOSED** at the I-80 (Turnpike) bridge since May 2nd and will require a detour for everyone traveling to our Field Day site at the Freedom Township Community Park for Field Day except for those traveling from north of the turnpike overpass on Route 700.

Following are detour directions and a map to get to the Freedom Township Park which is located at the corner of State Route 700 and Streeter Rd.

DIRECTIONS

Coming from the SOUTH (Ravenna area) on State Route 88:

1. Route 88 NORTH to Route 303.
2. RIGHT on Route 303 east to Route 88 north (½ mile)
3. LEFT (north) on Route 88 then immediate LEFT (north) on Nichols Rd.
4. NORTH on Nichols Rd. to Streeter Rd.
5. LEFT (west) on Streeter Rd., cross Route 700 to Park Entrance on Streeter Rd.

Coming from the NORTH (Hiram) area: No detour necessary

1. Route 700 SOUTH to Streeter Rd.
2. RIGHT (west) on Streeter Rd. to park entrance

Coming from NORTH (Mantua area) on State Route 44:

1. Route 44 SOUTH to Route 303.
2. LEFT (east) on Route 303 to State Route 88
1. LEFT (north) Route 88 then immediate LEFT (north) on Nichols Rd.
2. NORTH on Nichols Rd. to Streeter Rd.
3. LEFT (west) on Streeter Rd., cross Route 700 to Park Entrance on Streeter Rd.

Coming from the NORTH (Garrettsville area) on Route 88:

1. Route 88 SOUTH to Anderson Rd. just north of I-80.
2. RIGHT (west) on Anderson Rd. to Nichols Rd.
3. RIGHT (north) on Nichols Rd. to Streeter Rd.
4. LEFT (west) on Streeter Rd., cross Route 700 to park entrance.
- 5.

Alternate Route 1:

1. Route 88 SOUTH to Nichols Rd. just north of Rt. 303
2. SHARP RIGHT (north) on Nichols Rd. to Streeter Rd.
3. LEFT (west) on Streeter Rd., cross Route 700 to park entrance.

Coming from WEST (Streetsboro area) on Route 303:

1. Route 303 EAST to State Route 88
2. LEFT (north) Route 88 then immediate LEFT (north) on Nichols Rd.
3. NORTH on Nichols Rd. to Streeter Rd.
4. LEFT (west) on Streeter Rd., Cross Route 700 to Park Entrance on Streeter Rd.

Coming from EAST (Windham) area on Route 303:

1. Route 303 WEST to Route 88
2. RIGHT (north) on Rt. 88 then immediate LEFT (north) on Nichols Rd.
3. Nichols Rd. NORTH to Streeter Rd.
4. LEFT (west) on Streeter Rd. Cross Route 700 to park entrance.



Field Day Flex Station

Rick, K8CAV
FLEX Station Captain



The moment you've all been waiting for is here! The roster for FLEX Station operators and loggers is shown below and I know everyone's excited to be a part of the FLEX station during Field Day this year.

FLEX Station Operator/Logger Roster

	Name/Call	OP/Logger?	Mode
.1400 - 1500			
.1500 - 1600			
.1600 - 1700			

Wait what? There are no names, what's going on? Well sad to say as of the writing of this article for the June newsletter I've received not one volunteer for any position at the FLEX station for Field Day. On the bright side of things that means that every time slot during Field Day is open for you to have a great time hauling in Q's for PCARS Field Day.

As I mentioned in last month's Newsletter the FLEX station can be operated on just about every Field Day HF band and in almost all modes. (See the May issue of the Radiogram for details about FLEX) so whatever your operating interest we can probably accommodate you. By letting me know now what time, what band, and what mode you want to operate on we can put you first in line to operate. Drop me a line at K8CAV@portcars.org as soon as you can so we can get you on the schedule!

Field Day CW Station

George, K3GP
CW Station Captain



Field day is coming fast and the CW position is looking for operators. Please contact me at K3GP@portcars.org if you would like to hone your CW skills and at the same time boost the K8BF score by TWO points per contact.

All CW skill levels welcome. Most CW sending and all logging is done by keyboard.

This year, the CW position will be housed in a nice DRY enclosed trailer. Come and join this DIT-zy group!



Don, N4KC



Smart Answers to Dumb Questions About Amateur Radio

You may as well accept the fact that eventually people will figure out that you are a licensed Amateur Radio operator. No matter how hard you try to hide it, they will sooner or later catch you. It may be the HT you monitor in your cubicle at work, the Ham Radio license plate on your old beater, the ninety-foot skyhook in the backyard, or the “Know Code” tee shirt you wear everywhere you go...except maybe to church. Regardless how they come to the conclusion, they will break your cover and deduce that you are, in reality, a real, live Ham nut.

And when they do, they will ask you questions. They will likely do so for one of four reasons:

- 1 – They are just being polite and don’t really care at all what your answers might be.
- 2 – Now that they have found you out, they are convinced that your station is the reason the picture on their TV freezes when they try to watch “Dancing with the Stars.”
- 3 – They want to sell you something, like vitamin supplements, plastic-ware, makeup, or timeshares, and now they have an excuse to talk with you.
- 4 – They actually have an interest in the hobby and want to learn more about it.

One thing you can count on, though. Many of the questions will be—at least to you—very basic and, frankly, dumb. Never assume your new friend knows enough about our hobby to even ask a cogent question. Don’t roll your eyes and let out a big sigh! Instead take the stance that the person is asking that dumb question because he or she actually wants to know the answer. Seize the opportunity to give a smart response and you may just be able to evangelize a bit about our great hobby.

To assist you in this effort, I am going to list below some of the really goofy questions folks have asked me through the years. Then I will give some of my own suggested answers. You can likely come up with your own better responses. But remember, don’t get too technical. Make your answers short and to the point so they can ask more if they are truly interested. Don’t lie or exaggerate. And try not to get wild-eyed and foam at the mouth in your eagerness to share with a potential new Ham your immense enthusiasm for the hobby.

So, here are the questions and possible answers:

Question #1: “How far can you talk on that thing?”

Ah, the “how far” question! Careful. Regardless your answer, this often leads to question #2 below so be prepared for that follow-up. Don’t worry, either, about whether the questioner is referring to the 2-meter HT on your belt or the five-element beam watching over the neighborhood from your backyard. The question is hypothetical.

You can be flip and say, “As far as I want to.” You certainly don’t want to break into a detailed explanation of ionospheric refraction or sporadic-E VHF propagation. I usually go for the “impress ‘em” answers, though.

“To the other side of the planet,” I proclaim. Hey, with Echolink or similar technology you can even use that HT to talk far beyond just the local repeater. Maybe even the other side of the planet. Technically it is true.

If their eyes don't go blank and they don't erupt into a gigantic yawn, I trudge on with, "I've talked with other Hams who were operating from an island in the middle of the Indian Ocean, almost exactly on the other side of the world from where you and I are standing right now."

Even if you haven't quite accomplished that feat yet, you can confidently make the same point by proclaiming, "Some Hams talk with other guys operating from the other side of the planet..."

If the person has not begun inspecting his car keys or picking lint from his sweater while he thinks of a way to courteously get away from me, I go even farther.

"Many Amateurs bounce their signals off the moon, off the Northern Lights, or off the tails of comets. We have Amateur Radio satellites orbiting over our heads right now and you can even talk with the astronauts in the International Space Station."

"Really?"

You got him! There is the first sign of a spark of interest. Hopefully you can set the hook and reel him in. But don't be surprised if he asks the next dumb question:

Question #2: "But what can you do with that radio of yours that I can't do with my smart phone?"

Or tablet or laptop or two tin cans and a string? Yep, it's the dreaded "smart phone texting Facebook Pinterest social media flavor of the day" question. "I don't need a license or a radio or a big antenna to talk to people. I got me an Avocado SPF-7 with GPS, a mega-pixel mini-movie-screen, 30 watts of hi-fi stereo audio and a built-in bottle opener and belt-hole puncher right here on my hip."

"Well, you certainly can talk on that bad boy. But Amateur Radio is far more than just talking to people. It's communicating with others of a like mind, using a station that you put together yourself, using a wide array of technology, and doing so in such a way that you will often be surprised and fulfilled."

Blank look? Move on and talk about something else. Or tell him or her bye bye. Still seems to be paying attention, though? Move on to the next part of the answer.

"You can also buy fish at the market so why do so many people purchase a boat, fishing tackle and beer and head out onto the lake? Golf? Just walk over and drop the ball into the hole. No need to whack at it a bunch of times with a club. See, you do these things because there is a challenge and a fulfilling reward if you try and succeed."

Maybe it is at this point that you get the squinty-face look and the person responds with something like, "Okay, but it still seems like a lot of trouble just to be able to talk to somebody."

So you shake your head sagely, put your forefinger to your chin, and issue a dare.

"Maybe so, but I'd like for you to try something for me. Take that smart phone and dial an international area code and random number. First, let's see if you can even get an answer. If, by some miracle you do, and if that person just happens to speak your language, engage him or her in a half-hour conversation. What is the likelihood that this random call will net you somebody that not only is willing to chat with you and knows your language but that he or she immediately has some very strong common ground with you? I mean besides also being an owner of a smart phone. These sorts of communications happen all day every day on the Amateur Radio bands. With a contact on the radio, you automatically have something very big and exciting in common. You

are both Amateur Radio operators, members of the same fraternity. And whether or not either of you can explain the magic of that, you know it and you feel it.”

If the questioner doesn't get that point, you are probably wasting your time.

Question #3: “Is Ham sort of like...what?...that radio Burt Reynolds and Sally Field used in that trucker movie? CB? That was it, right?”

Citizens Band had its day and you may as well admit it. Millions who would never have picked up a microphone jumped aboard CB over the years. Many still do. Do not make the mistake of instantly condemning the “Chicken Band,” all who have ever yakked on it, or the whole notion of people being able to “work skip” without a license. You might be surprised how many of the folks you admire and talk with regularly on the Ham bands actually began with a “handle” and an 11-meter radio.

“CB is one way many people first realize that they have an interest in a radio hobby,” you might answer. “But they want to learn and do far more than what that particular service offers. Some of our most avid Hams started out with a CB radio but moved beyond the low power, limited coverage, crowded frequencies, and lack of choices.”

Question #4: “You guys still use that Morse code, too, don't you? And I heard you have to know how to send it to get a license to be a Ham.”

Depending on how you feel about CW, you may feel inclined to preach the gospel of “you ain't a real Ham unless you know Morse!” But trust me, now is not the time to launch into that sermon. Temper your answer. You can convert the person to the paths of righteousness later on if you see that as your mission. The fact that this question even came up confirms that this particular person sees the code as a roadblock. First help him get past that for right now.

“Well, no! It is no longer required at all. Hasn't been for years. You don't need to know the code to do most of the fun things in our hobby either.” Pause for a breath. Let that sink in. Then do a low-key sales pitch. “I should tell you, though, that since the requirement went away, more and more Hams have started to learn and use Morse code, by choice and not because they have to. They see it as a fun thing to do. But that is totally up to you. Our hobby has lots of facets and options and learning and using Morse code is just one of them.”

Mentioning “facets and options” may well key dumb question number five.

Question #5: “Still seems like a lot of trouble just to talk to other Ham types. Is there other stuff a Ham license would let me do?”

Okay, that isn't a dumb question at all. If I'm going to get interested in any kind of pastime I want to know what it involves.

“Absolutely!” you can chime in without fear of contradiction. “Not only is Amateur Radio just about the perfect hobby because you can do it regardless of age, gender, or physical or technical ability, but it offers such a wide area of possibilities.”

You can talk about your own interests here or find out what the questioner likes to do and hone your pitch. Don't forget activities like contesting, kit building, DXing, tying radios and computers together for SDR, digital modes and more, working satellites, weather spotting, DIY/”maker,” public service, RVing, amateur television, hiking and activating mountains and islands, drones and other radio-controlled devices, experimenting with

antennas, propagation, battery/solar power and other alternative energy sources...well, the list is lengthy. -- Practically endless, in my opinion.

While many Hams simply enjoy talking with other like-minded folks, there is plenty more to do with the hobby. And regardless of what other interests a person might have, there is a pretty good chance it marries well with Amateur Radio, enhancing your enjoyment of all of them.

Question #6: "It's expensive, right? All that radio stuff and antennas?"

"Not necessarily. Like most hobbies, you can spend as much as you want to, but you can also get great satisfaction with a modest station."

Invite the person to price a bass boat, trailer, motor, tackle box full of lures, a place to keep the boat, and all the other necessities to get involved seriously in fishing. Or check the cost of a decent set of golf clubs, club membership, greens and cart fees, lessons, and all the other things you need to become a golfer.

If pressed, you can honestly say that you can get on the air with a pretty good station for less than a thousand dollars. A thousand dollars! That is a lot of money!

Yeah, about four trips to WalMart for my family. Far less than that boat or golf club membership. And you have a station that will stand you in good stead the rest of your life. Plus, if you have someone who can help you find and evaluate used gear, you can get in even cheaper.

Question #7: "Oh, speaking of antennas, I doubt my homeowners' association would ever allow me to put up a tower. How would I ever be able to get on the air?"

Wow! These questions are not only getting less and less dumb but also more and more difficult to answer. But answer you must. You now have your questioner asking about the right things.

"That is an issue for many Amateurs these days. There is even legislation pending in Congress right now that will make it easier for Hams to get HOAs to allow a reasonable antenna system. But there are plenty of ways to get on the air without having to put up an elaborate antenna or tall tower that will cause your neighbors throw rocks at you. There are many books and articles on the subject, too. Rest assured, Hams are pretty good at finding ways to pursue their hobby regardless the restrictions or impediments."

Now, if you have done your job of answering the dumb questions without getting frighteningly animated or veering off subject, you may get the least-dumb question of all.

Question #8: "How do I get started? How can I learn what I need to know to pass the test?"

Bingo! You should be a salesman! Or politician! I hope you have a good reply ready for this strong "buying signal."

But first, here is the wrong answer: "Don't just learn the answers to the questions on the test. Learn all there is to know about radio and electronics before you even think about taking the exam." Wrong, wrong, wrong! A Ham license is a license to learn. Encourage those interested to go ahead and study for the test but assure them they do not need to qualify for a degree in electronic engineering before actually taking it. If their experience is typical, they will start learning while getting ready for the licensing test and they will not stop until the day they go SK.

Many people—including those with a technical background or a real interest in the technical side of our hobby—are still a bit leery of learning enough to pass the exam. They shouldn't be. And neither should you give them any reason to doubt their ability to pass it. Encourage them to get the ticket. They'll have the rest of their lives to learn all there is to know.

“Our Amateur Radio club meets every third Thursday at the library, starting at 7 PM. You'd be welcomed by a friendly bunch of folks and we have licensing classes starting next week. You can also visit the American Radio Relay League's web site. That's our hobby's national organization and their site can answer about any question you can think of.”

If the questioner's response is, “Hey, you have done a pretty good job answering my questions,” then take pride in knowing you may have recruited yourself a new Ham.

Remember, too, what one of my school teachers used to say. “Mr. Keith, you will never pass my class unless you stop reading that Ham Radio magazine while I am lecturing.” Whoops. He did say that, but he also said, “The only dumb question is the one that is never asked.” I suspect we all asked even dumber questions than those above before we started out in the hobby. I know I did.

Thank goodness several very helpful Hams took the time and showed the patience to answer them for me. The result is not only a hobby that has given me endless enjoyment and gratification over the years, prepared me for a 45-year career in media and communications, but also led to many people approaching me with some of those same questions.

In many cases, I was able to answer them and those folks went on to become part of the greatest hobby on earth.

Reprinted with permission. Don Keith, N4KC is an active Ham and a best-selling author with more than thirty books in print. He writes on a number of subjects including World War II history, military thrillers, submarines, sports, Amateur Radio and more. His novel Firing Point will soon be a major motion picture titled Hunter Killer. His web sites are <http://www.n4kc.com/> www.donkeith.com .



Yearlong Event

National Parks on the Air

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

National Parks ON THE AIR 2016

Get on the Air!

The poster features a scenic view of a national park with a prominent rock formation (Bison Butte) and an American flag flying in the foreground. The text is overlaid on a dark green background.

Miscellaneous

Check out this video on YouTube: <https://youtu.be/GNr2wlm6odQ> **Old to new ham shacks - 100 years** Chuck, W8PT

Important Days in June:

3 - Doughnut Day - The history of the donut isn't clearly known, but what is known is that their iconic look started making an appearance in the United States in the mid-1800's.

14 - Flag Day - It's time to rally round... Whether it's a huge Stars and Stripes flapping on the porch, or just a lapel pin, find a way to mark a unique day in a unique nation.



WWFF Program – Had you heard about the **World Wide Flora & Fauna** program? Neither had I! They assign designators to parks, and nature preserves, and other natural areas around the globe. Their worldwide directory, by the way is 308 pages long! You can read more about the program at <http://wwff.co/> . The US WWFF site is under construction, but can be found at <http://wwff-kff.com/> .

This is a nice dovetail with NPOTA, since some of the NPOTA sites overlap existing WWFF entities. NP14 is one example. Besides being NP14, it also carries the WWFF designator of KFF-0020.

Hamvention® Satisfaction Survey



Hamvention® 2016 Post-Show "Satisfaction Survey" Under Way: Was [Hamvention](http://hamvention.org)® 2016 a hit? The sponsoring Dayton Amateur Radio Association ([DARA](http://dara.org)) and the various committees responsible for making Hamvention happen want to know. Hamvention has posted a post-show "[Satisfaction Survey](http://hamvention.org/contact-us/surveys/)" (<http://hamvention.org/contact-us/surveys/>) to solicit comments and observations from those who attended this year's big show. "Comments and observations are important in the continual effort to make improvements,"

DARA said. As an incentive, three survey respondents will be selected to receive two tickets to the 2017 Hamvention. The survey provides the opportunity for respondents to describe their Hamvention experiences in their own words, telling what they enjoyed and/or what could be improved. The current survey will remain active for at least 90 days, and the ticket drawing will take place on August 22. DARA has sponsored Hamvention since 1952. It is the world's largest Amateur Radio gathering. **The next Hamvention is scheduled for May 19-21, 2017.**

Radio Rock Stars at Contest University



Bill, KW8KW

Lots of the Radio Rock Stars of Contesting: N0AX, NC0B, N6TV, W0YK, W3LPL and many more at the Contest University in Dayton including some guy named Tim Duffy, K3LR.



Sessions all day from 8 AM to 5 PM, every one packed with great information from operating to technical.

We even had a surprise visit from Tom Gallagher, new ARRL CEO. The day flew by. I am already planning for next year.

DX and Contest SIG

Chuck, W8PT

At our last DX/Contest SIG meeting, one of the discussion topics was how can we make the club site more "useable" than just for contests.

Terry, KB8AMZ, came up with what we felt was a good idea. Before we can understand how to make the club site more useable, we need to understand the interests of the club members. The suggestion was to put together a brief survey, asking the club members what their interests are in order to determine how the club site can best serve the membership.

So with that in mind, I will be getting together with a couple of members for the purpose of getting a survey put together and then getting it out to the members to get feedback on your interests.

With that info in hand, it will make it somewhat easier to determine how we can serve you in regards to the use of the club station. We now have a station with multiple op positions ready to be used. This is a resource that a majority of clubs do not have available for their members. So how do we put it to the best usage for all members that want to use the club.

Keep your eyes peeled for the survey and PLEASE respond when you see it.



PCARS
Join Now
Discover the FUN



New Extra Class Question Pool - July 1st

From the ARRL VEC

On July 1, 2016 a new **Element 4 Extra Class question pool** will take effect for examinations. VECs and VEs will have new test designs available for use at exam sessions effective that date.

The newly revised pool released in January 2016 (updated and re-released March 5, 2016) by the Question Pool Committee (QPC) of the National Conference of Volunteer Examiner Coordinators (NCVEC) must be in use starting July 1st. There are 12 graphics required for this pool and 713 questions in this pool, up slightly from 702 in the previous pool. Question E9H03 was deleted from the pool and should not appear on exams. The balance of E9H section was not renumbered, leaving 10 questions. To view all three questions pools, visit the NCVEC web site at www.ncvec.org/.

With the Extra Class exam questions changing July 1st, new test designs must be used effective that day. Previous ARRL VEC supplied Extra class exam booklets versions (2012 series) and computer generated Extra class exams created from the 2012 question pool are only valid until midnight June 30, 2016. At that time VE Team leaders will destroy the old versions of the Extra Class exams.

The question pools review is part of a regular process and each question pool is reviewed and updated on a four year rotation. No question pools are scheduled to be updated or released in 2017. Useful information pertaining to the pools can be viewed on the ARRL Web at www.arrl.org/question-pools.

Antenna Day 2016

On May 7th the PCARS Field Day crew was hard at work setting up the stations and antennas for testing. This is what PCARS calls 'Antenna Day'. From all that has been heard, everything went very well and we are excited to return to the Freedom Township Community Park on June 25/26 for Field Day 2016.

These are just a few of the photos taken. You can see all of the photos on the PCARS web site under the 'Activities' tab at: http://www.portcars.org/wp/?page_id=6508



Working DX Pileups Article Available

From the ARRL



Martti Laine, OH2BH

Martti Laine, OH2BH, Article on Working DX Pileups Now Available

An article by legendary DXer and DXpeditioner Martti Laine, OH2BH, on how to work DXpedition pileups now is available. The Northern California DX Foundation (NCDXF) has published the article, "The DX Chase: It Takes Two to Tango," (<http://www.ncdxf.org/newsletters/2015-AUTUMN.pdf>) in a special edition of the NCDXF Newsletter. The article was written in cooperation with the DX University (<http://www.dxuniversity.com/>) founded by Wayne Mills, N7NG, and the "original" edition appears on the DX University website.

The article reflects Laine's lifetime of DXpedition experience, including the activation of 12 all-time new entities, and describes how DXpedition operators can more effectively work Europeans in a rare-DX environment. In an introduction to the article, Mills said, "In any DXpedition pileup, effective communication between the DXpeditioner and the DXers is critical." When communication breaks down, he continued, "The result is often a complete lack of control by the DXpedition operator - and that's not fun."

Laine's "original" article mentions the recent VK9WA Willis Island DXpedition, which he has called a "very pleasing experience" and "the most balanced and fair" geographically speaking. Mills will write a follow-up article, "The DX Chase: It Takes Two to Tango - Part 2."

Thanks to NCDXF, DX University, and Martti Laine, OH2BH

Skarp Reef

AI, K8EUR

I see in the publications that Martti, OH2BH is re-living some of his old DXpeditions to celebrate 2016.

This is the first time I worked him. According to the card, I was one of the 800 fortunate ones to work him during his 12-hour activation. I wonder if he is going back to Skarp Reef this year?



1969 DX-PEDITION		OH2BH/OH0/SR - SKARP REEF			
TO RADIO	JULY	GMT	MODE	RST	BAND - MHZ
K8EUR	7 <input type="checkbox"/> 8 <input checked="" type="checkbox"/>	0042	<input checked="" type="checkbox"/> 2x SSB <input type="checkbox"/> CW	59	14 <input type="checkbox"/> 21 <input type="checkbox"/>

During this 12 hour DX-pedition we had 800 QSO's with 40 countries. We worked from an unheated tent in high winds, thunderstorm, lightning, rain and only 50 to 60° F temperature. We are happy that you were one of our QSO's.
P.S. Unfortunately ARRL counts this QSO as OH0 - Aland Island.

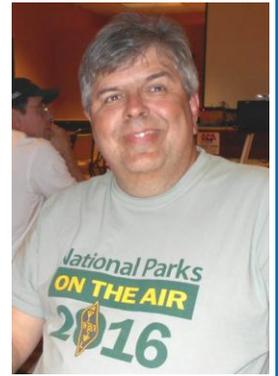
OPERATORS:	OH2BC Kari <input type="checkbox"/>	EQUIPMENT:	SWAN 350 XCVR
	OH2BH Martin <input checked="" type="checkbox"/>		MOSLEY TA 33 JR
	OH2BM Peter <input type="checkbox"/>		HONDA 1000-E PWR SUP.
	OH2BQ Art <input type="checkbox"/>		
	OH2QV Anssi <input type="checkbox"/>		
	OH2KH Osmo <input type="checkbox"/>		
	(Captain)		

QSL ADDRESS:
P.O. BOX 40015
HELSINKI 40, FINLAND

QSO VERIFIED BY: *Martin*

What I Did On My Dayton Vacation

John, KD8MQ



Well, unlike a lot of you, I did NOT spend the bulk of my time at the Hara arena. My week in Dayton began a few months ago, when I was asked to help with the “Dayton On The Air” project, where the league was interested in setting up a pair of stations at the Dayton Aviation Heritage Site. That’s HP11 for us NPOTA Junkies.

We had rain, we had sun. Our Saturday operation was, unfortunately, abbreviated, thanks to Mother Nature. On Friday afternoon, I met Ruth, KM4LAO, and her Mom, Sharon, KM4TVU. Ruth is on the 2016 Youth DX Adventure team heading to Saba Island in August, and Sharon will be going along. I really was impressed watching Ruth burn up the airwaves at HP11. You can read more about her on the 2016 Team page at www.qsl.net/n6jrl/2016Team/2016_team.html. BTW, Youth DX adventure is one of the great causes that PCARS contributes to.



Then, on Saturday Doug, W8EOT drove into town to say hi. In case you’re wondering, Doug & I are the first two Worked All Ohio state Park Award applicants. Sorry Parky, We did not get pictures!

On Sunday, I met a lot of new faces as Hams were stopping by to activate the station before we tore down for the day. All in all, I had a lot of fun at the Wright

brothers Bicycle shop. Next year, I hope to actually take the tour.



This isn’t to imply that I spent my entire weekend at the Bicycle shop. I made it to Hara on Friday, and again (briefly) on Saturday morning. Thursday was some time spent at contest University. This one is highly recommended, even if you aren’t a contester.



Saturday night, Ben, KD8KMQ, and I went to the West Chester ARA clubhouse. They are set up in the old VOA Bethany relay station museum. It was well worth the time spent.

Finally, to top off the weekend, I took the long way home, and did a couple NPOTA activations. Once I got home, I shut my phone off until the next day. **Would I do it again? Darn right, I will!**

PCARS Special Event Operators

Certificates are still being sent out to the Amateur Operators that contacted K8BF during our special event station celebrating our 10th year as an ARRL affiliated club on April 23rd at the club site.

At the May PCARS meeting, six of the nine operators were present and they received a nice certificate of appreciation for being on the Special Event Team.



Special Event Station

K8BF

ARRL AFFILIATED CLUB

The Portage County Amateur Radio Service, Inc. (PCARS)
Celebrating 10 years as an ARRL Affiliated Club

K8BF is located at the PCARS Club Station in Ravenna, OH USA - Portage County, Ohio - Grid EN91 - CQ Zone 4

K8BF was put on the air during our 10 year ARRL Affiliation Special Event on April 23, 2016 and made 327 contacts.

Congratulations to the operators that put K8BF on the air:

**W8PT, KB8UUZ, KD8SKL, KB8TUY, WD8DAU,
NR8W, K8CAV, KB8CLH, KA8TOA**

PCARS was founded on November 14, 2005 and became an ARRL Affiliated Club on April 20, 2006.
PCARS club call sign is K8BF - "Kilo Eight Big Fun".
During the first 10 years over 300 amateur radio operators have become members of PCARS.



PCARS K8BF

The Club that puts the FUN in Ham Radio!



Charlie the Tuner's HF High-Lites

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



Hello June! Boy oh boy... 5 months of 2016 already history. The WX has been very good lately so I hope that whoever has had antenna work, has been busy. I have and I am almost done. Should be back on the air in about a week or so.

Since I haven't been on the air, I have depended on various DX reports to keep myself interested and excited about getting back on. There have been some very interesting DX happenings and I hope that many of you have taken advantage of them. I understand that 6 meters has been open at various times so those of you who have 6 meter capabilities should have been working the magic band.

It's ironic that when I started back in 1962, 6 meters was simply 6 meters. There was no mention of "magic" when discussing 6. Now it's referred to as something of an enigma. Frankly, I believe it's open more often than we believe. Everyone listens for an opening but very few venture a CQ. I think we'd be surprised to find that someone will come back to us if we do call CQ. And who knows, it might be a DX station. As they say, "nothing ventured, nothing gained."

Let's get on with this month's report.

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.

And I have said it before and I will say it again, this report "could" contain "Pirate/SLIM" operations or more likely a "BUSTED CALLSIGN". As always, you never know - "Work First Worry Later".

COWS OVER THE WORLD (DXpeditions Planned). Reminder - The ARRL Web Site/Daily DX reported on January 12th: Tom Callas, KC0W, has announced the all-CW "Cows Over the World" DXpeditions for 2016. All callsign suffixes will contain "COW". The schedule calls for a summer departure to (in this order): American Samoa, Samoa, Tokelau, Solomon Islands, Temotu Province, and Bangladesh. He may add Nepal and Bhutan. There will be no time frame for operation from each entity. "The determining factor will be when the pileups die down it's time to pack everything up and move along", he said. Callas said he's spent months researching the absolute best DXing locations for each island and for Bangladesh (he's secured all but Tokelau). "This will be the only DXpedition that I'm aware of in which the operator will operate from separate sides of the islands", he said. The Minnesota DXer pointed out that the west and east coasts of South Pacific islands are separated by mountains, and that he learned first-hand how much mountains attenuate HF signals while he was operating from Haiti. Emphasis will be on 160, 80, and 40 meters. A tentative phase II "Cows Over Africa" DXpedition is on the drawing board. <http://www.arrl.org/news/cows-over-the-world-cw-dxpeditions-planned>

4A. MEXICO (Bird Op, Special Event). Operators Ismael/XE1AY and David/XE3DX will be active using the special event call sign 4A1DX between now and June 14th. Activity is to celebrate 11th anniversary of the Grupo DXXE, Mexico's top contest and DX radio club. Operations will be on the satellite, FM only (**SO-50, AO-85 y Lilacsat-2). The QSL Manager is Dick, N7RO, direct or by the Bureau (Make sure your Bureau QSL card is clearly marked via N7RO). Don't send your QSL cards to the Mexican Bureau; they will not be answered because they have no QSLs. They will be uploading the log to LoTW and ClubLog at the end of their operation (June 2016). QSOs with this station are also good for the DXXE Award. ADDED NOTE: The special event call sign 4A1DX is also active on all HF bands using CW, SSB, RTTY, PSK31, JT65 and EME. QSL Manager is also N7RO. See QRZ.com under 4A1DX for more details.

9H, MALTA. Operators Orazio/IT9BTI, Taka/JH3FUK, Ikuo/JA3TJA, Ichiro/ JA3QWN and Mars/JA3FVJ will be active as 9H3G from Malta between June 28th and July 4th. Activity will be holiday style on 40-10 meters using CW, SSB, RTTY and PSK. Antennas will be Spiderbeam, Vertical and Dipole. QSL via JH3FUK and ClubLog.

DX25, PHILIPPINES (Special Event). Members of the DX1HAM team will be active as DX25MP between June 10-12th. Activity is to commemorate the 25th anniversary of the eruption of Mt. Pinatubo, the second biggest volcanic eruption in the 20th Century. There were 847 lives lost during this tragic event. Operations will be on various bands and modes. Operators mentioned are DU1AV, DU1DG, DU1SVZ, DU1SDT, DW1SVY, DU1JC, DI1BP, DU1LC, DV3KWN, DU1VCR, DU1WBX and DU3NB. QSL via direct (see QRZ.com) or by the Bureau. For more details, see their FaceBook pages at: <http://tinyurl.com/zv7jfsd> <http://tinyurl.com/hn7b9fh> <http://tinyurl.com/j4e97gu>

E2, THAILAND. Members of the HSDXA Team will be active as E2X from Thailand June 3-5th. Activity will depend on propagation. Look for activity possibly in the Seanet Contest. QSL via E20GMY or LoTW.

IOTA NEWS

AS-066. Members of the Vladivostok Contest Club Team will be active as UIOL from **Reyneke Island**, Asiatic Russia, during the RSGB IOTA Contest (July 30-31st) as a Multi-Single entry. QSL via RW0MM.

AS-125. Members of the HSDXA Team will be active as E2X from **Chang Island**, Thailand, between July 29th and August 3rd. Activity will be focused on 80-40 meters. They also will be in the RSGB IOTA Contest (July 30-31st) as a Multi-1/Island entry. QSL via E20GMY or LoTW.

EU-008. Operators Gordon/GM7WCO, Bill/GM3ZRT, John/GM0DJG, Jason/ GM7VSB and Barry/GM3YEH will be active as GM0ADX/P from **Isle of Mull**, Scotland, during the RSGB IOTA Contest (July 30-31st) as a Multi-Single/Island/Low-Power entry. QSL via GM0ADX.

EU-123. A joint operation with the members of the Sheffield & District Wireless Society, Sheffield HF DX Group, Workshop ARS and the 93 Contest Group will be active as GM5TO from **Isle of Arran**, on the Seal Shore campsite, Kildonan (WW. Loc. IO75KK) during the RSGB IOTA Contest (July 30-31st). Outside the contest they will be active as GM2AS (Sheffield DX Group) between July 28th-Aug 1st. QSL via G3PHO for both call signs. NO EQSL, NO LOTW and NO CLUBLOG. Operators mentioned are Peter/ G3PHO, David/G8EQD, YL Krystyna/2E0KSH, Steve/G0EAK, YL Sue/ M6XAK, David/M5DWI and John/G4LKD.

EU-148. Gil, F4FET, will be active as F4FET/P from **Fort Brescou Island** (WLH LH-0500, ARLS FRA-015, DIFM ME-001) between June 3-5th. Activity will be on 40-6 meters SSB only. He will use a FT-857 into a ground-plane and vertical dipoles. QSL via his home call sign. For update, watch: <https://www.facebook.com/f4fet>

NA-126. Operators Fred/VE1FA, YL Helen/VA1YL, Alphonse/VO1NO, Wayne/ VE1BAB, Lowell/VY2OX, Rich/VA1CHP and Michel/VE2MM will be active as VC1A from **Bon Portage (Outer) Island**, NS Province South Group, during the RSGB IOTA Contest (July 30-31st) as a DXpedition entry. QSL via VA1YL.

SA-042. Members of the PARA DX Group <paradxgroup.com> will once again be active as PX8K, but this time from **Caviana de Dentro Island** between July 27-31st. Activity will include the RSGB IOTA Contest (July 30-31st). Activity will be on the HF bands and 6 meters using CW, SSB and the Digital modes. Operators mentioned are Hemeterio/PU8WHJ, Renner/PY7RP, Luc/PY8AZT, Jaime/PY8FML and Ren/PY8WW. QSL via PY8WW or the OQRS.

K6VVA/KL7 MYSTERY IOTA (*YOU GOTTA READ THIS TO BELIEVE IT!!*) -- Rick, K6VVA, states, "Between 1 June 2016 and 30 August 2016, I intend to activate several more KL7 IOTAs. But each NA-xxx IOTA # will remain a "MYSTERY" until AFTER the Expedition is completed. You MUST check this webpage <http://www.k6vva.com/iota/> for details and Confirmation of QSO instructions, which will then include the specific date(s) of QRV and IOTA # needed to solve each "Mystery". For more details, see Rick's Web page.

PACIFIC TOUR. Bert, CX3AN, will activate 3 islands in the Pacific during the month of June. His tentative schedule is: June 2-7th - **Majuro Atoll (OC-029)**, Marshall Islands; call sign V72HA June 7-9th - **Chuuk Island (OC-011)**, Micronesia; call sign V63AN June 9-14th - **Koror Island (OC-009)**, Palau; call sign T88AN Activity from all islands will be holiday style on 40-6 meters using CW and SSB. QSL via EB7DX.

PIRATE ALERT. Prasad, VU2PTT, reports, "Recent CW operations spotted on the cluster indicate the call of old-timer Ganesh VU2TS is being pirated. Spots show Ganesh being heard and worked in EU and USA around 0400-0500z - that is a period of time when there is absolutely no propagation on any band to USA. I spoke with Ganesh yesterday on the phone and he mentioned he is aware of the situation now. He is mostly QRV on JT65 and PSK these days."

V6, MICRONESIA (Canceled). Operators Sho/JA7HMZ and Masahiko/JA7EPO, who were expected to be active as V63DX and V63IX, respectively, from Pohnpei Island (OC-010) between June 17-25th, have canceled their operation. No reason given.

VK9N, NORFOLK ISLAND. Jim, VK3PC, is active as VK9PC from Norfolk Island (**OC-005**) starting May 24th for about 14 days while attending the "Wireless Institute of Australia" (WIA) annual general meeting/events between May 27-29th. Activity will only be SSB. QSL via VK3PC, direct or by the Bureau. ADDED NOTE: Look for VK9WI and VI9ANZAC to also be used during the WIA event from Norfolk Island. See details about these stations on the WIA Web page at: <http://www.wia.org.au/joinwia/wia/2016agm>

So instead of sitting on the sofa watching a rerun of Walker, Texas Ranger for the fifth time, turn the rig on and work some DX. I'm sure you didn't say when you were buying your rig, "This will look great gathering dust."

**There you have it for this month and a little ahead. Get on the air and work some DX.
Until next month, 73!**

Hamfest Calendar

06/05/2016 - BreezeShooters Amateur Radio Club - Western Pennsylvania Section Convention - Location: Big Butler Fairgrounds - 1127 New Castle Road - Prospect, PA 16052 - Website: <http://breezeshooters.org> - Contact: Jim Heiles, KB3IYS - 134 Easley Road Pittsburgh, PA 15237 - Phone: 412-600-1979 - Email: hamfest2016@breezeshooters.org

08/06/2016 - Columbus Hamfest - Location: Aladdin Shrine Center - 1801 Gateway Circle - Grove City, OH 43123 - Website: <http://www.columbushamfest.com> - Sponsor: Voice of Aladdin Amateur Radio Club (W8FEZ) - Public Contact: Jim Leonard, WD8MRT - 37-B Noble Terrace Springfield, OH 45504 - Phone: 614-264-8566 - Email: wd8mrt@arrl.net

08/21/2016 - Cuyahoga Falls ARC's Eighth Annual Tailgate Hamfest - Location: Robert Pinn Armory - 4630 Allen Road - Stow, OH 44224 - Website: <http://cfarc.org/tailgate.php> - Public Contact: Frank Tompkins, W8EZT - PO Box 614 Cuyahoga Falls, OH 44222 - Phone: 330-928-4048 - Email: tailfest2016@cfarc.org

09/03/2016 - 67th Annual Uniontown ARC (W3PIE) Gabfest - Location: Uniontown Amateur Radio Club Grounds - 433 Old Pittsburgh Road - Uniontown, PA 15401 - Website: <http://www.w3pie.org> - Public Contact: Mike Kosco, KA3WOI - 12 Burlington Avenue Uniontown, PA 15401 - Phone: 724-437-3943 - Email: mikeko@verizon.net

07/10/2016 - 20/9 Radio Club Hamfest 2016 - Location: Austintown Senior Center - 112 Westchester Dr - Austintown, OH - Website: <http://20over9.org> - Contact: Dotti ONeilMeleski, KC8SYF - 17520 Denver Dr Lake Milton, OH 44429 - Phone: 330-651-8420 - Email: Hamfest@20over9.Org

09/11/2016 - Butler County Amateur Radio Association BCARA SwapFest - Location: Unionville Fire Dept - 102 Mahood Rd - Butler , PA 16001 - Website: <http://www.w3udx.org> - Contact: Rick Melton, N3VKM - 214 Criley Rd - Cabot, PA 16023 - Phone: 724 287-8134 - Email: n3vkm@arrl.net

09/25/2016 - Cleveland Hamfest and Computer Show - Location: Cuyahoga County Fairgrounds - 164 Eastland Road - Berea, OH 44017 - Website: <http://www.hac.org> - Contact: Glenn Williams, AF8C - 4134 Stoney Ridge Road Avon, OH 44011 - Phone: 800-CLE-FEST - Email: info-list@hac.org

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

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

Lego Man at Dayton



Amy, KD8SKL

I want to say something about how funny this looks - It's all in your perspective!! It almost looks like a tower with a guy on the tower, but then you see the close up - and it's a small fake tower with a Lego Guy climbing it - so funny!!!!

Also, Here are a few other shots I have from Dayton. One with Eddie, KD8SOP and another with the 'Gals from PCARS'



Lego Man



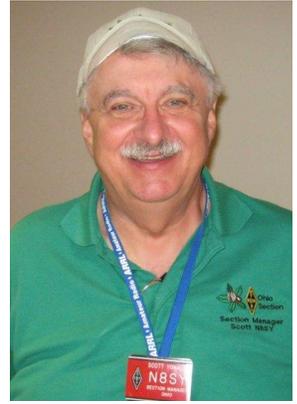
WD8BIW, AE8YL, KB3OQV, KB3GXB3, KD8SKL



KD8SKL and KD8SOP

Let's Talk

Scott, N8SY
ARRL Ohio Section Manager



As July gets closer I am seeing more and more of you in ARES® being trained and certified in ICS-100, 200, 700 & 800, and some even going on with other ICS training as well. This is great news, as that we've set a target date for the end of June for everyone that's going to be involved with FMEA, or any government run event, to have your training completed by then. I really would love to see everyone in Ohio have these 4 basic courses under their belts!!

For those of you who really aren't seeing the reason for this I want you to take just 10 minutes of your time and read an article published in the March edition of QST. It's by Rick Palm, K1CE. Now for those of you who don't get QST, I have this article reprinted on our website <http://arrl-ohio.org/QST.pdf>. I know that once you read Rick's views it will greatly help you better understand the ins and outs to all of this, and why this is so very important to YOU.

I do want to assure you that if after reading all about why these ICS certifications are so very important you still decide not to go through with completing them, it's ok. There will still be some things that you can do, just not as many of them. Probably the most import item to remember, you most likely will not be asked to participate in any activity within the FEMA organization or most government run operations. But, there are other things, like bike races, parades and the like that won't require this extra training – unless something really breaks out.. Remember the Boston Marathon started out just being another one of those typical foot races that we've done so many times, then all of a sudden it changed. This can happen at any time and anywhere.



Now let's switch bands..

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

Let's shift bands once again..

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

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

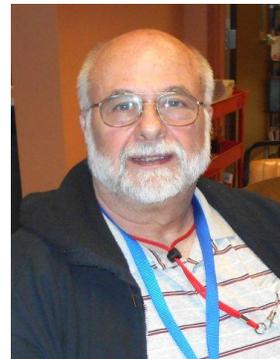
Are you a member of the ARRL?? If you aren't a League member, this is a great opportunity to become one. Want more information on how to join? Here's the link: <http://www.arrl.org/membership-levels> . There's even a 90 day FREE trial that you can apply for if you've never been a member. Got questions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

One last spin of the dial..

Well, I think that's going to do it for me this month. Did you notice the article in this month's QST about the ARRL Badges? If you haven't seen it, you're going to want to take a look, one of the badges shown is one of our own John, KD8MQ.

The First VI's

Randy, KD8ZSH



As the calendar turned over to the 1900's, amateur radio technology and international politics were racing to see which would have the most impact on those who had developed an interest in wireless radio. Marconi and the company he started were advancing the technology by leaps and bounds, and soon the general population had a hardcore few who also were advancing radio technology as they built their own equipment. Countries soon set up their own licensing systems with special regulations and call signs to identify who was on the air.

Politics reared it's ugly head and World War 1 started. How countries handled their radio hams differed somewhat. Canada and the United States both banned their hams from transmitting or receiving during the war. English hams were subject to a call for confiscation of their radios. As usual, some didn't "completely" comply with official declarations. In fact, that non-compliance helped win the war and save England.

Two British radio amateurs, Edward Russell Clarke (call sign THX and a lawyer) and Richard John Baynton (aka Bayntun) Hippisley (call sign HLX and an electrical and mechanical engineer) both discovered that in the course of their normal radio operation, (conducted despite the official call to confiscate all privately-owned wireless receivers), they were picking up an enormous amount of unencrypted radio traffic from the German Navy. These CW signals were on a lower wavelength than was currently being received by the existing British government controlled Marconi stations.



Hippisley

It became evident that the German navy was not worried about anyone else hearing their transmissions, possibly due their own experience with the sensitivity of their equipment.

The Germans failed to consider that English hams, in defiance of official government calls, were building their own equipment that could be much more sensitive, and could thus pick up signals from different frequencies and at much greater distance.

The British government already had a department called the Royal Signal Service (RSS) that had been picking up German signals, but it was made obvious to them they were missing a lot of signals. This discovery was brought to their attention by Clark and Hippisley who took a chance and told the authorities that they were breaking the law. The British government knew that this type of intelligence information would prove to be invaluable, but they were hampered by a shortage of equipment and manpower to scan for the missing radio signals. When Clark and Hipsley reported their findings to them, the light bulb came on. Why not recruit this type of operators from the civilian population. It is common knowledge that bureaucracies often times move slowly, if at all, but this time quick questions were asked of the right people. Voluntary Interceptors, or VI's as they were called, were the Hams that the government needed from the ham community.

Hippisley and Clark persuaded the British Intelligence service to set up a listening post on top of the chalk cliffs at Hunstanton on the east coast of England. To do this they had to also persuade the powers that be that amateur radio operators could do a better job in intercepting radio signals than the professional military. This they were easily able to do, and the location for the listening post was now settled.

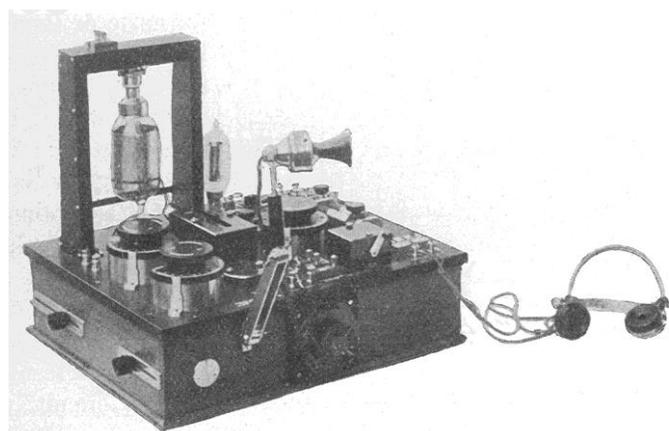
This location was ideal, since it overlooked the North Sea, with nothing between it and Germany. The two amateurs were given a blank check to obtain whatever equipment they thought necessary. Eventually, once the value of their results was confirmed, a total of 14 such listening posts were constructed and manned. But what about the Voluntary Interceptors, who had to know and use Morse Code, to man the stations?



Hippisley had been given a commission in the Royal Navy and was charged with finding staff for the new listening post at Hunstanton (the first station). He went to the Hams that he knew from college and persuaded them to join him. Vetting consisted of "did he know them from school" and "did his friends know them". Soon the staff increased even to the point of having enough people for football games at the post.

Security for the Hunstanton listening post consisted of one gunboat called the HMS Cricket. It had an anti-aircraft gun that was there to shoot at any German plane or Zeppelin that got too close. To combat boredom, it occasionally fired off a few rounds in practice. This understandably scared the locals when it happened. The only time the ship could have actually fired at a zeppelin, the crew was ashore at a social reception (read party into this) and missed the opportunity.

It was reported that because of Hippisley's efforts, it was possible for the Royal Army to predict Zeppelin raids as they could hear the orders given to get the Zeppelins out of their sheds prior to a raid.



Radio direction finding was a vital part of the post's work. This was made possible by direction finding radios supplied by the Marconi Company. Since Marconi had settled in England to obtain patents for his wireless radio technology, it was natural that the British government would turn to his company for help. Their use of special valves (vacuum tubes) dramatically increased the sensitivity of electronics. This technology made the listening post's equipment much more sensitive than Germany's equipment.

U-boats preying on food and American troop convoys remained a serious problem. Hippisley solved this problem by listening to U-boats when they were talking to each other on the radio. He devised a double-tuning device which simultaneously identified the waveband and precise wavelength of a signal. Couple this with their radio direction finding transceivers and the location of the u-boat's location was identified and the u-boat was taken out. The convoys started getting through.

The work of the hams kicked into high gear, when, in early 1915, Germany declared all the waters around England to be a war zone and started unrestricted submarine warfare. This ceased temporarily in May, 1915 after the Lusitania was sunk, but resumed later in the year at the urging of Germany's military leaders. Radio transmissions were intercepted and their point of origin noted and passed on to British Intelligence. Hams at Hunstanton and other posts that had been set up were recognized as being supremely valuable.

This was made abundantly clear on the morning of May 30th 1916 when radio traffic between ships of the German main fleet at anchor in the port of Wilhelmhaven increased substantially. This was about 300 miles from the listening post. British Intelligence guessed that something big was in the works. By the late afternoon, these contacts had shifted less than one and a half degrees, to a point seven miles away from their morning location to the mouth of the nearby river, indicating the fleet was on the move. The ham radio operators confirmed this and immediately notified British Intelligence. The main British fleet was mobilized to move to stop the Germans from reaching the open sea, where the Germans could have devastated British and American shipping. Due to the heads up provided by the hams at Hunstanton, the British fleet got to an interception point (at the German Bight) in time to engage the German fleet at the battle of Jutland. Even though the British lost more ships than the Germans in the Battle of Jutland, Germany never again attempted to use their main fleet in WW 1 as one force, probably saving countless lives. Germany reverted back to their submarine warfare policy that had been in place.



And what was happening in the United States at this time. Interesting that you should ask. Due to problems with signal interference and pranksters issuing false calls for help, Congress passed the Radio Act in 1912. Among other things, it limited hams to the 200 meter operating band and gave the president the authority to ban all ham radio operation in the United States in the event of war, and set up a licensing system. Canada banned its hams from operating or listening from August, 1914 to May, 1919. President Wilson charged the US Navy with making sure US hams complied with the Radio Act of 1912 and that US neutrality was not interfered with. That lasted two and a half years until the US entered the war, whereupon, all ham radio operation, sending and receiving, was banned. Military research did continue, but amateurs were shut out for a while. For the first few months after the World War 1 started in Europe, but before the US entered the war, the US Navy banned ham radio operation in certain western states, Hawaii, and the Philippines. That ban was lifted after a few months, only to be put back on nationwide when the US entered the war.

After World War 1 ended wireless radio technology continued to explode in England. America had some catching up to do. And it did.

Sources:

Youtube- The secret listeners

Wikipedia-R.J.B. Hippisley, Edward R. Clark, The Battle of Jutland, Hunstanton, HMS Cricket
History.com-Germany resumes unrestricted submarine warfare, et. al.

Swap-N-Shop

FOR SALE: MFJ-259B Antenna Analyzer with Case and rechargeable batteries. Good condition - \$160

Yaesu FT-1000MP - excellent condition with roofing filter and extra filters, manual - \$950

Classic Hammarlund HQ-129 shortwave receiver, electrolytics and tubes replaced 5 years ago, average to good condition, \$100

Ten Tec Corsair - complete with external power supply and speaker, optional CW filter and manual - great CW rig - \$400 OBO

Contact: George, K3GP at 330-829-9504 [09/02/16]

FOR SALE: Kachina 505DSP In great shape, original DSP radio, \$400 **Kenwood TS-830S**, HF, Has been refurbished and looks like new \$400 **Kenwood TS-811A**, 440 Mhz All Mode, looks good. Original manual \$250 **Kenwood TS-711A**, 2 Mtr All Mode, looks good. In original box with mike and manual. \$300 **Kenwood SP430 Spkr** \$ 40 **Gwinstek Function Generator** \$ 25

Gwinstek Digital Multimeter \$ 25 **Albia Pwr Supply** Dual Variable +15 &-15 \$25 **EZ Oscilloscope** 60MhZ Dual Channel \$50

Mosley CL-33-M 10, 15, 20 MTR BEAM antenna \$200 **Nye Viking, MBI-001** Tuner \$100 **Vibroplex Bug** \$ 50

Sencore TF151, Transistor tester \$25 **Shure model PE515**, Microphone \$25 **Shure model 444D**, Microphone \$25

HEIL HTH, Handie talkie headset for Kenwood HT's \$25 **AEA model QT-1**, Antenna tuner \$25

Heathkit model HD-1481, Remote Coax Switch \$25 Misc tower parts, lots contact me if interested. Will accept reasonable offers.

Yaesu FT-757-GXII, in good condition with mike \$300

Contact: Allan, AB8AA at AB8AA@portcars.org [09/02/16]

FOR SALE: Antenna Specialist 100 watt mobile amplifier - \$100 **Bird VHF slugs** - \$50 each

Lafayette HA-410 10- Meter AM transceiver w/AC cord, mobile hand mic., working. Plus two spare radios for parts - \$200.

Contact: Jeff, WA8SAJ by phone at 440-951-6406 [08/02/16]

WANTED: QST Magazines -April 1969, April 1991 February 1998, April 2007 and January 2014.

WANTED: J-38 Straight Key - Decent to good condition. Reasonably (cheap) price.

Contact: Bucky, N8OQQ by e-mail at: N8OQQ@portcars.org [06/02/16]

FOR SALE: Icom IC-7800 - low mileage, great condition.

Contact: Tim, K3LR by e-mail at: K3LR@K3LR.com [07/02/16]

FOR SALE: For Sale Yaesu FT-991 HF/VHF/UHF all mode transceiver. Purchased new August 2015. Includes Heil Proset headset adapter and RT Systems programming software with USB cable. \$1,500 **NON-FUNCTIONING Icom IC-756** (non-pro model) HF transceiver **and Icom IC-R70 receiver.** Both units intact but not functioning, some manuals and documentation included. \$25 each or \$40 for both.

Contact: Rick, K8CAV by phone at 330-620-8826 or e-mail at: K8CAV@portcars.org [06/02/16]

FOR SALE: Kenwood SP-820 Speaker - with filters \$80. **DenTron Jr Monitor 300 watt antenna tuner** - Tunes long wire, coax, twin lead antennas. \$75 **Dentron model 80-10 Long wire antenna tuner** - \$65.

Contact: Mark, W8BBQ by e-mail at: W8BBQ@portcars.org [08/02/16]



Ham Radio Podcasts

Jeff, K8JTK

Ohio ARRL Section Technical Coordinator



I've wanted to do this article for some time but kept putting it off due to more relevant and timely topics. Ham Radio Podcasts. With Dayton quickly approaching, you're likely to see many of these hosts at Hamvention. If you're not, you may have seen them in the past and wondered "what's a podcast?"

The word "podcast" is a mashup between the words "iPod" and "broadcast." There is some debate on this because the word predated the iPod portable media player. Some say 'POD' means "portable on demand." Either way, they are both accurate. "Net cast" is an Internet broadcast and synonymous with podcast but typically don't make content available offline.

A podcast is a digital media file offering audio and/or video content. PDFs or eBooks (books in electronic form) can be considered podcasts too. In general, podcast refers to audio or video. The content can be whatever the creator wants each file to contain. Most are a series of episodes covering a topic of interest. Some follow a news magazine format discussing recent news and developments. Others could be clips from a longer radio show including interviews or bits made available for download. Podcasts often serve niche interests where it might not be popular as a broadcast radio show to the general public. The same content targeted toward special interests or hobbyists would do very well.

The creator or distributor maintains a list of episodes known as a "web feed" which provides users with updates. RSS (Really Simple Syndication) is used to publish frequently updated information. The RSS rippling signal icon with headphones or microphone signifies a podcast feed. An app known as a "podcatcher" monitors the web feed for new content. The app then notifies the user or downloads the episode automatically. Once the file is downloaded, it's available offline where you don't need to be connected to the Internet. In this way someone can download a number of episodes and listen to them at a remote camping site with no Internet. This is different than YouTube or Netflix where a connection to the internet is required to view content on demand.

The first podcast was believed to be released around 2003. This technology really became popular with the growth of the internet and portable media devices like the iPod. Podcasts cover a vast range of topics including: movies, news, science, comedy, interviews, storytelling, health, love, self-improvement, music, food, business, sports, pop culture, and farming. The list... goes on. There really is something for everyone. Podcast technology is considered disruptive because the radio business spends a lot to provide content to wide-ranging audiences. Podcasts have shown that preconceptions of audiences, production, and consumption are no longer traditional. Sure some podcasts are produced in studios with professional equipment. The majority are recorded using similar pieces of gear found in your ham shack: professional microphone, mixer, computer, internet connection to bring in guests, and maybe a video camera or webcam thrown in there too. Anyone can do it!

On the flip side, since anyone can do it, episodes depend on schedules of the host(s). Some release on a weekly schedule, some monthly, others "as time permits." Some podcasters have been around awhile. While others try it out and decide it's too much effort.

I consume podcasts using my phone. If you do the same, know the limits of your phone's data plan and use Wi-Fi when possible. Video files in particular can be very large depending on quality (hundreds of megabytes to a gigabyte). Podcatcher apps are available on every platform. Check the 'app store' for your device.

PocketCasts is my favorite. It's available on Apple and Android devices for about \$4. I think it's the nicest looking app and it's easy to discover podcasts. Stitcher is another popular app, and free. Apple iTunes, Google Play, and TuneIn have podcast directories. Poddirectory (poddirectory.com) is great for desktop users. Also devices like the Roku, Chromecast, and Apple TV allow for viewing on a TV.

Podcasts are **free**. Many are supported through sponsors. In the same way that podcasts are targeted for special interests, the ads typically are too. Some ask for support and donations in lieu of advertisements. Others don't ask for any support. If you find any podcast useful or you regularly listen, show your support for the work they are doing by throwing them a couple bucks or visiting their sponsors. It does cost money for equipment, bandwidth, storage, projects demonstrated, and services needed to bring you a wonderful podcast.

For content and podcast creators, gain lots of exposure for your work. Post new episodes and show notes on places where likeminded people hang out (www.QRZ.com). Even though iTunes is a terrible experience all around, nearly all podcatcher applications get their directories from iTunes. Get listed there so all the podcatcher apps pick up the show!

Below is a list of ham radio podcasts I've found. It includes the ARRL! I'm sure this list is not complete because I'm constantly finding new ham radio podcasts. This list mainly came from headline posts on QRZ.com or I discovered them in my podcatcher app.

Podcasts:

- **100 Watts and a Wire** (100wattsandawire.com) – Experiences of a new ham operator hosted by Christian K0STH.
- **Amateur Logic and Ham College** (amateurlogic.tv) – Ham Radio and technology show hosted by George W5JDX, Tommy N5ZNO, and Peter VK3PB. They do a second podcast covering theory, history, and topics that appear on the Technician exam.
- **Amateur Radio Newsline** (arnewsline.org) – News for Radio Amateurs. You're probably heard this newscast on a local repeater.
- **ARRL Audio News** (arrl.org/arrl-audio-news) – News of the week from the ARRL hosted by Sean KX9X.
- **Everything Hamradio** (www.everythinghamradio.com) – Ham radio topics hosted by Curtis K5CLM.
- **Ham Nation** (twit.tv/hn) – Ham Radio topics covered by Bob K9EID, Gordon WB6NOA, George W5JDX, Don AE5DW, Amanda K1DDN, Val NV9L, and Dale K0HYD. I host the D-STAR After Show Net for this podcast.
- **Ham Radio Now** (hamradionow.tv) – Covers ham radio topics, forums, and seminars with Gary KN4AQ.
- **Ham Talk Live** (hamtalklive.com) – Call-in ham radio show with Neil WB9VPG.
- **HamRadio 360** (hamradio360.com) – Ham Radio topics hosted by Cale K4CDN.
- **ICQ Podcast** (icqpodcast.com) – Talk-radio style podcast.
- **Linux in the Ham Shack** (lhspodcast.info) – Covers Linux, Open Source, music, and food for the shack hosted by Russ K5TUX (get it?) and his YL Cheryl.
- **PARP [Practical Amateur Radio Podcast]** (myamateurradio.com) – Operating with Jerry KD0BIK.

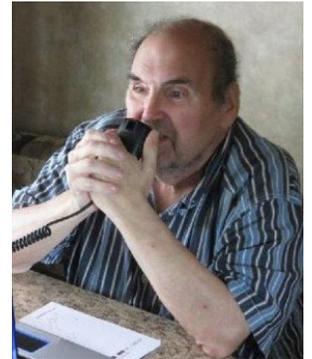
- **QSO Radio Show** (www.qsoradioshow.com) – Ham Radio talk show on WTWW shortwave hosted by Ted Randall WB8PUM.
- **QSO Today** (qsotoday.com) – Interviews with Eric 4Z1UG.
- **SolderSmoke** (www.soldersmoke.com) – Radio-electronic homebrewers.
- **TX Factor** (txfactor.co.uk) – Professionally produced programs dedicated to ham radio.

Net casts (typically online only):

- **DX Engineering Interviews** (youtube.com/user/DXEngineering) – Tim K3LR interviews guests.
- **Ham Sandwich** (thehamsandwich1.blogspot.fi) – “Off beat” show about Amateur Radio with Steve KD0PXX and Greg OH2FFY.
- **Ham Sunday** (www.youtube.com/user/adafruit –then search “Ham Sunday”) – “Lady Ada” Limor AC2SN of Ada Fruit learning ham radio.
- **K6UDA** (www.youtube.com/user/bondobob) – Bob K6UDA, the Elmer with an attitude. This one can be NSFW (not safe for work).
- **W5KUB** (www.w5kub.com) – Tom W5KUB, you know him as the guy who documents his trip to Dayton Hamvention using the “Helmet cam.” He hosts roundtable events on Tuesday nights.
- **YHAMRADIO** (w5mhg.com/yhamradio) – Interviews “Y” hams got into ham radio with Mark W5MHG.

Stow Away to Dayton 1955

Chuck, K8BBE



My first trip to Dayton was in 1956 when the Hamvention was at the Biltmore Hotel and the flea market was small and in the parking deck.

I was 9 years old, but I did try to first go in 1955. I skipped school and hid in my Dad's (W8KYK) trunk thinking I'll be miles from Canton before I'm discovered. But unknown to me, he was going to pick up W8KH from Canton and opened the trunk about six miles from home. After a long talking to, he sent a letter to me saying I can go next year, if I get my license.

Needless to say, I worked hard and got my Novice. I've been going ever since only missing three years due to service time (1967-1969), and last year due to a lengthy hospital stay.





PCARS Members - Amateur Radio License Plates Wanted

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

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

From the Ohio BMV:

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

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

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

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

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

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

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

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

PCARS Yahoo Group

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

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

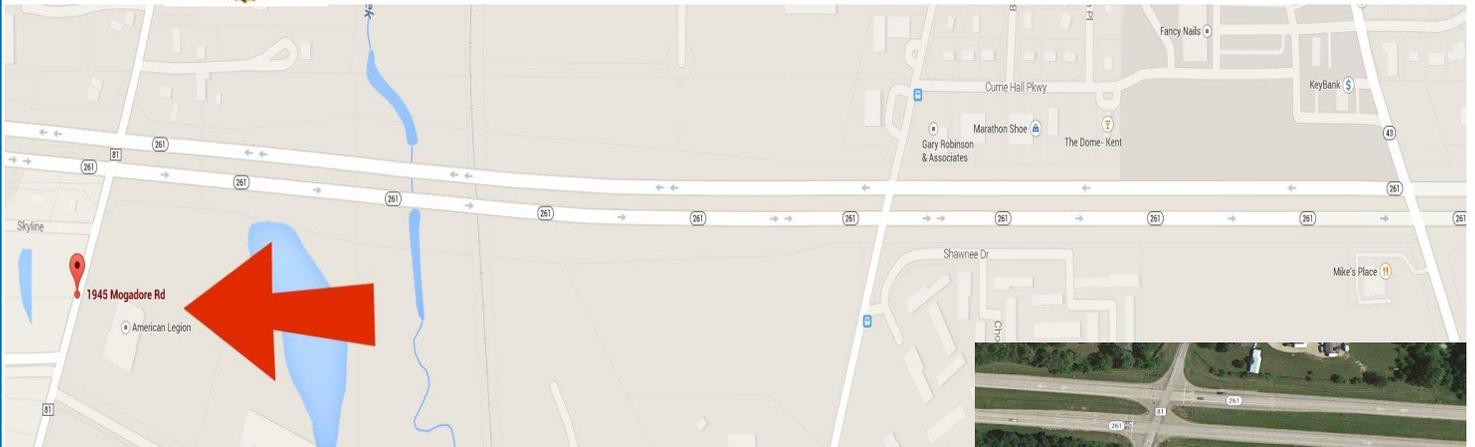


PCARS Meetings

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



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



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



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

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

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

Photos from the May PCARS Meeting



PCARS May 9, 2016

PCARS
Join Now
Discover the FUN





Why Contest ?

Kitty, W8TDA

Ohio ARRL Assistant Section Manager



If you are not a contester, that thought has probably crossed your mind, especially when you just want to chat with other hams. Perhaps you have even been bold enough to speak your mind about freeing up the air waves by banning contesting. Like many other facets of our diverse hobby, contesting is a tool you can use to build and enhance skills you will need to provide emergency communications, the reason for our existence. In an emergency, you will likely be asked to send and receive accurate information about conditions at the same time that your adrenalin is pumping and controlled chaos is erupting all around you. Under these trying conditions, How long will you be able to stay on you're a game? How tuned in to the little nuances of your equipment are you? And, last but not least, what's the best way to get the information to its destination?

I think that contesting is one of the best simulators of emergency operating conditions amateur radio has to offer. It can help you learn the ins and outs of your equipment and propagation. Through repetition and practice copying contest exchanges on crowded bands under less than ideal propagation, you will gain skill and confidence to provide effective communications during an emergency. Working contests for as long as you can without stopping will help you build the physical and mental endurance you will need when the real call comes. Best of all, **it's fun**, especially if you like competing against yourself or your friends for bragging rights!

So, with all that contesting has to offer, perhaps the real question should be **"why not contest"?**

We're Still Waiting

Remember this sign at the Hara Arena during Hamvention 2015?

Did I miss something while there this year?



Well..... maybe 2017 ???

Idaho QSO Party - PCARS TOP SCORE !

Every so often you hear KB8UUZ and W8KNO telling people to “Send in your contest log! Even if it is a low score!” Well, it’s also true for the PCARS club site contesters. During the weekend of the Wisconsin and Idaho QSO Parties, K8BF was on the air from the club site. We did pretty good with the Wisconsin QSOP, and only dabbled a short bit looking for Idaho contacts. We did make some and sent in the log with a whopping 40 points

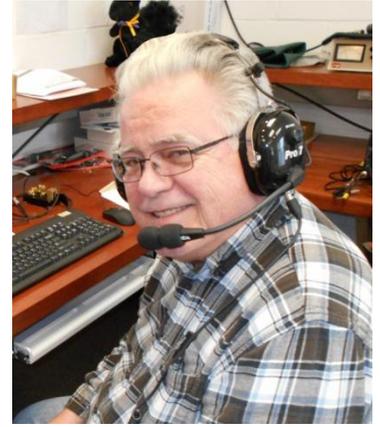
Well, guess what? PCARS came in with the TOP SCORE for Multi-Operator outside of Idaho !!!! And, we have the certificate to prove it! Seven of the 12 operators that were participating were at the last PCARS meeting and received a copy of the winning certificate.



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 again 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:

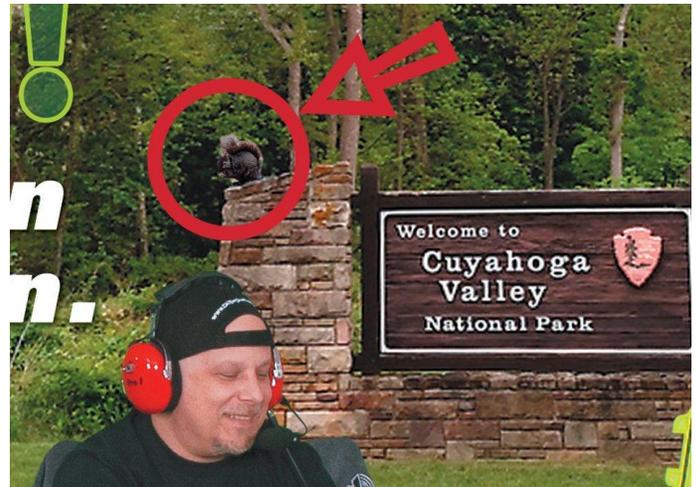
K8CAV, AC8NT, WB8LCD, N8RLG, KB8UUZ, KC8PD, W8PT, K3GP, N4KC, KW8KW, K8EUR, KD8MQ, KD8SKL, N8SY, KD8ZSH, K8JTK, K8BBE, W8TDA, Dan Maloney, the ARRL, the ARRL VEC and the World-Wide Web.

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

DX Engineering Catalog Cover and the PCARS Squirrel

This cover was a bit tricky - there are TWO squirrels on the cover.

Squirrel #1 is on the National Park Sign just above Mark, W8BBQ. If you look close, it is a Black Squirrel with a hint of a red or fox squirrel in it's color. I've seen a lot of this type around, but when a true Black Squirrel shows up you can really tell the difference.



So, look at Squirrel #2 off near the edge of the field - yep, that's a true Black Squirrel.

Thanks goes out to **DX Engineering** for having a bit of fun in their catalog for PCARS members. The Summit Racing catalog artist that helps put the squirrel on the covers of the **DX Engineering** catalog is Jason Liss, KD8WGR.

Just think, the PCARS mascot is shown around the world on a catalog cover!!

HAMFEST, ELECTRONICS, & COMPUTER SHOW

FREE ADMISSION – FREE PARKING



WHEN: Sunday July 10, 2016
TIME: 8AM till 1PM
WHERE: Austintown Senior Center
112 Westchester Dr. Austintown, OH
(Just off State Route 11 and Mahoning Ave)

Tailgate spaces: \$5.00 per space

(Outside tailgate weather permitting; if inclement weather tailgate will be inside – No Table)

Inside Space: \$10.00 includes electricity
6ft & 5ft tables available at no additional cost by pre-registration till
sold out. Welcome to bring own tables.

ALL AIR CONDITIONED BUILDING!

Food and Beverages Available
(Provided by the Austintown Senior Center)



**** ARRL License Testing Available at 8:30 AM ****

****Forums: **ARRL/ARES** ** Ham Electrical Safety**
****Basics of EZ-NEC Antenna Modeling******

****QSL Card Checking****



Prize Tickets Sold For: 1st Place YAESU FT-2900 2M MOBILE

2nd Place 2M/440_Hand Held Radio

PLUS ARRL Gift Certificates, and More!

****Half Hour Prize Drawings****

**** 50/50 Drawing ** **Mobile Check-in prize****



Visit our Website www.20over9.org Email: hamfest@20over9.org

330-651-8420 Check in 147.315+ K8TKA repeater

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

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

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

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

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

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



~ 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
	Newsletter Editor	KB8UUZ Tom Parkinson
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) 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



NLC



"When All Else Fails - Amateur Radio Works"