



The **RADIOGRAM**

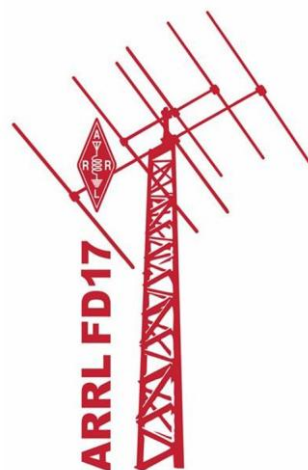
When All Else Fails ~ Amateur Radio Works
~ Official Newsletter of the Portage County Amateur Radio Service, Inc. ~

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ANTENNA Day May 6th



HAMVENTION® 2017

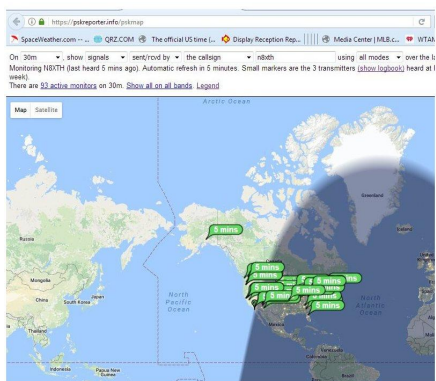


Figure 2

Get On The Air with JT-65



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



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From the President

Rick, K8CAV
PCARS President



And one thing leads to another

Contesting and awards are something pretty new to me in Amateur Radio. Before my recent foray into those worlds I mainly enjoyed digital experimenting and digital rag chewing, along with various aspects of emergency communications to include MARS, RACES and ARES®.

Chuck, W8PT is our club's contesting guru. He's been there from the very beginning of PCARS and has succeeded in not only furthering participation in various contests by PCARS, but was responsible for overseeing the equipping and building of a first-rate radio room and antenna complex to make PCARS contesting very competitive as witness by the many contest awards we have hanging on the walls. Somewhere along the way Chuck gave me a hard-enough kick to get me to give it a try and lo and behold I found out that it was FUN! At about the same time Parky, KB8UUZ's many missives on different awards being very attainable for us even with modest stations began to rub off on me.

One afternoon I was traversing 17 meters and heard a KH6 (Hawaii) station on the air and was able to contact him. Knowing that this was one of the more difficult states to contact from Ohio I rushed off my QSL card and started thinking that maybe the Worked-All-States award might be something I could really do with my very modest station. Little did I know there are states even harder to get than Hawaii and after only 27 states I got a bit discouraged. Enter again Parky who espoused the thought that working some contests is also a great way to find those harder to get states and sure enough, in one afternoon I picked up North Dakota and South Dakota so I'm back on the road to completing my WAS award. The point of that whole monolog is to say that if we open up to trying just one new thing in Amateur Radio, it can lead to lots more things that you may never have considered before. Was taking the first step difficult? Yeah, I'll be the first to admit that when Chuck forced me into the chair at one of the contests I was thinking no way in heck I'm gonna be able to do this. But I was able to, did it pretty well for a novice, and enjoyed it, too.

There are two things I'd like you all to consider and those are that trying new things can be a blast, and that we have some great folks like Chuck, Parky, and many others willing to stand behind you to help get you started along the path to a new phase of Amateur Radio enjoyment. Just come on out to one of the many PCARS events and open your mind to just trying it. Only once. You might just find you really enjoy it!

And, speaking of PCARS events, Antenna Day is literally right around the corner, taking place on Saturday May 6th at the Freedom Township park. Our Field Day Chairman, Chuck, W8PT has a lot of good information elsewhere in this newsletter but it's really important for you to show up and support this event because it's our dress rehearsal for Field Day. Also, check out our Vice President, Jim, AC8NT's column for all of the upcoming events in May.

As always, the most important part of PCARS is **YOU**, our members and I hope we'll see you at as many of our events as possible because you make our club the enjoyable organization it is.



From the Vice President

Jim, AC8NT
PCARS Vice President



Busy month again. We have planned and scheduled a couple build events. The first is another balun build (May 13th) where we will be building 1:1 or 4:1 baluns for 100 watts or less. We will be building a Raspberry Pi based JT-65 receiver (June 10th). This is a very cool project. You will need to provide your own Pi and it must be a Pi 3. This is the most recent model and the only model that supports the necessary calculation hardware for the latest software. These build days and all our Field Day activities will make for a busy summer.

I have also been working on two projects that have both been hard work and fun at the same time and I need your help with both.

\$100 HF station

I have embarked on a quest to see if it is possible to build a complete HF SSB station including transceiver, antenna and all required accessories for about \$100. Why you might ask. I work with school kids from middle school to college and have generated a lot of interest in ham radio. When I make a presentation I spend time talking about VHF including the use of repeaters, WSPR radio as a show of just how little power is required for communications, contesting as a growing sport and community service. A lot of these students complete the Tech class and end up buying a Baofeng for under \$50. This does get them on the air but the thrill does not last long. They want to move to HF. The problem is that the perceived cost of entry to move to HF is high. Note I said “perceived” cost. I want to offer a solution that will get them on to the HF bands for about \$100. If this scenario sounds familiar, we have the same problem with a lot of the hams we train and have in the club.

To date I have been experimenting with the use of the BitX40 kit and one of my spiral dipole antennas to operate on 40 meters. Results were good and the cost ended up at \$95 including a little coax feed line. I have also been modifying the BitX40 to run on 20 meters. This allows the use of a short standard dipole antenna reducing cost and effort a little more. These two solutions are very attractive. Several club members have built WSPR stations for about \$150 which includes transmitter and receiver. WSPR is another solution.

What I need from all of you are ideas and options. The Bitx40 kit is a very easy to assemble kit and the antennas are easy to build. Building the kits and antennas enhances the activity and provides some application of the theory they are learning. So kits and small building projects are welcome to the list of solutions. Please provide some ideas and suggestions.

Partnering with other organizations

I am also Vice Chair of the Akron/Canton section of IEEE (Institute of Electrical and Electronic Engineers). We recently held a regional meeting where we discussed working with other organizations to interest more students in studying engineering and computer science. Suggestions including representation at Makerfaires and running workshops with students at the middle and high school levels. Something our club has been working on. IEEE offers not only an opportunity to reach more students, but it may offer some money to offset costs.

What I need to know is: Are any of you interested in helping with this effort? You don't need to be an engineer to help. I just need hams that are passionate about and want to help increase the interest in our hobby. Let me know if you are interested in helping. Activities will include Makerfaires and student build activities. Some of the kits used in the build activities will be provided by the IEEE. This could be a lot of fun and help bring more young people into our hobby.

Schedule of Events

On the calendar for upcoming meetings and activities are:

- May 6th - Antenna Day - Full Rehearsal day for Field Day 2017 - Freedom Township Park - 10am
- May 8th - PCARS Meeting - 7 pm - ARES® Presentation
- May 13th - BALUN Build Day at the club site - 9 am to noon
- June 7th - VE Testing at club site - end of General Upgrade Class - 7 pm - walk-ins welcome
- June 10th - JT-65 Build Day at the club site - 9 am to noon
- June 24-25th - Field Day 2017 - Freedom Township Park

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



- First Tuesday - **Digital** - Moderator: K8CAV
Second Tuesday - **QRP/CW** - Moderator: WB8LCD
Third Tuesday - **Antenna** - Moderator: WA8AR
Fourth Tuesday - **DX & Contest** - Moderator: W8PT
Fifth Tuesday - **Linux for Hams** - Moderator: KB8AMZ
Fourth Thursday - **Net Night at the club site - 6:30 pm**



ARRL Legislation

**The work continues
— HR 555**

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



Michigan QSO Party



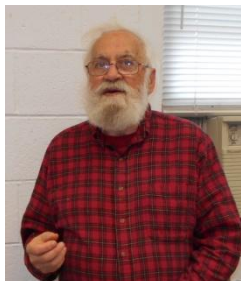
Chuck, W8PT



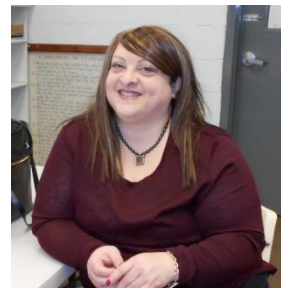
For those of you who are curious as to how PCARS did during the recent MiQP, weeeeIIIIIIIIII..... we didn't do as well as we had hoped. Propagation into our part of Ohio was - shall we say - not so good. Better put, **IT STUNK!!!**. We had heard stations from only 300 miles south of us giving sequential QSO numbers to Michigan stations that we could not hear, in the hundreds. We worked only 14 stations.



It was somewhat depressing, but getting on the air is always fun. When we weren't being frustrated by the signals apparently skipping over us, we were joking about it. So we did have fun and enjoyed the time together. And isn't that why we have a club? To get together and have fun, play radio and enjoy some camaraderie?



We heard 14 stations and we worked 14 stations. I can't fault anyone for not doing a good job. We may review our participation in this event in the future. But for now, we will take what we can get.



Happy Birthday PCARS Members

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

WA8US

John Brock

K8BBE

Chuck Girt

WA8TSI

Rick Tenan

W8Ezt

Frank Tompkins

K8KSU

Melanie Hardman

W8BGE

Robert Berry

AC8RH

Gene Bunner

K8NYM

Wes Ferrell



Hamvention® 2017 'Same Friends - New Home'

Tom, KB8UUZ

Okay - Here I go again on my yearly soap box article about going to the Dayton Hamvention®. Yes, gas prices are still up, yes, it takes more than a few hours to get there, yes I know you're busy.... **BUT** Just think of it, hams from around the world can only *dream* about going to Hamvention®, and for us, it's practically in our back yard.



And - hopefully you have heard about this - The Hamvention® will be in a new venue - The Greene County Fairgrounds in Xenia, OH !!! The theme is *Same Friends, New Home*. I for one am so happy that the Hara Arena is no longer an option. I will not miss the mold dropping from the ceilings, the exploding sewage system the restrooms that are terrible, the old wooden floors - enough of that! The Dayton ARA volunteers have been working hard every day for months to get things all set for this year's Hamvention®. Will everything be perfect? No. Will it be a fun weekend? YES. More info:

hamvention.org



Even if you only go for one day - **GO!!!!** Even if you don't spend any money - **GO!!!!** Visit all the dealers, see what's new and what's coming out soon. **Check out the great ARRL display area and meet some of the ARRL HQ personnel.** There are plenty of *free* forums. Just to be there and walk around seeing all the ham gear and hams from around the world is worth the trip.

Who knows, you just may bump into a foreign ham that you made a DX contact with. The outdoor flea market will really be something to



Hamvention Facts

Serving Size 3 days

Amount Per Serving

Miles walked 42 Cash spent \$800

% Daily Value*

Boat anchors	99%
Collins	80%
Hallicrafters	59%
Chicken Band	0%
Useless trinkets	62%
Handheld Rigs	35%
Yaesu, Kenwood, Icom	35%
Alinco, Chinese & FRS	22%
High school band booster beer	100%
Greasy burgers	9% • Intermod
Hot dogs	10% • Fun & friends

*Percent Daily Values are based on a typical ham.
Your daily values may be higher or lower depending on your personality and if you are a tool or not.

see - jammed packed with just about everything you can imagine. This will be one heck of a flea market. Chances are you will never see a larger one! Many bargains to be had, and don't hesitate to haggle the price a bit lower.

Take a camera and take pictures of everything and everybody! Years from now, you'll be able to brag that you were at the **FIRST** Hamvention® that was held at the Greene County Fairgrounds

So, check it out - Friday the 19th, Saturday the 20th and Sunday the 21st in May - the **ONLY** place to be is at the Dayton Hamvention® at the Greene County Fairgrounds in Xenia, Ohio. **Hope to see you there!**

ARRL Hamvention® 2017 Forum Topics



When Hamvention® opens on May 19 for the first time in Xenia, Ohio, the focus of ARRL activities will be the ARRL EXPO in Building 2 of the Greene County Fairgrounds and Expo Center. ARRL will sponsor a slate of forums on all 3 days of Hamvention.

To highlight the new location, some fresh ARRL forum topics will accompany the old standards. Space is limited at some forum venues.

ARRL has reached out to the Maker movement, and “**Ham Radio Makers and Hackers**” will kick off the League’s forum schedule on Friday at 10:30 AM (Room 4). The ham radio community has always promoted the DIY (do it yourself) approach — what some hams call “homebrewing.” The panelists at this hour-long session will share experiences about how ham radio is finding kinship with the new generation of creators, makers, hackers, and innovators. Panelists will include ARRL author Glen Popiel, KW5GP, and ARRL Education & Technology Program instructor Tommy Gober, N5DUX. Also on the panel is Cara Kouse, Innovation and Makerspace Manager at the Xenia Community Library, who will talk about the new Makerspace opened at the library early this year.

Also new at Hamvention 2017 will be the “**HamSCI, the Ham Radio Science Citizen Investigation**” (<http://www.hamsci.org/>) forum, Saturday at 9:15 AM (Room 4). Nathaniel Frissell, W2NAF, will answer the question, “What is HamSCI?” A group of panelists will share information about professional research programs supported by radio amateurs. Presentations also will address investigations related to the total solar eclipse in August, and Frissell will discuss “The Solar Eclipse QSO Party: Ionospheric Sounding Using Ham Radio QSOs.”



One popular forum at the Orlando HamCation focused on the (CARI) (<https://www.facebook.com/groups/ARRLCARI/>). Andy Milluzzi, KK4LWR, will bring the discussion to Hamvention on Saturday at 12:30 PM (Room 4). A growing number of campus radio clubs and student radio amateurs have begun to share ideas and suggestions on the CARI Facebook page to rekindle interest in ham radio on college and university campuses, bringing students together, and developing career connections. Students, alumni, and faculty will present at the forum. The ARRL Collegiate Amateur Radio Initiative is sponsored in part by the W1YSM Snyder Family Collegiate Amateur Radio Endowment.

“**Learning. Discovery. And FUN!**” on Sunday at 9:15 AM (Room 2). ARRL Teachers Institute (<http://www.arrl.org/teachers-institute-on-wireless-technology>) on Wireless Technology instructor Tommy Gober, N5DUX, will introduce teachers to a variety of tools, as well as a curriculum to take back to their classrooms. Topics include an introduction to basic electronics, the science of radio, space technology, and satellite communication, as well as weather science, introduction to microcontrollers, and basic robotics. Gober will share strategies to motivate students to learn and to inspire interest in STEM (science, technology, engineering, and mathematics) fields.



ARRL Great Lakes Division Director Dale Williams, WA8EFK, will moderate the **ARRL Member Forum**

on Saturday at 11:45 AM (Room 1). It's an opportunity for ARRL members and prospective members to hear from local and national ARRL officials on key areas of membership interest. Learn how ARRL supports dozens of ways to get involved, get active, and get on the air.

The wide-ranging **"Public Service Communications Panel Discussion"** on Saturday at 1:45 PM (Room 4) will offer a chance to hear from representatives of organizations active during disasters and emergencies. ARRL Emergency Preparedness Manager Mike Corey, KI1U, will moderate. There will be presentations by representatives of the VoIP WX Net and VoIP Hurricane Net; the Military Auxiliary Radio System (MARS); the Hurricane Watch Net (HWN); the Salvation Army Team Emergency Radio Network (SATERN), and the US Department of Homeland Security's SHARES network.

At **"Ham Radio and the Law: Antenna Permits and Problems"** on Friday at 2:45 PM (Room 2), attorney Fred H. Hopengarten, K1VR — the author of *Antenna Zoning for the Radio Amateur* — will head a panel of Amateur Radio attorneys in a discussion of legal issues to include avoiding restrictive covenants, tower permits, and recent court rulings on the PRB-1 limited federal preemption. The forum will present the latest information on H.R. 555, the Amateur Radio Parity Act of 2017.



"ARRL National Parks on the Air Recap" on Sunday at 10:30 AM (Room 2) will review the highly successful NPOTA (<http://www.arrl.org/npota>) activity that commemorated the centennial of the US National Park Service last year, inspiring more than 1 million contacts during park activations. ARRL Radiosport Manager Norm Fusaro, W3IZ, and ARRL Media and Public Relations Manager Sean Kutzko, KX9X, will moderate.

A complete schedule of Hamvention forums is available on the Hamvention website:
<http://hamvention.org/wp-content/uploads/2017/03/Forum-Charts-2017.pdf>

Ohio Columnist Alerts Locals to Upcoming Ham "Invasion"

Fairborn Daily Herald columnist Bill Taylor, N8YGS, is giving readers in the Fairborn, Ohio area a heads up regarding the thousands of radio amateurs soon to be descending upon Xenia, Ohio for Hamvention® -- being held there for the first time, May 19-21, at the Greene County Fairgrounds and Expo Center.

"It seems to me that folks hereabouts should be forewarned that in a few weeks we will be subjected to what might be called an 'invasion,'" Taylor wrote. "Oh, it won't be by zombies, aliens from outer space, or locusts -- nope, it's going to be by very friendly 'hams,' known more formally as 'Amateur Radio operators.'"



The Greene County Fairgrounds and Expo Center

A member of ARRL and of the Hamvention-sponsoring Dayton Amateur Radio Association

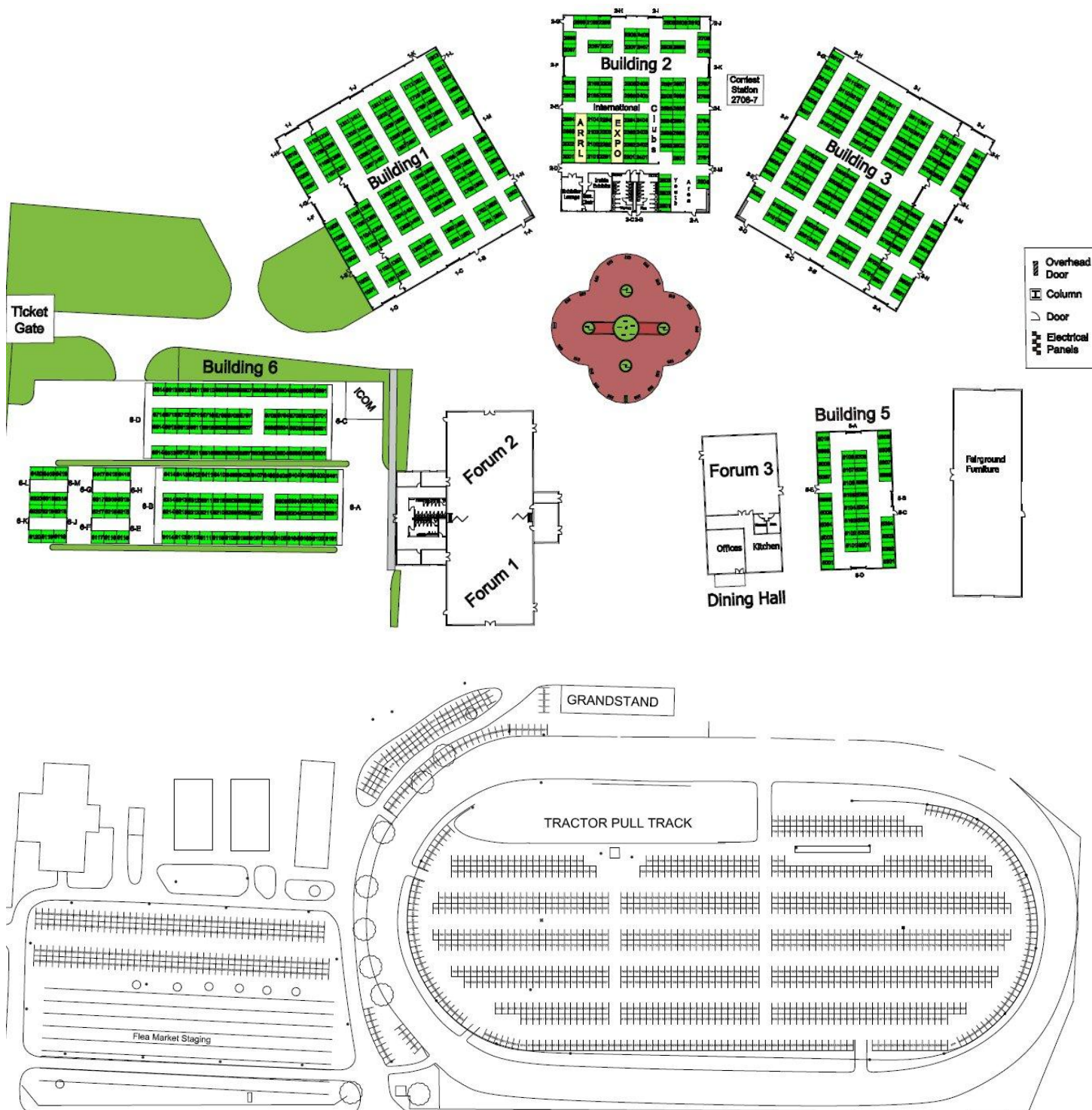
(DARA), Taylor pointed out that past Hamvention attendance has been in the 25,000 range. "As for attendance this year, that's a bit of a question because of the change in venue," Taylor wrote, "but we can still expect thousands of folks visiting our county, many for the first time."

Taylor told ARRL that he's planning "at least a couple more columns about Hamvention and Amateur Radio, including one next week." He said his editor is "very supportive" of Hamvention and plans to devote as many column inches as possible to the event.

Hamvention® 2017 - Maps

Here is the layout for Hamvention® 2017 - the Main Buildings are shown. Below that, the outdoor flea market spaces are shown. There will be a tone of stuff to see and do this year at the Greene County Fairgrounds.

For more information, go to: www.HAMVENTION.org



Tech Tip - Those Crazy USB Cables and Chargers

Jim, AC8NT



Ok, I admit it. I am kind of a neat freak. I tend to like to reduce the amount of “stuff” in my lab area. So I was excited when some of my new tools (toys) arrived using “wall warts” with USB connectors as chargers for their internal batteries. They also, like many of the newest instruments, are software based and often need a software “tune-up” or “upgrade”. This is the obvious reason the suppliers chose using a USB connection as both a charge and data port. To accommodate these devices, I added a 3 amp 5V supply to my Anderson Powerpole distribution panel along with 3 USB type “A” female connectors. Now, I could put some of those bricks in a storage box. At least that’s what I thought. When I plugged a USB cable between the distribution box and my new tool, the tool would not charge. Now we had to find out “WHY?”.

Time to learn the mysteries of those charging devices and cables. The engineers who designed these systems wanted to make sure they were safe, could charge in the minimum amount of time and often wanted them to operate while charging. This can be a complicated set of requirements. The basic steps required to make sure things work are as follows:

1. Make sure the correct charger and cable are being used with the equipment.
2. Determine if the connection is between the charger and the equipment or between a computer and the equipment.

The first system I checked turned out to be similar to what Apple has been using for its iPhone and iPad systems. My equipment was a Time Domain Reflectometer (TDR). The cable supplied is a USB A to proprietary connector. They also provided a proprietary power brick. The only cable you can use is theirs assuring the correct connection is made. The issue is determining if the connection is between their brick or a computer. The solution is to have the power brick set the D+ and D- signals to known levels that are not normally possible when these lines are used for a data connection. Figure 1 shows the pinout of a USB “A” connector and the circuit used to set the data levels. The levels shown are for Apple. For my TDR the levels were reversed.

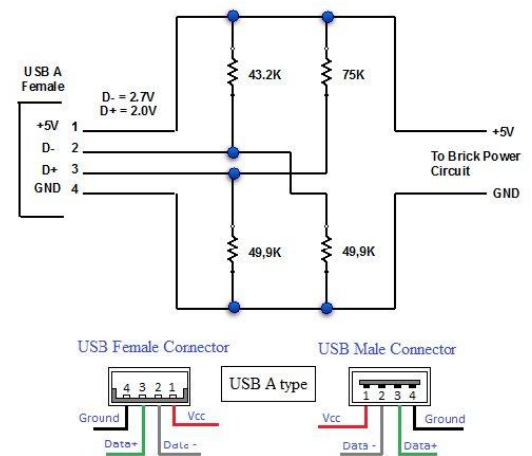


Figure 1

If the levels indicate the cable is connected to their brick the charging circuit in the equipment sets the current draw to a higher level, often 1 amp. If the levels are not detected, charging is not allowed unless turned on by software located in the attached computer. As with most devices attaching the device to a computer causes software to be launched to support the device. This software can control the charging which usually sets charging current to draw the maximum specified by a USB 2.0 specification, about 500 ma. If you connect the cable to any other brick, charging is not implemented. Amazing what you can do with a few resistors and “a little code”.

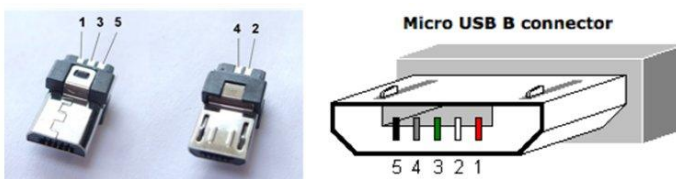


Figure 2

The second common setup is a power brick equipped with a cable terminated with a USB “Mini B” or “Micro B” connector. Both Mini and Micro connectors are wired similarly, so this discussion will apply to both connector types. This type of connection can be frustrating. The charging configuration can’t always be replaced using a standard 5V brick and a USB A to Mini B cable. **Figure 2** shows the pinout for a Mini B connector.

You will note the pin called ID. This pin was added to the specification to allow cables to be identified. How they are identified varies greatly. First note that if you buy a standard A to Mini B cable there are two common wiring systems. They are shown in **Figure 3**.

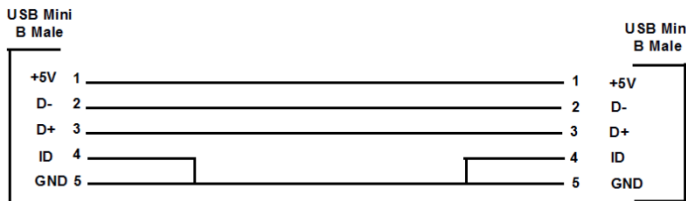


Figure 4

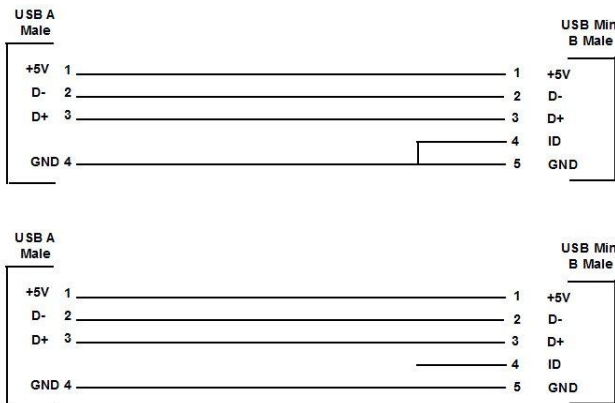


Figure 3

The only way to tell which cable you have is to check the Mini B end for continuity between pins 4 and 5. Another anomaly found in cables wired with Mini B connectors is the wiring of a Mini B to Mini B cable. Most are wired as shown in **Figure 4**. Some without connection at either end to pin 4. I have found no cables with Mini B connectors that have used 5 wires in the cable.

Again the only way to tell what is going on is to check continuity between pins 4 and 5 on both ends of the cable. Here is an example of a more sophisticated form of identification. It is shown in **Figure 5**. Remember the USB A end of this cable may be replaced by a direct connection to the brick.

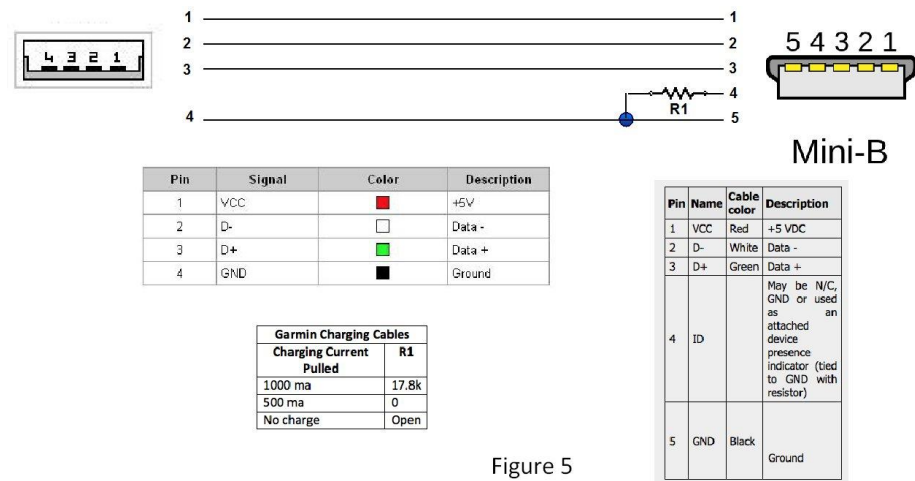


Figure 5

The example shown is for a Garmin GPS unit. It is also found on my LCR meter. The resistor tells the equipment whether charge at 1 amp, the USB 2.0 standard 500 ma., or not to charge at all. Most often the end of the cable noted above terminated with a USB A connector is directly connected to the power brick. Again it is a good idea to check the resistance between pins 4 and 5 at the equipment end of the cable to determine if a resistor is being used. My LCR meter has a charging cable with one end connected directly to the

power brick and the other end wired as shown with a 17.8k resistor. The cable they provided to connect the meter to my computer was wired as shown in **Figure 4**. If you use a standard A to mini B cable, your unit will not charge at all unless connected to a computer equipped with the manufacturer’s software.

Using this information, you can create cables to properly charge your instruments from the USB connectors on you power distribution panel or using one power brick in your go-kit. The rest of your bricks can be put in a storage box. (You know hams never throw away anything.)

You can use the following steps to analyze your charging equipment to determine what you need to make to replacement circuits:

1. Buy USB connector breakout boards to make you measurements easier. These can be found at Amazon, Adafruit or Sparkfun and look similar to that shown in **Figure 6**.
2. Plug in the original charger using the cable that came with it. At the equipment end, using the correct breakout board, measure the voltages on the data pins. If these voltages are a steady value between ground and 5V, record the voltages and develop voltage dividers to create these voltages like shown in **Figure 1**. If your charging circuit has a removable cable you will need to determine if the dividers are in the charging brick or the cable.
3. If a Mini B connector is at the equipment end, with the charger unplugged measure the resistance between pins 4 and 5. Record this value.
4. These measurements will provide the information necessary to duplicate the charging equipment.



Figure 6



Figure 7

Another very useful tool is a USB voltage/current monitor, like the one shown in **Figure 7**. This will make it easy to determine charging currents and also provides some interesting extras. The one shown provides two USB type A outputs. The first one connects all four wires through. The second connector has a circuit similar to that in **Figure 1**. The input data signals are not passed through although it appears to the attached device that is connected to a charging block. You can connect your iPhone or iPad to this connector and it will charge. The input data signals are isolated from your device. This is often called a charging condom. It protects you from having data stolen while using public power stations like those found in airports.

Using this information, you can create cables to properly charge your instruments from the USB connectors on you power distribution panel or using one power brick in your go-kit. The rest of your bricks can be put in a storage box. (*You know hams never throw away anything.*)

PCARS Patches & Stickers

New PCARS logo patches (**iron on**) & stickers (stick on) are now

available!! Put the patch on your hat, your shirt, your jacket and show off that PCARS logo!! The patch is about 3". The embroidery on the white patch is in Red, Black and Blue. Cost for a patch is only \$2.00 each and

can be obtained at any

PCARS meeting. There are 2 types of stickers available - a 4" x 6" oval and a 3" x 10" bumper sticker. Stickers are \$1 each. Show your pride in PCARS - Wear a patch, use the stickers! See the club

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



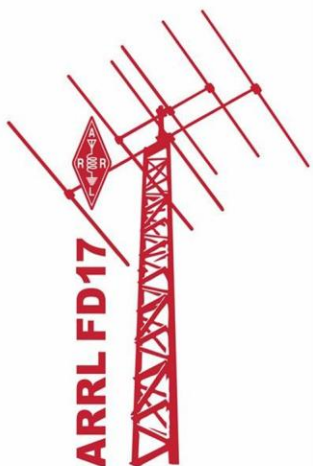
Antenna Day and Field Day 2017 Plans

Chuck, W8PT
Field Day Chairman



Field Day is only two months away. Boy, where is the time going? Your Field Day Staff is hard at work at making this the best yet. In fact, **Antenna Day**, where we do a full on test run, takes place in about one week. (Saturday, May 6 - starting at 10:00 am)

All of our stations will be up and running and since there are at least four state QSO Parties taking place that weekend, it will be a great test to make sure that everything is working properly. Why not come out and be part of the fun?! **Better yet, take a look at our Field Day information on the PCARS website - click on the link that takes you to operations schedule and see where you might want to help by contacting one of the station captains to volunteer.**



One of the things we do each year is to solicit donations for our event. That means we would greatly appreciate help in the way of snacks, soda, and water. And as always, cash donations will be much appreciated.

Don't forget, we will be selling tickets this year as in years past for the Saturday evening meal and Sunday morning breakfast. PCARS members will be provided a ticket free of charge for their Saturday evening meal. If you plan to bring a guest, the cost for that ticket will be \$5.00. Everyone will have to buy a breakfast ticket for Sunday morning. The cost for this is \$1.00. We will also have a Sunday brunch this year as requested. Plans for that are still being worked out.

I hope to see as many PCARS members as possible sign the attendance sheet this year. We promise to supply as much fun as you can handle.

Upcoming Event

ARRL Field Day

June 24-25, 2017

**The most popular on-the-air
operating event in Amateur radio**

**K8BF Will be on
the air !**



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 3rd - August 5th - October 7th - December 2nd
Plus: June 7th at 7 pm at the club site (end of General Upgrade class)
June 24th at 4 pm at the PCARS Field Day site
 Walk ins always welcome



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.



Contest Calendar

May 2017		
Contest Name	Click for more info	Date - Times
7th Call Area QSO Party	Click here	1300Z, May 6 to 0700Z, May 7
Indiana QSO Party	Click here	1500Z, May 6 to 0300Z, May 7
Delaware QSO Party	Click here	1700Z, May 6 to 2359Z, May 7
New England QSO Party	Click here	2000Z, May 6 to 0500Z, May 7 and 1300Z-2400Z, May 7
Arkansas QSO Party	Click here	1400Z, May 13 to 0200Z, May 14
MARAC County Hunters Contest	Click here	1400Z-2400Z, May 13 and 1400Z-2400Z, May 14
CQ WW WPX Contest, CW	Click here	0000Z, May 27 to 2359Z, May 28

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

JT-65 is FUN

Deron, N8XTH



I love DXing, contesting, new states on new bands, new counties and new grid squares and I am not much of a rag chewer. I do not have a ton of time to operate and I certainly do not have a high-end station. Enter Jim, AC8NT, who opened my eyes to a new digital mode, JT-65. It sounded like it would be fun to try, and isn't that what ham radio is all about? It is very addicting, trust me.

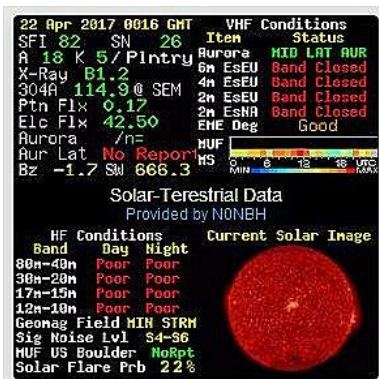


Figure 1

JT-65 works very well in less than optimal conditions. Contacts can be made via this mode when almost any other mode such a contact would be virtually impossible. 30 watts is considered high power with JT-65 and it works great when propagation or some other antennas may not work so great. On a night where band conditions were terrible [Figure 1] you can see that on 20 watts, propagation was not an issue as all of those stations copied my CQ on 30 meters. [Figure 2] One negative is that a QSO with JT-65 is very limited and structured. If you like to rag chew, this is not a mode for you.

QSOs take place in alternating one minute exchanges. For example, if CQ is called on an odd numbered minute, then all of the responses to the calling station will take place on an even numbered minute, and the originating station will transmit only on odd numbered minutes. Now is a good time to mention that your PC time must be absolutely synced with the atomic clock in order for this mode to work. Generally, I sync my computer with an internet time server every time I boot it up but I also downloaded an additional program to force my older version of windows to sync every 3 hours.

Here is the basic JT-65 QSO format. I am using club member, Daryl (WX1DER) in Little Rock as my example since he's in a different grid square than us here in NE Ohio. Our QSO started out at 0000 UTC with Daryl calling CQ.

**0000 CQ WX1DER EM34
0001 WX1DER N8XTH EN91
0002 N8XTH WX1DER -08
0003 WX1DER N8XTH R-16
0004 N8XTH WX1DER RRR
0005 WX1DER N8XTH 73**

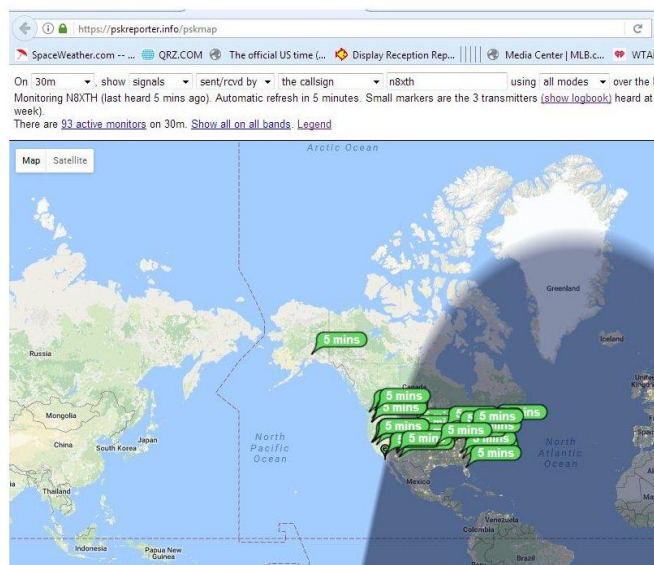


Figure 2

Looking above, at 0000 UTC you can see that WX1DER was calling CQ with his Maidenhead Grid square as a part of the exchange. His transmission lasted slightly over 47 seconds. At about 48 seconds after 0000 his

transmission ends (you will notice the entire frequency will go silent as all transmitting stations do the same thing) and my computer and software will begin decoding what it has received. Once I see someone calling CQ, I can respond. You have about 5-10 seconds to decide if you want to respond to someone. At 0001 my radio and PC begin responding to his CQ with my call sign and my grid square. My transmission will last about 47 seconds, too. Assuming WX1DER copies my response, at 0002 he responds to my transmission with a signal report (-08). The software automatically completes the signal report in decibels. Once that one minute window has passed, I respond at 0003 UTC to WX1DER with R-16, signifying “roger” and his report in decibels (-16). After my transmission period has passed, WX1DER, responded at 0004 UTC with “RRR” which stands for... you guessed it, “Roger, Roger, Roger.” At 0005 I respond with RRR, RR 73 or just 73. (Different JT-65 programs provide different options. I prefer just ending the QSO with 73.)

As you can see, there isn’t any discussion and it certainly isn’t quick but it’s very effective. It took about 6 minutes to exchange call signs, grid squares and signal reports. My station right now consists of an IC-706, a home brew sound card interface, a G5RV at 40 feet, a 160 meter half wave dipole at 70 feet and a beverage on ground antenna for 40, 80 and 160 meters. No beam, no tower, no amp and no super receiver with great filters. With that setup, one of my first JT-65 contacts was RI1AND in Antarctica on 20 meters with 20 watts.

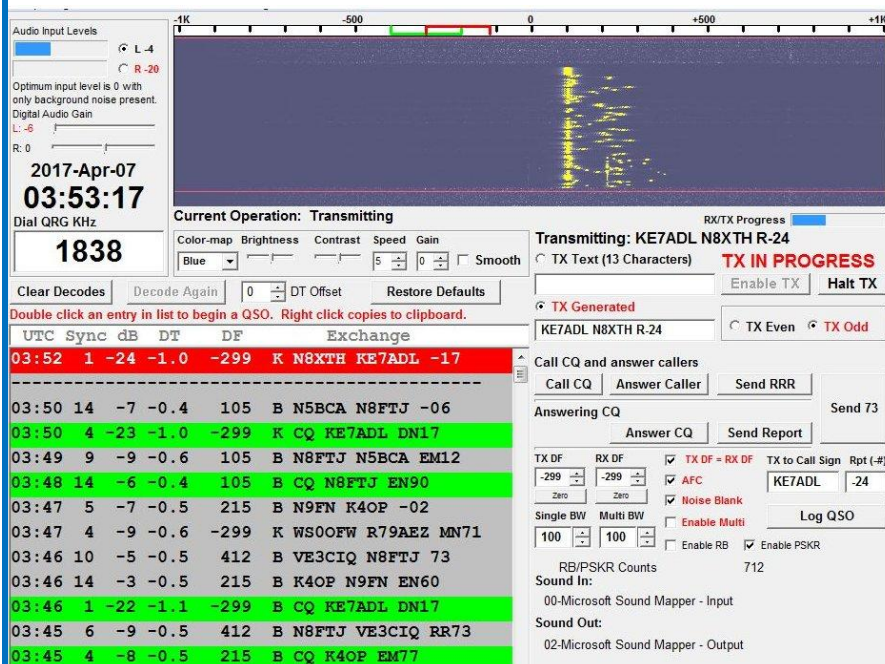
JT-65 can be found on the following frequencies (all bands use upper side band):

1.838, 3.576, 7.076, 14.076, 10.139, 18.102, 21.076, 24.920, 28.076 MHz

There are multiple JT-65 programs out there. All of them look somewhat similar and work somewhat similar but I decided on trying JT-65-HF (<http://jt65-hf.com>) and within a few minutes of downloading it, I was ready to go. There are more versatile programs out there with many more features but JT-65-HF is the most user friendly program to get started with.

JT-65-HF is **free**, very easy to setup and use. Much of the data is color coded. Calls highlighted in green are

stations calling CQ. Grey is an ongoing QSO that you are (likely) not a part of. Red is a station responding to you. Here is a QSO that I had from start to finish in the program. In [QSO-1] you can see KE7ADL calling CQ in green. I responded to him with my grid square and his first response to me is in red with my signal report. In [QSO-2] you can see him respond with RRR and you can see that I am transmitting my 73s to him as the QSO concludes.



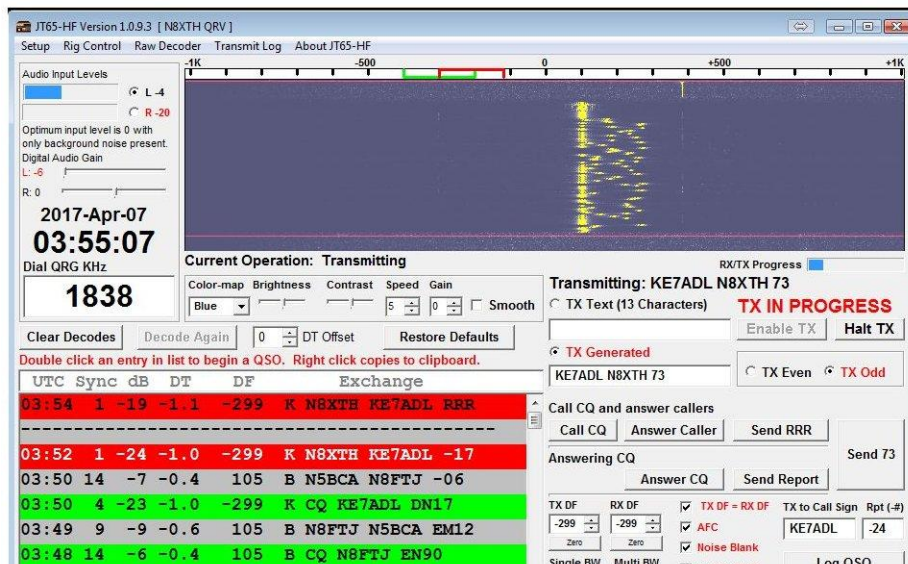
QSO-1

decode all of the transmissions. At 0351 my transmission began, automatically sending him my call and grid square. You can see what you are transmitting and its status just below the waterfall. After my transmission is over, his response to me began at 0352. When his response was done and decoded, I clicked on his response

The beauty of the JT-65-HF software is that it knows how to respond. When I saw KE7ADL calling CQ I responded by double clicking my mouse on the green line. Most likely I clicked it at 53-55 seconds past 0350 UTC as he was transmitting from 03:50:00 to 03:50:48 and the software takes a few seconds to

and the program sent my response which included his signal report. We later finished the QSO up with RRR and 73.

The QSO box has the following information: in each column: UTC is the time of the sent transmission. Sync shows the strength of the sync signal that was transmitted. The higher number the better signal. The next column is the received signal report in decibels. DT is the amount of deviation between the clocks of the transmitting station and your station. DF refers to the waterfall and shows your deviation above or below the center frequency in hertz. Much like PSK-35, the waterfall shows where the signal is. Our QSO was -299 Hz below the center. You can see our location on the waterfall with the red/green indicator at the top of the waterfall. The letters K and B in the column before the call signs indicate the type of decoding necessary to decode the transmission. “B” is a less complex decode than “K”. A call with “B” decoding will be an easier QSO than one using the “K” form of decoding. The software determines the decoding method based on signal strength, errors, noise, and a few other factors.



QSO-2

Sometimes people will use the “TX Text” box to send a custom message. Custom text is limited to 13 characters. If a station responds to you using the custom text, their response usually will not show up highlighted in red. You can tell it is for you by looking at the DF. If the DF is the same as your current frequency (spot in the waterfall) most likely the message was meant for you.

The software will log your QSOs for you. Once your QSO is complete, if you click on Log QSO on the right of the window it will add all QSO data to an ADIF file in the software directory that can be easily imported into the logging program of your choice.

Calling CQ works the same way but, obviously, you transmit first by clicking on the Call CQ and Enable TX buttons.

In next month’s newsletter I will explain more about JT-65 including more intricacies and some other features and software available including ways to interface the software directly with your logging software and a different form of DX spotting using the map I showed above in **Figure 2**. While I’m no expert, feel free to contact me at N8XTH@portcars.org.



Jim, KC8PD

**Radio Officer, Portage County
Communications Unit/RACES**



Did you ever find yourself at some new venue (shopping mall, sports stadium, movie theater, etc.) and start wondering things like: where are the nearest exits, do I remember where I parked my car, if I am here with family members how do we find each other if our party, especially the kids, get separated, are there any things that may create a chance of the kids getting hurt?

Without realizing it you were trying to develop a sense of what is known as situational awareness. Situational awareness is nothing more than identifying those hazards that exist or may develop in the immediate or nearby area that present a chance of harm to you and others. Once you have identified the hazard you can then assess the level of risk that it presents, that is, how serious the harm it may cause versus the chance or likelihood that the harm may actually occur.

The moment you step out the door in the morning you face a whole new set of hazards as opposed to all of those (kids toys on the floor, spilled liquids and sharp objects in the kitchen) you faced in the house. Sure, there is a hazard that a meteorite may come flying out of the sky and obliterate you. But the chances of that are infinitesimally small. So we don't worry much about meteorites. However, the moment you get in your car or truck or on your bike or motorcycle you now are faced with constantly reassessing the very real hazards and risks as you move down the road.

These include both the hazards you face as well as the ones that you cause. Those include other traffic, especially the crazy speeders on the interstate, pedestrians, traffic signals and signs, spilled beverages in your car, etc. The risks go on and on and you have to constantly update your inventory of them.

Situational awareness is especially important to ham radio operators when they assist with radio communications during incidents or planned events. Before you even go out in the field you should have been briefed by your leaders on known hazards you will face during your shift. This can be as simple as "The weather will continue to be very hot and humid so make sure try to operate from a shaded area as well as staying well hydrated."

The moment you arrive at your assigned location you should begin identifying any obvious hazard. For example, during a 10k race or marathon where will the runners be coming from and headed to? How will vehicular traffic be maintained or controlled? Where is a safe location for you to operate from but that will still allow you access to race or water stop crews? Does that location provide safe and solid footing or are there hoses or cables you need to cross over.

Clearly, the lists of potential hazards can stack up pretty quickly but you also want to make sure you are assigning them the appropriate level of risk. If you are relieved by another volunteer, always be sure to brief her or him on the risks you have identified.

Hazards and the degree of risk can increase substantially during a real world incident. Again, be sure you are adequately briefed and also be assure to advise your supervisor of any hazards that you ID that may also present a risk to others.

The point of all this is to spend some time every day during your everyday activities consciously identifying hazards and determining if they present a risk to you and others. After a while this will be such a routine activity that you will not even to think twice about doing it during a real world incident, exercise or event. Situational awareness can save your life.

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



Where is That Link I Saw.....?



Tom, KB8UUZ

I spend too much time on the internet looking for all kinds of stuff. When I find an interesting site, I usually bookmark it for later reference. Sometimes the book mark is in the right area, most time it's lost somewhere. I might eventually find it again, but meanwhile I'm off looking at other stuff. Sound familiar?

Well just recently I ran across a GOLD MINE and want to share it with you - *you're gonna love this !*

Anthony, K8ZT - one of our neighbor hams, a member of the Cuyahoga Falls Amateur Radio Club (CFARC), is VERY much into Amateur Radio and contributes countless hours to the hobby. Anthony has a *really* nice web site that is chock full of great information and a super place to go for links to all things ham radio (and more).

<http://www.k8zt.com/dx>



Anthony - K8ZT

This is one site on the internet that you will visit, bookmark, and return to A LOT. Anthony has set up a number of link pages in various categories. News - Maps & Charts - Contesting & Calendars - DX and DX News - Logging and QSLs - Propagation & Spotting - Morse Code - Digital - VHF, UHF, FM Repeaters - QRP Operation - Space & Satellites, and more. Go there <http://www.k8zt.com/dx> and

check it out - like I said earlier - *You're gonna Love it!*

Each link is like a banner ad and makes finding what you want really easy and quick. One click and off you go to that linked site you were looking for. It's that easy. Drop a comment and thank Anthony on his web site.

Charlie the Tuner's HF High-Lites

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



It seems that the only band that is really performing is 20 meters. There have been some great openings on 20 in the last several days except for a glitch caused by a solar event. But all of Europe, the UK, Scandinavia, the mid-East and parts of Africa have been heard and worked in NE Ohio. And during one evening, ZLs and VKs also made an appearance. Let's see what might be in store for May.

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

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

3W, VIETNAM. Peter, DF7DQ, will be active as 3W9DQ from Vietnam between May 1-10th. Activity will be on various HF bands. QSL via his home call sign or ClubLog.

4U1UN REACTIVATION COTINUES. It was reported this past week on QRZNOW.com: United Nations Headquarters Amateur Radio club station 4U1UN (<http://www.4u1un.net>) representatives are still in talks with the UN Department of Public Information with an eye toward permanently reactivating the station. Although within the geographical confines of New York City, 4U1UN qualifies as a separate DXCC entity. "Hopefully we'll have an opportunity to plead our case to the new administration as well. Keep your fingers crossed," said a post this week on the club's Facebook page (<https://www.facebook.com/United-Nations-Amateur-Radio-Club-4U1UN-169357566427247/timeline>). "4U1UN might be back on the air soon!" Earlier in March, the club alerted its Facebook page visitors to reports that a pirate identifying as 4U1UN was operating on RTTY. The station was on the air for real in 2015. To commemorate the UN's 70th anniversary that fall, 4U1UN operated as 4U70UN from a station set up at a ground-level garden area within the UN Headquarters complex.

D4, CAPE VERDE. Harald, DF2WO, will be active as D44TWO from Praia, Santiago Island (AF-005) between May 3rd and June 8th. Activity is holiday style on 40-10 m using CW, SSB and the Digital modes. He states that he works mostly on the Digital modes (PSK31, JT65 and RTTY) and slow CW. Equipment is a FT-450D into a home-made HEX BEAM and a dipole for 40 m. QSL via M0OXO (OQRS available). ADDED NOTE: Harald announced the following DXpedition for 2017: Oct (TBA) -- He returns to Ouagadougou, Burkina Faso, active as XT2AW Nov 15-30th -- He returns to Kigali, Rwanda, to be active as 9X2AW

E3, ERITREA. Zorro, JH1AJT, will once again visit Eritrea to participate in Eritrean Independence Ceremony in May. The dates will between May 19-29th. On this trip the following operators will be with him: Franz/DJ9ZB, Champ/E21EIC and Dima/RA9USU. Activity will be on 160-10 meters using CW, SSB and RTTY. Call signs to be used are E31AA and E39DI. During this time Zorro will also be active from Dahlak Island (AF-038) using the call sign E39DI for a few days mainly on 160-40 meters. QSL both call signs via JH1AJT.

E5, SOUTH COOK ISLANDS. Operators Bruce/AD7MM (E51BAS) and Doug/W6HB (E51DLD) should still be active from Rarotonga Island (OC-013) until May 12th. Activity will be holiday style on 160-10 meters, and operating from E51AND and E51KC QTHs (also possibly from E51JD, E51BQ and E51CG QTHs). QSL via their home call signs direct (see QRZ.com).

ED9/EG9, CEUTA AND MELILLA. Look for a team of 10 operators from the "Tortugas CW Group" to be active as EG9TOR from Melilla between May 18-22nd. The team will also be active as ED9T during the King Of Spain CW 2017 Contest (May 21-22nd). Activity will be mainly on CW, between May 18-19th, before the contest, but they will also be on SSB and the Digital modes, on all HF bands. QSL via EA4PN, ClubLog OQRS (direct and Bureau), LoTW or eQSL. More details available at QRZ.com.

EU-008. Members of the Camb-Hams will once again be active as GS3PYE/P, but this time from **Islay Island** between May 6-12th. The Camb-Hams have been activating the Scottish Isles each year since 2008. As in the past, ten or more operators will be active on all bands and many modes from 4m to 80m, 2m & 70cm for Satellites and 2m & 23cm for EME. The HF bands will be covered by four simultaneous stations while the 6m & 4m stations will have a great take-off towards the UK and Europe. All stations will be able to run at the full UK power limit. EME operations will use 150W to 55 elements on 23cm and 400W to 17 elements on 2m, primarily on JT65, but also available for CW skeds - if your station is big enough. Satellite operations on 2m & 70cm will use X-Quad antennas and a fully automatic Az/El tracking system. Activity is planned on AO-7 (mode B), VO-52, FO-29, SO-50 & AO-73. All the up-to-date plans and progress will be on www.dx.camb-hams.com. Most importantly, this is a group of good friends doing what they enjoy, so please give them a call and enjoy the trip with them. Active on the major social networks before, during and after the trip, you can check on progress and interact with the operators via their blog www.dx.camb-hams.com or through Twitter, Facebook facebook.com/CambHams and YouTube youtube.com/CambHams. Please check their Web page for details on how to arrange skeds on the more challenging bands, modes, VHF and EME. All links are available via: <http://dx.camb-hams.com> QSL via OQRS (info on QRZ.com) or M0VFC direct or via bureau.

HC8, GALAPAGOS ISLANDS (Update). Tim, LW9EOC, will be active as HC8/LW9EOC from Isabela island, Galapagos Islands (SA-004), between May 15-29th. Activity will be on 160-6 meters, with a focus on 30/17/12m, using CW, SSB and RTTY. QSL via his home call sign, direct or LoTW.

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

OJ0, MARKET REEF. Pasi, OH3WS, will once again be active as OJ0W from Market Reef (EU-053) between May 6-7th. Activity will be on 20-6 meters using CW and SSB. Pasi will try 60m on both CW and SSB, listen on 5354 kHz. QSL via his home call sign.

S7, SEYCHELLES. Ivan, LZ1PJ, will be active as S79J from the Lemongrass Lodge on Mahe Island (AF-024) between May 2-10th. Activity will be holiday style on various HF bands on CW only using an Icom IC-706, LDG ATU and simple antennas (G5RV and/or DunaX multiband vertical). He will also give out SKCC QSOs. QSL via his home call sign, direct, by the Bureau and possibly LoTW.

OC-098, North Cook Island, Cezar, VE3LYC, has announced that he will be active as E51LYC from Pukapuka Atoll (Danger Islands), North Cooks Island, between May 9-23. This IOTA group has not been activated for more than 22 years. More details will be forthcoming and a Web site is coming.

V5, NAMIBIA. Stefan, HB9JAB, will be active as V51/HB9JAB from Namibia until May 8th. Activity will be holiday style on the HF bands using a Yaesu FT-891 HF transceiver and ATAS Antenna installed on the bush camper. QSL via eQSL or LoTW.

XV9, VIETNAM. Jesus, JP7MBO, will be active as XV9G from Ho Chi Minh City until May 9th. He states

that he will be active on 20 meters during the daytime and 40 meters during the night time and if the band is open, 15 meters. Operations will be mostly CW and SSB occasionally.

That's it for this Newsletter. I can't repeat it enough times so I will once again say, "Get on the air and work some DX". Don't let your rigs and antennas gather dust. **Until next month, vry 73.**

Hamfest Calendar

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

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

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

PCARS Thursday Net Control

Tom, WB8LCD
Net Control Coordinator

Thank you all for helping with this! Anytime you are unable to take the net, please give me as much advance warning as possible! **Check out the new receiver located in Sugar Bush Knolls - using a PL tone of 118.8.** The Rootstown receiver still uses the 110.9 PL tone.

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



May	
4	K8IV
11	WB8LCD
18	N8RLG
25	K8CAV

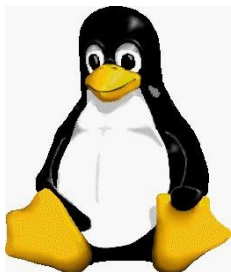
June	
1	N8QE
8	AC8NT
15	KB8UHN
22	KC8PD
29	KB8UUZ

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!

For those of you making the trek to the Dayton Hamvention® - Check-In via Echo Link !

Terry, KB8AMZ

Our next special interest group meeting is 30 May 2017. We will be discussing our plan to give a presentation at a future club meeting. Additionally we'll be discussing future projects such as Raspberry Pi installations, configuring our Pi's for Amateur Radio use and other projects.



If you haven't signed up for the Linux SIG newsletter by Ron Herring - W7HD. I suggest you get to it. I can't thank Parky enough for introducing me to him. Not only does his club have a group like ours but Ron has a wealth of information about the Linux operating system, Linux scripts, C programming, and useful Linux applications for Amateur Radio. Send Ron a request to be put on the list. That is all you have to do. The Linux SIG email address is: linuxsig@comcast.net



If you have questions prior to the meeting or any other time you may contact Mike Ryan - KB8TUY or me - KB8AMZ at our PCARS email address. 73, see you at the next meeting.

Linux Users skeptical about SourceForge downloads?

You may have reason, from whatever Linux Forum you frequent, to be skeptical about downloading anything related to Amateur Radio from SourceForge due to some developers hiding 'adware' or 'malware' into their uploaded applications. I have been.

SourceForge has a new owner as January 2016. Why am I now bringing this up over a year later? It has taken time to rectify past practices, and well, I just received this information from the SourceForge.net Update newsletter. This came about from an article about CodePlex, another open source venue, closing down and the SourceForge new owner putting a call out to developers to come to SourceForge. If you're interested you read the message from Logan Abbott, President of SourceForge.

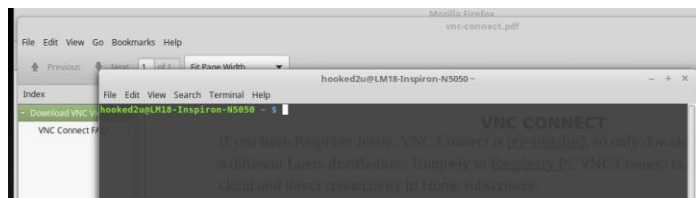
URL: <https://sourceforge.net/blog/codeplex-shuts-down-sourceforge-is-here/>

Linux for Hams SiG - Info Tip #1

Newbie Guide - This downloadable .pdf file comes from the Linux Mint web site. It gives the commands a newbie needs to learn, complete with descriptions.

(Most of the commands are universal or similar to other Linux distros.) These commands are for command line using the terminal application. Most newbies have never have never had the occasion to use the CLI (command line interface), having only used a GUI (graphical user interface). The CLI may seem scary compared to the GUI. You can assemble tools to do anything you want, transparently, automated in the background (cron). The goal is to be lazy. Why should you do anything you can have your computer do for you? But you ask, 'Why should I learn CLI? The GUI is easier and I already do most of what I need in the GUI? Okay, some tasks are accomplished in the GUI like word processing, spreadsheet, and video editing. Then some tasks are better suited to the CLI like data manipulation for reporting and file management. Check it out:

https://groups.io/g/linuxsig/topic/newbie_guide/4659729?p=,,,20,0,0,0::recentpostdate%2Fsticky,,,20,2,0,4659729 Of special interest to new newbies might be section 7.3, Basic Operations.



Use of Remotely Operated Stations

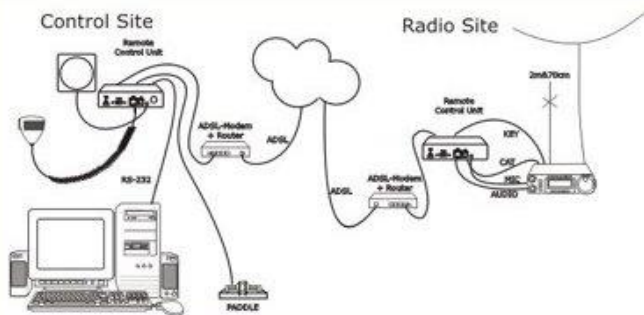
An email came in from Dale Williams, WA8EFK, the Great Lakes Division Director concerning ethical issues regarding the use of remote stations when applying for DXCC credit. Stan Arnett AC8W is the Great Lakes Division Representative to the ARRL DX Advisory Committee (DXAC). Stan is asking for comments and suggestions from DXers and interested parties in the Great Lakes Division, as the DXAC considers an important question.

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From Stan:

The DX Advisory Committee has been tasked with examining the DXCC ethics rule, specifically with regard to use of remotely operated stations. I am seeking input from DXers from the Great Lakes Division.

I have been told that "there is well known use of US and other remotes by foreign operators who were not properly identifying and were claiming contacts made via US-based remote stations for credit on contacts that were impossible given propagation issues particularly on 6, 2, and 160 meters. There was repeated mention of a perceived problem with "propagation shopping" by the use of remote stations such that again, contacts were being claimed on bands and conditions which were virtually impossible given propagation limitations at the time. There were concerns that



there are stateside stations who work contests while using their own station while simultaneously controlling a remote station, and "breaking the pileup" on 160 meters for example using the remote station located (let's say, in the Northeast) while the actual station working the contest is working from a location in the Midwest and using the remote station to break through the pile-up and then the actual Midwest location to complete the contact and make the report, and other similar concerns."

+++++

Our specific tasking is:

"Please consider potential ethical issues with regard to legal, remote-controlled operations, and how these operations comport with DXCC rules. Then, please consider DXCC Rule 11"

11. Issues concerning remotely controlled operating and DXCC are best dealt with by each individual carefully considering the ethical limits that he/she will accept for his/her DXCC and other operating awards. As the premier operating award in Amateur Radio, DXCC draws intense scrutiny from its participants. As DX chasers climb up the Standings there will be increased attention given to these achievements and the owner of these achievements needs to be comfortable standing behind his/her award and numbers. Peer attention has always been a part of awards chasing, of course, but in these times with so many awards and so many players, it is more important than ever to “play the game” ethically.

+++++

"Technological advances, while welcome, also add to the difficulty in defining rules for DXCC, but the intent of the rules is what is important. It is never OK to remotely use a station outside of the "home DXCC

entity” to add to the home–entity DXCC totals – just as it is never OK for you to ask someone else at another station in another place to make QSOs for you. Remotely controlled stations must be properly licensed if they are to count for DXCC. It will continue to be up to the operator to decide what types of legal remote control operating he/she will use (if any) to contribute to an operating award."

If you have suggestions or comments relative to the ethics issue and the use of remote control I would appreciate your input. Please provide any recommendations for changes to the rule, which would improve the rule and the way participants use remotely controlled stations. Please restrict comments to ethical issues only.

If you feel no change is needed that is a valid response.

Deadline for comments to me is Monday, May 15. I will compile synthesize responses for the DXAC.

Stan Arnett II, AC8W
Great Lakes Representative DXAC
ac8w@comcast.net

Paper Chase

Joe, W8KNO

When you think of San Francisco, there are five things that immediately come to mind: (1) the Golden Gate Bridge, (2) the Cable Cars, (3) Alcatraz, (4) Mare Island and (5) Lombard Street. For an eleven day period during May, there will be a Special Event Station, N6L, on the air commemorating the **95th Anniversary of Lombard Street**.



Lombard Street was constructed in 1922 and is known for the one-block on Russian Hill between Hyde and Leavenworth Streets, where eight sharp turns are said to make it **"The Most Crooked Street" in the World**.



The Special Event will take place between 00:00 May 19th till 23:59 May 29th. Listen for it on or near 3.815, 7.365, 14.265 and 21.265 MHz.

To obtain a QSL Card, mail your card and a SASE to: Will Pattullo, N6L - 161 Presidential Circle - Healdsburg, CA 95448

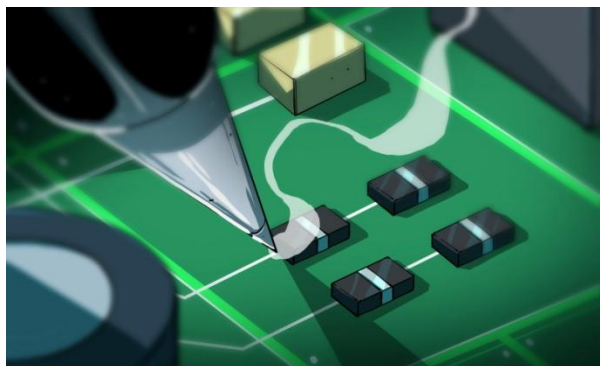


What the Flux: How Does Solder Work ?

Dan Maloney

I've been soldering for a long time, and I take pride in my abilities. I won't say that I'm the best solder-slinger around, but I'm pretty good at this essential shop skill — at least for through-hole and “traditional” soldering; I haven't had much practice at SMD stuff yet. I'm confident that I could make a good, strong, stable

joint that's both electrically and mechanically sound in just about any kind of wire or conductor.

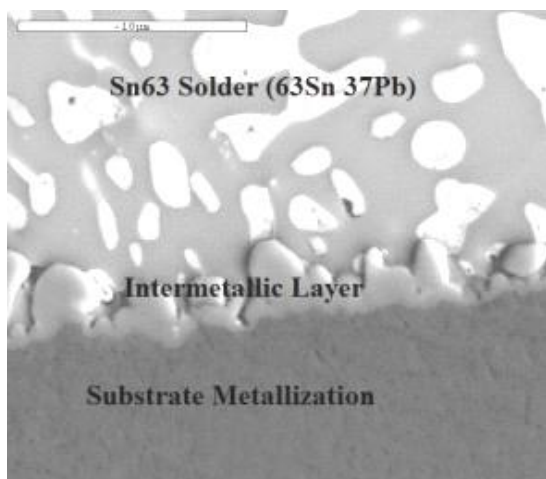


But like some many of us, I learned soldering as a practical skill; put solder and iron together, observe results, repeat the stuff that works and avoid the stuff that doesn't. Seems like adding a little inside information might help me improve my skills, so I set about learning what's going on mechanically and chemically inside a solder joint.

Solder != Metal Glue

It should come as little surprise that like other metal working methods, soldering has a strict definition. Soldering is the joining of metals by melting a filler metal into the joint. Unlike in welding, only the filler metal — the solder — melts. The metals being joined usually have a much higher melting point than the solder. Brazing is similar to soldering in this regard; even though the filler metal in brazing melts at a much higher temperature than solder, the joined metals still don't melt.

The metallurgical details of solder itself could take volumes to discuss completely, but for our purposes it's pretty simple stuff. Solder is just an alloy that has been engineered to melt at a specific temperature. For electronics uses, the king of solders for years was an alloy of 60% tin and 40% lead. New regulations in response to environmental concerns have led to the development of different lead-free alloys, but whatever the composition, solder's job is pretty simple. Solder needs to melt at a predictable temperature and maintain its mechanical and electrical properties when it solidifies. In other words, solder needs to be strong enough to physically hold a joint together without introducing any undesirable electrical properties to the joint.



Intermetallic bonding. Source: Indium Corp

Solder needs to do more than just melt and solidify, though. People seem to think of solder as some kind of “metal glue” — apply it as a liquid and let it become solid to lock a joint together. That's only part of the picture, though. For a soldered joint to be electrically and mechanically sound, the solder needs to wet the metals to be joined. In the context of soldering, wetting is the process whereby the molten solder partially dissolves into the copper base metal, forming a region that's part solder and part copper. This creates intermetallic bonding and it's the key to soldering. In most solders, the molten tin is the primary solvent that

dissolves into the copper substrate and forms the intermetallic bond that electrically and mechanically stabilizes the joint.

Intermetallics are necessary to a good solder joint, but like so many things, too much of a good thing can be a bad thing. Intermetallics tend to be brittle, so if the intermetallic layer is too thick, the joint can be mechanically weak. There can also be voids within the intermetallic layer that add to mechanical instability.

Keeping It Clean

We all know that flux is critical to quality solder joints. But what exactly is flux and why do solder manufacturers go to the trouble of stuffing it into the core of solder wire?

The importance of flux is due to its ability to fight the mortal enemy of solder: metal oxides. Metal oxides are no good for solder joints — solder will not adequately wet a joint when there's a metal oxide coating. Fluxes are designed to remove metal oxides, and to do so while the joint is being soldered. Pre-cleaning the metals doesn't cut it, by the time the solder flows atmospheric oxygen has rebuilt the metal oxide layer enough to spoil solder wetting.

Electronic solder usually has a flux made of rosin. Rosin is a natural product derived from pine trees, notably the loblolly and longleaf pines for US-made rosin. It has the advantage of being more or less inert at room temperature but highly acidic when liquified, and has a melting point slightly lower than solder. The rosin core of electronic solder will therefore melt before the solder, flowing into and around the joint. The acidic liquid reacts with metal oxides, exposing clean metal for the solder to wet into. The acidic liquid flux converts the metal oxides to metal salts and water, which are typically locked up in the flux when it solidifies. The reaction products are generally harmless at that point, but some processes still require the used-up flux to be removed.

Of course there's a lot more to soldering than this, but these are the basics about what's going on inside that blob of solder at the end of your iron.

From: <http://hackaday.com/2017/02/23/what-the-flux-how-does-solder-work-anyway/>



HACKADAY

Dan Maloney: Staff Writer - Hackaday. Dan has also been a generous contributor to the PCARS newsletter, **The RADIOGRAM**.

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. He also enjoys cosplaying with his children, although we doubt he'll ever admit to it.



A Special QSO & QSL I will Never Forget

Neil, N8IL

Once in a while you make a QSO that you'll never forget. Especially when that contact is a rare entity or well known person.

I did just that - made a contact with the world famous Monk Apollo, SV2ASP/A from Mount Athos. When I made the contact I sent off to hopefully get his QSL card. Much to my surprise, in the mail came an envelope with that prized QSL card. Monk Apollo also included some prayer cards as well.



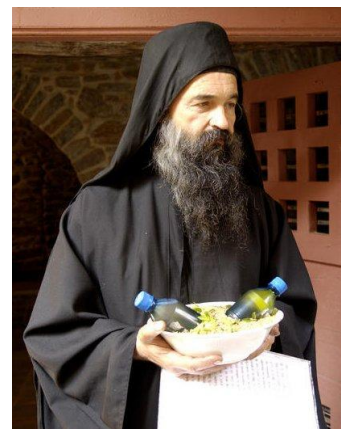
I was teary-eyed imaging Apollo preparing the card, signing two of the prayer cards, and sealing the envelope. What a blessing!

Editors note:

Mount Athos is the only place in the world to be populated exclusively by men: Orthodox Christian monks whose main aim is the glorification of the Trinitarian God and the fight against passions in the pursuit of Life Eternal, next to the throne of God.

Mount Athos' monastic government is democratic, and the new constitution (dating back to 1763) has been in effect in general lines up to date. Both Greek and non-Greek visitors are granted a 4-day permission of stay on the peninsula, which might nevertheless be extended under particular circumstances. By the unwritten law of hospitality, the monasteries provide visitors with free board and lodging. If one wishes, he might stay in one of the monasteries for longer periods, taking part to their daily routine and helping out in the various works.

Monk Apollo is member of the administrative council of the monastery ("The Assembly of the Elders"), and is ranked third after the Abbot.



More information and pictures can be found on QRZ.com - look up SV2ASP

Ramblings of an Unbridled Mind

Editor's Note: This was on the internet and I really cannot remember who or where....

- I found this timely, because today I was in a store that sells sunglasses, and only sunglasses. A young lady walks over to me and asks, "What brings you in today?" I looked at her, and said, "I'm interested in buying a refrigerator." She didn't quite know how to respond.
- Am I getting to be that age? I was thinking about how a status symbol of today is those cell phones that everyone has clipped onto their belt or purse. I can't afford one. So I'm wearing my garage door opener.
- I was thinking about old age and decided that old age is when you still have something on the ball, but you are just too tired to bounce it.
- When people see a cat's litter box they always say, "Oh, have you got a cat?" Just once I want to say, "No, it's for company!"
- Employment application blanks always ask who is to be called in case of an emergency. I think you should write, 'An ambulance.'
- The older you get the tougher it is to lose weight because by then your body and your fat have gotten to be really good friends.
- The easiest way to find something lost around the house is to buy a replacement.
- Did you ever notice: The Roman Numerals for forty (40) are XL.
- The sole purpose of a child's middle name is so he can tell when he's really in trouble.
- Did you ever notice: When you put the 2 words 'The' and 'IRS' together it spells 'Theirs...'
- Aging: Eventually you will reach a point when you stop lying about your age and start bragging about it.
- Some people try to turn back their "odometers." Not me. I want people to know 'why' I look this way. I've traveled a long way and some of the roads weren't paved.
- You know you are getting old when everything either dries up or leaks.
- Ah! Being young is beautiful but being old is comfortable.
- Lord, keep your arm around my shoulder and your hand over my mouth.



Great Lakes Division at HamCon 2017

The most exciting ham radio event to ever hit Michigan has been scheduled for October 7 & 8, 2017 at Michigan International Speedway (MIS) near Brooklyn, Michigan.

MIS is located in the vacation area of Southeastern Michigan known as the Irish Hills. The racetrack is the home of two NASCAR races each year (June & October) and other non-racing events and is near major highways and air transportation. The facility is comprised of 1400 acres in the rolling hills of SE Michigan.

The entire event will be held in the infield of the 2 mile track with lots of asphalt surfaces in the pit area. We have 22,500 square feet of indoor area for commercial vendors and a huge paved area for flea market space. All types of camping on site are available (tents to pop up campers to fifth wheels to full blown motor homes) with 24 hour security services. Medical personnel will be on site during the entire event for your safety. The facility will be open on Friday, Oct 6 for vendor load in and set up. Load out will be on Sunday, Oct 8) at the close of the event. All activity should be complete by 2100 Sunday evening.

Food services will be available and ticketing will be available electronically. There will be a complete complement of commercial vendors and many forums and workshops, including a ham in a day class taught by Dan, KB6NU. This class will be followed by a VE session which will be open to anyone interested in testing for a new license or an upgrade.

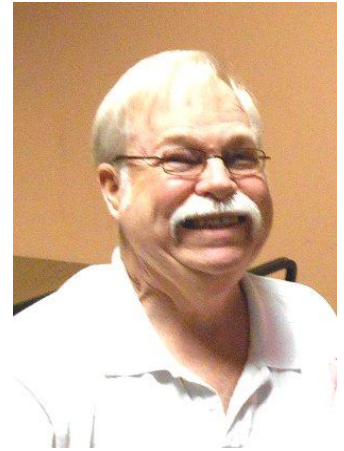
There are a great number of details that are still in the process of being developed. We are assembling our team to plan and operate the HamCon in conjunction with participating amateur radio clubs in roughly a 50 mile radius of the track. Our organization is the Great Lakes Amateur Radio Association, which will be a 501 (c) (3) non-profit corporation. Our website is www.glhamcon.org and we are on Facebook as Great Lakes Ham Convention and our Twitter ID is GLHamCon. All of our social media is in the process of being developed and will be fleshed out as things develop. Scott Westerman, W9WSW is heading up our Social Media efforts.

As you might imagine, planning an event of this size is an enormous undertaking. There is lots of work to be done and we are working very hard to make this the very best Ham Radio event ever.



Shack Shot - WA8TSI

Rick, WA8TSI



We moved into a downsized place in August of last year in preparation for retirement a few years down the road. The picture shows a work in progress at the new QTH. Of course, much to my dismay, other stuff has taken priority over ham radio! Lots of things needed done to make our new digs maintenance free. And that, in turn, takes time and money. I'd love to spend all of my time and money on ham radio, but life dictates other priorities.

Starting from left to right, you see my Drake "B" Line. These rigs are from the early '70s and still work like a dream. Some would argue that they are among the first of the "modern" Amateur Radio equipment, as they are tube/transistor hybrids. The R.L. Drake Company of Miamisburg, Ohio, built very good stuff. I was licensed in 1966, so I drooled over this kind of gear when it was new. I could never afford it. Last year I found out that the T-4XB and R-4B were available from a ham well-known for the care and condition of his equipment. I snagged them at a good price after years of regret for not buying them sooner. The microphone, AC-3 power

supply and MS-4 speaker came in the deal. This setup usually sits on or around 7.290 and in the AM mode.



Next is a Kenwood TS-820S. This 1980 vintage radio was recently acquired in a trade. I owned one many years

ago that was bought for me by my dad, as a gift. After years of use, a capacitor failed, caused a final tube to implode and the HV power supply took out most of the transceiver. Very sad. When I had a chance to pick up this 820 plus the outboard VFO and accessory speaker it was a no brainer. These are great transceivers with one of the best receivers of all its contemporaries. The 820 is complimented by a Kenwood desk mic. This is my general HF backup and "nostalgia" transceiver.

What can you say about an FT-990? This is one of the all-time best-rated Yaesu products. Reviews on eHam.net rate the quality as high as just about anything out there. It has no menus, is simple to use and understand (vital for me!), has digital filtering and adjustable bandpass with IF shift. The transmitter yields slightly better than 100 watts on 160 through 10 meters without any complaints. The MD-100 Yaesu mic produces excellent TX audio. This is my main HF rig and is usually connected to an antenna. Can you say 1990s, anyone?

Just above the 990, in the credenza, is a Lafayette Telsat SSB 75 CB rig. It's un-modified and used to belong to my father-in-law. This 40-plus year old 23 channel CB rig still works! It's another piece of nostalgia and a memorial item from my "other" dad.

Next to the CB is my Icom IC-706MkIIG. What a great all-band mobile rig! 160 through 70cm with 100W on six, 50 watts on 2 and 20 watts on 70cm. It's usually tied to my Diamond X200A dual-band vertical, but I can also switch it to an HF antenna. It serves as a very good dual-band VHF/UHF rig when not on HF. This rig was introduced in 2002 and represents my fourth decade of Ham equipment. Sadly, I have no desire to buy anything newer. In my anachronistic opinion, radios and computers should never have mated.

The shack is rounded out by my MFJ-969 Deluxe Versa-Tuner II and a vintage Heathkit HO-10 station monitor. It's handy to visually check my compression and audio amplitude to prevent over driving from my base microphones. Shack DC power is from an MFJ-4225MV switching power supply.

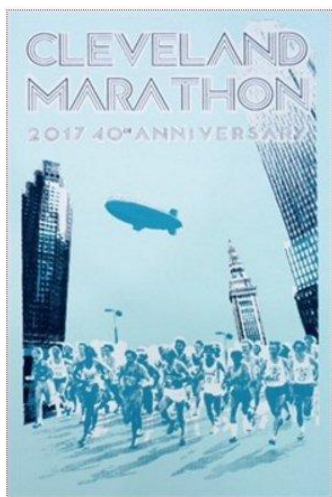
Antennas are a DXE 30VE-1 used as a non-resonant 40-10 ground-mounted vertical, an MFJ 40/20 trapped dipole and the aforementioned Diamond dual-bander. I have an A4S that will go up after the new tower; later this year or perhaps next spring. The shack is due to be walled-in and fitted with an entry door fairly soon.

Cleveland Marathon 2017 - Volunteer Hams Needed

(The following comes from Mat Nickoson, KC8NZJ via Jim, KC8PD)

I am writing to inform you that we need volunteers for the 2017 Cleveland Marathon. The marathon is Sunday May 21, but there is

also an 8k run on Saturday May 20 that we need volunteers for. Please sign up if you are available.



I expect to be very short handed because this is the same weekend as the Dayton Hamvention and I expect they will have higher than usual attendance because of the new venue.

To volunteer for the marathon on Sunday, please register here:
<http://goo.gl/forms/nKe6lDCmPE>

To volunteer for the 8k on Saturday, please email Carl, KB8VXE
carlged@gmail.com

If you have access to any email distribution lists, please forward this. We will need all the help we can get. The Cleveland Marathon takes a lot of people to staff properly.

If you have any questions, please feel free to contact me. info@ccares.us - Mathew Nickoson, KC8NZJ - Cuyahoga County Amateur Radio Emergency Service Coordinator



How Come I Don't Get PCARS E-Mails?

!!! Attention AOL and Yahoo Mail Users !!!

Over the past few months, our internet hosting provider has been experiencing email delivery issues with AOL. The issue at hand is AOL's heightened security with email relays, such as email that is coming from the various servers, but are identified as begin sent by PCARS.



We do not see any resolution in the future so we'd like to recommend that if you are using an AOL address as your registered email address for your Web Site registration, or your membership registration and notification, you might consider changing this address to something else so you can receive email from PCARS without interruption.

With the eventual integration of Yahoo and AOL, we may expect to see similar issues with the Yahoo mail servers.

ARRL Forwarding Service - If you are using the ARRL.NET forwarding service and that service forwards to an AOL or Yahoo account, you may still experience the issues that we are currently having. Hotmail and Gmail have not had any issues with email from PCARS.



One other thing to check is your Spam Folder or Deleted Folder. Some e-mail set-ups will accept PCARS e-mails, but puts them in the Spam or Deleted folders.

PCARS
Join Now
Discover the FUN



Mobile Radio Operating 1915 Style

Motorcycle enthusiasts tell us that the vehicle being used by the stalwart radio operator in this picture looks like an Indian *Big Twin* of about 1915, a model used by the Army throughout the First World War. It had a 60.88 cubic inch motor developing 15-18 horsepower.

Though basically intended to carry a passenger, the side car on this version has wireless gear installed. Some side cars were even equipped with machine guns. The configuration was left up to the army, which paid \$70.00 a copy for the bare vehicle.

The wireless apparatus on this motorcycle includes an early deForest Wireless Telephone Transmitter on the left side and a Type RJ-5 Audion Detector Box next to the spark key on the right side. This gear dates from about 1915 and was the earliest mobile wireless telephone outfit ever mounted on a motorcycle. It might be considered to be an early cell phone!

Swap-N-Shop

FOR SALE: Two 6 meter Squalo antennas with phasing harness - \$60. **Cushcraft 2 Meter 4-element Yagi** - \$35

Contact Tom, WB8LCD at WB8LCD@portcars.org [8/2/17]

FOR SALE: Yaesu FT-1000MP MkV w/matching SP-8 speaker. non smoker. Very clean - bright display and no scratches, etc. INRAD roofing filter, Full 200w output. MH-31B hand mike, orig manuals and marketing brochures. SN# 41640110 - \$1000.



Flex-5000A SDR. Very good Condition. Has second receiver and built in ATU. Hand mike included. \$1300.

Contact John, W8JJW at W8JJW@portcars.org or call for info/demo 330-842-3619 [8/2/17]



FOR SALE: Antennas, Tower, and Radios plus other stuff

Cushcraft Model XM-520 20 Meter 5 El Beam, \$100	Kenwood TH-22AT 2 Mtr HT \$25
Kenwood SP-430 Speaker \$25	Nye Viking MBI-001 Tuner \$100
Hy-Gain 6 Meter beam \$100	
KENT Iambic Paddle model TP-1B \$60	Code Key McElroy Streamkey Model 200 \$25
AEA model QT-1 Antenna tuner \$25	Radio Shack HTX-202 2 meter \$25
Astron Model RS-20M Power Supply \$50	Astron Model VS-35M Power Supply \$75
Pyramid PS-25 Power Supply model \$50	Swan SWR-1A SWR/ Pwr Meter \$10
Andrew F4PNMV2-HC N Male connector \$10ea	Hy-Gain HG-52SS tower, Good Condition \$500
Cushcraft X-7 Tri band beam \$300	Hy-Gain Ham IV Rotor \$400

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

Contact: Al, AB8AA at 330-207-3296 or ab8aa@arrl.net [7/2/17]

FREE TO A GOOD HOME: The following **QST Magazines** (good condition). Thanks to the magic of downloadable archives, I'm getting rid of a ton of old QST's that I've hung on to over the years.

June-Dec 1993 Jan-May 1996 All of the following years: 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015

Contact: Deron, N8XTH at N8XTH@portcars.org [6/2/17]

FOR SALE: AMERITRON AL-82 LINEAR AMPLIFIER - \$1,550.00 With a pair of Eimac 3-500Z Tubes, puts out 1500 W with 100 W drive. Good Condition, wired for 240V, 160 through 10 meters including WARC bands. Weighs 80 pounds. Prefer local sale, can deliver up to 35 miles.



YAESU FT-1000MP TRANSCEIVER - 100 W - AC VERSION - \$1,000.00 Excellent condition, Loaded with the following filters: Roofing Filter, 8,215 IF: 500Hz, 2.0 KHz, 2.4 KHz, 6.0 KHz 455 IF: 250Hz, 2.0KHz, 2.4 KHz, 6.0 KHz Includes manual and hand microphone.



TEN-TEC CORSAIR TRANSCEIVER - 100 W WITH MATCHING POWER SUPPLY / SPEAKER COMBINATION \$350.00 Good Condition - superlative full break-in CW performance - good starter radio. Has optional narrow SSB and CW filters. Includes manual. Will not sell transceiver without power supply.



HAMMARLUND HQ-129 VINTAGE RECEIVER - \$125.00 Good Condition commensurate with it's age, fully functional. Completely re-capped, re-tubed and re-aligned 10 years ago.



MFJ 259-B ANTENNA ANALYZER WITH CARRYING CASE- \$150.00 Good condition, fully functional, with manual. Covers 0.5 to 170 MHz in 6 ranges.



Contact: George, K3GP at K3GP@portcars.org
or call 330-829-9504 weekdays or weekends [7/2/17]

For Sale or Want Ad policy reminder: This is a PCARS members only benefit. Please don't ask to list items for a friend, relative or SK estate unless they are a member of PCARS. Requests come in from all over the USA (and beyond) to list items for sale or wanted items and we just cannot dedicate that much space to non-members. Listings are good for 3 months unless canceled or changed earlier. The date listed after the contact information tells you when the ad expires - example: [8/2/17] indicates the ad will run until August 2, 2017.

PCARS Ham 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 PCARS club station.

We have 58 PCARS member's ham plates now, **but we can use more.** Don't have ham radio call plates on your vehicle? Well for those of you in Ohio, you can get the plates sent to you by going to any License Bureau office and filling out the special plate registration form. Have a copy of your current FCC license when you apply. The official form to obtain your Ohio Amateur Radio license plates is on the [PCARS 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/>

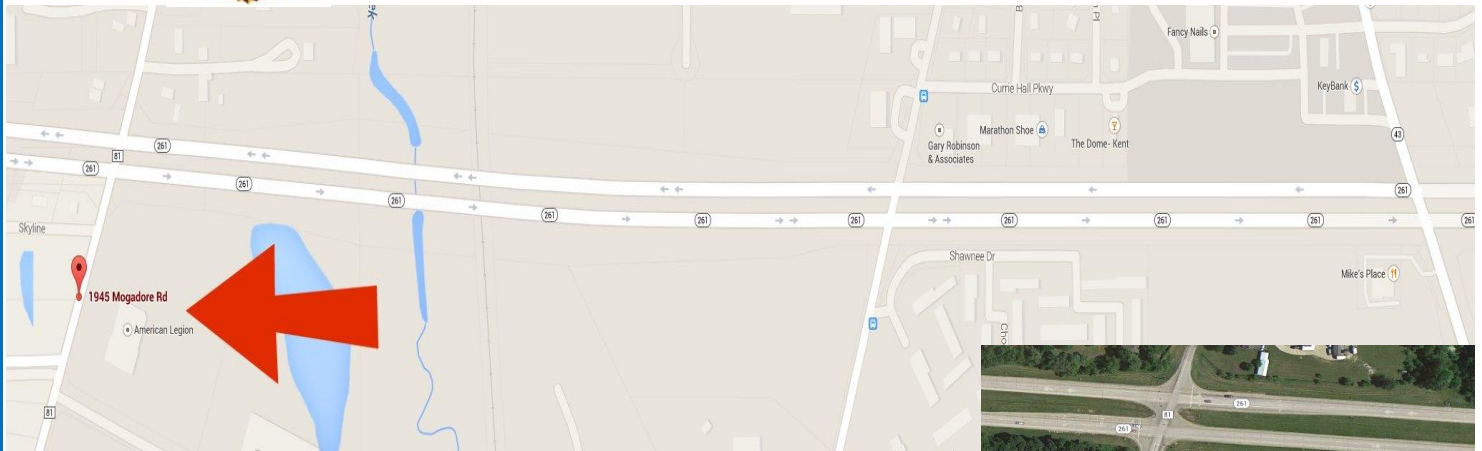


PCARS Meetings

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 PCARS Meeting in April







PCARS April 10, 2017

Important - This is Hamburger Month

May Is Hamburger Month

Where's the beef? There's plenty of it around all through Hamburger Month, along with buns, cheese, fries and pickles! While many other popular menu choices have a special day devoted to them, this fast food favorite gets a whole month of celebration.



Nobody seems to be certain when this meaty month was first launched. **However, it is sponsored by White**



Castle, the oldest hamburger chain in the US, and supported by other chains and independent burger bars. All kinds of special events are organized each year to mark the occasion, including burger tastings, food festivals, giveaways and even a burger battle between rival chefs in Riverwalk Fort Lauderdale.



The perfect way to celebrate Burger Month, though, is to throw your own party. There are many sizzling burger recipes to choose from, including healthy choices like turkey or veggie burgers (?) as well as the **classic beef version**, so get grilling now.

Thanks & 73



All of our members (and others) look forward to getting this newsletter every month, so keep sending those inputs! I'm sure PCARS is known as the **BIG FUN** amateur radio club with plenty of activities. So chip in and send your report in to keep this newsletter great all throughout the year.

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

K8CAV, AC8NT, KB8UUZ, W8PT, N8YGS, N8RLG, N8XTH, KC8PD, K8ZT, WB8LCD, KB8AMZ, AC8W, W8KNO, N8IL, WA8TSI, KC8NZJ, Dan Maloney, the ARRL, and the World-Wide Web.

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

Park, KB8UUZ
PCARS Newsletter Editor



Please reserve and pay for your
“2017 Hamvention” ride to Xenia, OH
Bus Trip ASAP.

Saturday May 20, 2017 CARS is
again sponsoring a Bus trip to the
“2017 Hamvention” 1st time now
located at the Green County
Fairgrounds, Xenia, OH.



Every amateur radio operator in the world probably dreams about going to the Hamvention (formerly Dayton Hamvention) at least once. Please join us in 2017, it is an incredible event in a new Venue and offers something for everyone.

The Bus trip will cost \$50.00 dollars per person, we will not stop for breakfast on the way down, but there may be a fast food stop on the way home. You are responsible for both your food and Hamvention tickets. Go to <http://www.hamvention.org/tickets.php> to order your tickets.

Stop 1: The 56 passenger bus will leave promptly at 5:00 am from the Kmart parking lot at the intersection of Engle and Bagley Roads, in Middleburg Heights, Engle Road is a 1/4 mile west of I-71, Kmart is behind the Gas station. Vehicles will be safe, there is security.

Stop 2: The bus will also pickup riders at I-71 & Rt 303 at the SE corner of the Kmart parking lot and will depart for Xenia at approximately 5:30 am.

When ordering tickets please tell us which stop you will be at.

Bus tickets must be purchased and paid for in advance.

If you have any questions please see Metro W8MET at a CARS meeting or call him at 216-520-1320. Checks must be made out to CARS and mailed to: Metro Sinko W8MET, 6511 Elmarge Dr., Independence, OH 44131 attn. Xenia bus

73, Metro, W8MET

Pioneer Amateur Radio Fellowship, Inc.



Hamvention 2017



Saturday, May 20, 2017 - 5:30 AM

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

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

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

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

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

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

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

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

Parking will be in the back of the church.

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

Transportation is being provided by the Crossroads Transportation Company.

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

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

Joy Spencer KA8TDF

2101 Bigelow St

Akron, OH 44314

Or call 330-745-5115

E-mail: KA8TDF@arrl.net

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

Location of Departure:**

Akron Baptist Temple, 2324 Manchester Road, Akron, Ohio 44314

Located on Rt. 93 just north of Rt. 224

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



Michigan International Speedway

Brooklyn, Michigan

Breaking News: ARRL President, Rick Roderick,

K5UR to attend Great Lakes HamCon!

Indoor Commercial Vendors

Huge Paved Flea Market

Free Parking in Infield

Unique Location

KB6NU's One-Day Tech Class

Food Concessions

Mobility Scooters Available

Forums

Workshops

Camping

Door Prizes

VE Testing

Fox Hunt

Two days of fun!

GLHamCon Online Apparel Store now open!!

<https://glhamcon.qbstores.com>

We will NOT run out of indoor space (adding however many event tents that it takes) and we have an unlimited paved area for Flea Market spaces. Of course, best spaces sell first!

www.glhamcon.org

Info@glhamcon.org

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.

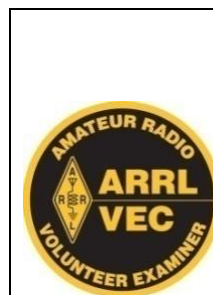
All are welcome to attend ~ Stop in and say hello!

PCARS uses the **K8IV** repeater: **146.895 MHz** PL 110.9 in Rootstown or 118.8 in Sugar Bush Knolls ~ EchoLink Node: K8SRR

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

Check PCARS out on the web: www.PORTCARS.ORG -or- www.K8BF.ORG

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



**PCARS
Active
Volunteer
Examiner
Team
Members**

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

THE RADIOGRAM

PCARS Incorporated
Nov. 1, 2005

First Meeting
Nov. 14, 2005



ARRL Affiliated
April 20, 2006



Special Service Club
March 22, 2010

The RADIOGRAM is the official **Award Winning** (ARRL Ohio Section Newsletter First Place Winner for 2012 AND 2013. Second Place in the Great Lakes Division for 2013. Second Place ARRL Ohio Section Newsletter for 2014. Third Place Winner in the Ohio Section 2015. Second Place Winner in the Ohio Section for 2016.) newsletter of the Portage County Amateur Radio Service, Inc. (PCARS) – copyright © 2017. Articles are the opinion of the authors and not necessarily those of PCARS. Or, better yet, let me express it this way: "These are my opinions and only my opinions, unless you share them as well, which would make them our opinions, but I am not of the opinion that I can express your opinion as my opinion without your prior expression of said opinion, and then my re-utterance of that opinion would, in my opinion, be foolish unless I were expressing agreement to your opinion, and then it wouldn't be my opinion but your opinion to which I only agree." **GO AHEAD - STEAL THIS NEWSLETTER! You have our permission to post, e-mail, copy, print, or reproduce this newsletter as many times as you like, but please do not modify what you use. If you use material in this newsletter, all we ask is that you give credit to PCARS along with the author of the article.** Caution - some of the articles in this newsletter maybe covered by copy write - please do not copy and use the ones that have by-line information unless you obtain permission from the original author. If you're not sure, drop an e-mail to KB8UUZ@portcars.org. 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 an **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

