



The **RADIOGRAM**

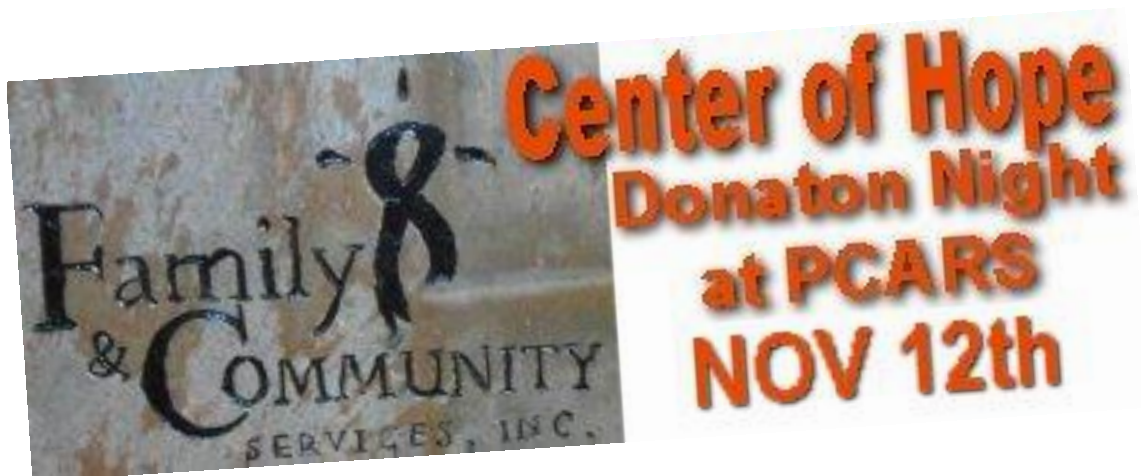
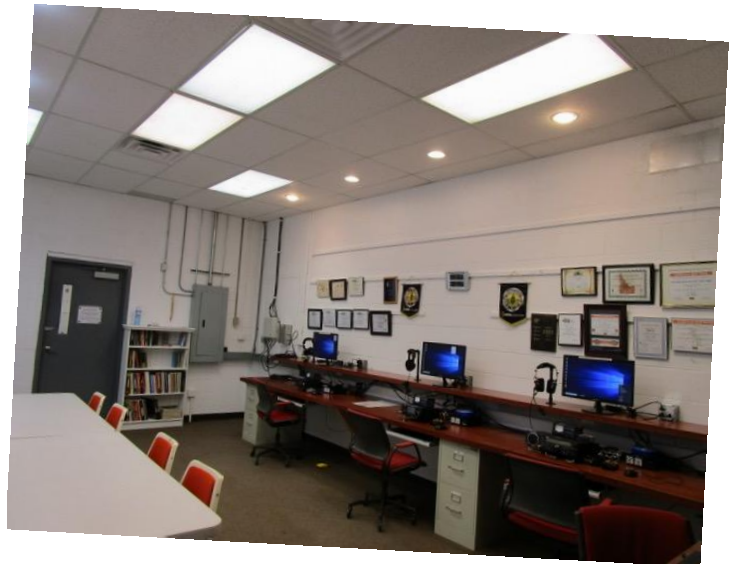
When All Else Fails ~ Amateur Radio Works

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

PCARS - the 2018 Hamvention® Club of The Year

November 2018 - Volume 13 Number 11

Club Site Renovations



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



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Volume 13 November 2018 Number 11

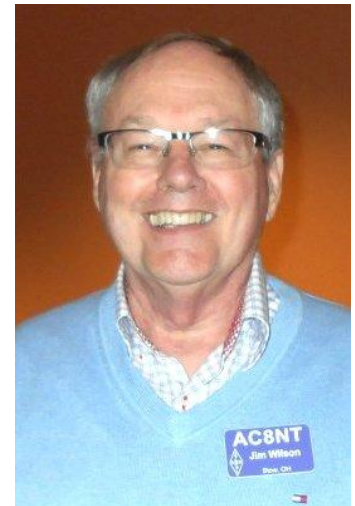


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From the President

Jim, AC8NT
PCARS President



It has been a great month. We have contested, cleaned up, added some great equipment to the club site, and helped our community. That's a pretty good month.

We held both the California and Arizona QSO parties at the club. Turnout was not what we would have liked, but we did make some QSOs. Chuck will cover the details elsewhere in the newsletter. Hopefully we will develop a larger group of testers for future events. I just started contesting this year and have found it a lot of fun. If you haven't contested, give it a try. If you want to learn more about contesting attend the DX/Contesting SIG the fourth Tuesday of each month. The next meeting will be November 27th at 7:00 PM.

A lot of club members have helped cleanup and fix up the club site. We have done a lot of work to improve our club. In summary, a little paint and cleaning out the stuff we didn't and won't need has made our site much better. I can't thank enough all of those that showed up for this work. It's now the responsibility of every club member to keep our club looking great. All it will require is a little routine cleanup and a little preventative maintenance.

We have received our three new ICOM 7300 radios. By the time you read this, they will be setup in the Operations Room. We will now only have two different rigs at our club, the IC-7300 and the TS-590. This should make it easier for our members to use our equipment. We are going to hold training sessions on the IC-7300 so club members can properly use the new gear. At the same time training will be available for the TS-590. The IC-7300 is a great rig that is very easy to learn to use. We will be announcing the training sessions dates and times so be on the lookout and come to one of the sessions.

As a side note the night we finished the ceiling tiles and cleaned the carpet. Tom WB8LCD asked if we could hook up one of the 7300 rigs and try to contact VP6D. This is one of the 20 or so hardest to hit contacts. We looked on line found they were operating SSB on 15 meters. After setting up the ICOM in offset mode some of us made the contact most requiring only 2 to 4 tries. That was a great experience!!

The last weekend in October we held a Replay for Kids workshop. We had a great turnout to fix and modify toys of disadvantaged kids. Replay for Kids is an outstanding organization that deserves our support. And, I might add, the workshops are "Big Fun". Pictures and more information appear in a separate article. We are already planning another workshop for early next year.

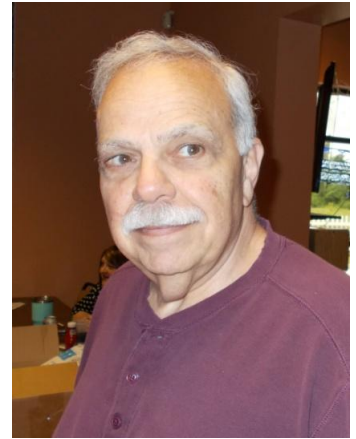
Final Note: You will see support for the Center of Hope mentioned many time in this newsletter. Please consider giving to this great organization. It's simple using the Donation button on our website. You can also show your support by coming to the November meeting and buying lot of tickets for our biggest 50/50 of the year.

Have a great November!



From the Vice President

Tony, WA8AR
PCARS Vice President



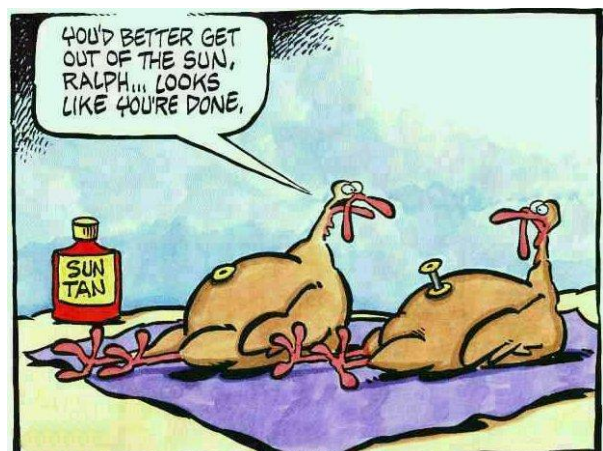
630 Meter Band Update

In an earlier article I talked about some of the potential operating opportunities and challenges presented by this new Medium Frequency (MF), 630 meter (672 kHz to 679 kHz) band. Note that US Amateur Radio operators are limited to a maximum effective radiated power (ERP) of 5 watts. To date I have been experimenting with receiving antennas and listening to the band while planning how to best home brew a transmitter and transmit antenna system. This article summarized some of my observations and preliminary thoughts on experimenting on this new band.

First here are a couple general statements. No matter how much real-estate you have any amateur built antenna system will be highly inefficient, but not impossible to build, even on a normal city lot. However, you will need to be extremely careful, at these frequencies RF voltages will be very high and very dangerous, capable of starting fires and potentially lethal. Non-linear modes such as CW and FSK narrow band weak signal modes are practical on this tiny slice of radio spectrum. This allows the use of cheap and easy to build class D non-linear amplifiers. With a 100 watt amplifier you will be lucky to put out 1 watt ERP from the inefficient antenna system. However, observations on WSPR show that regular sky wave contacts are possible through the continental US and even some DX using flea power. It is my understanding that vertically polarized signals are most effective at this frequency.

So far I have experimented with a 160 meter dipole and a 500 foot, long wire antenna. Both were adequate as receive antennas, however both were quite noisy a times. One key to operating will be to devise a less noise susceptible receive antenna. I have copied WSPR, CW and JT9 transmissions. I am sure there are more but this is what I have “heard” so far. My next steps will be to select a simple transmitter in the 100 watt class and design an antenna system that won’t set the trees or house on fire, maybe even put out more than a 0.5 watt ERP signal, and design a lower noise receive antenna!

Yes, the 630 meter band appears to be a real experimenter’s and QRP playground. There is still practically no commercial equipment available at this time, so this is strictly a homebrew band. Antenna systems will be a true challenge. Contesting will be almost not existent, but I am sure someone will figure that one out too.



November Meeting Information

Jim, AC8NT



ATTENTION ~ ATTENTION ALL PCARS MEMBERS !!

The November monthly meeting is coming up November 12th. **This is a very important meeting for two very important reasons.**

First, we will be electing officers. This year we need a new Treasurer. Amy has done a great job but has held the office for three years making her ineligible to run again. The Treasurer is an important job, but as in all of the PCARS officer's position you can expect all the help you need to succeed. We will also be electing or reelecting the position of President and Vice President and electing a new Three Year Trustee. **PLEASE CONSIDER STEPPING UP TO SUPPORT OUR CLUB.** If you are interested for a position come to the meeting. I am sure someone will nominate you.

Second, we will be holding our best 50/50 of the year to support the Center of Hope. We have a lot of great prizes including:

**Standard C1208DA 2 Meter mobile rig
Baofeng UV-5R w/ amo case
Yaesu FT1DR Fusion handheld 144/430
BridgeCom D-500 DMR UHF handheld
West Mountain PWRgate PG40S
Electronics for Dummies book
Three \$20 gift certificates for apparel
HiGain AV-18VS 80-10 Vertical antenna
Two 2 meter/70 cm Aluminum J-Pole Antennas
6 Volume 2019 Ham Radio Handbook**

These are valuable prizes that I know a lot of want. So, come to the meeting and buy a lots of tickets to support the Center of Hope and increase your chances to win one of the great prizes. **More prizes are being added as the days go by - You won't want to miss this meeting !!!!!!!**

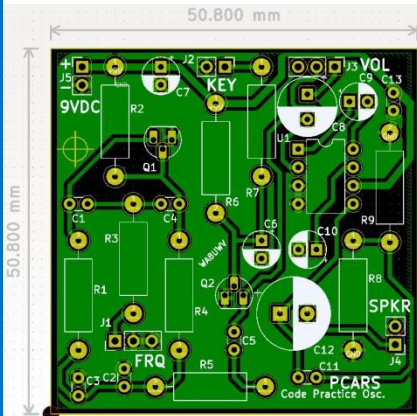
Please consider making a donation to the Center of Hope by simply using the PayPal button on the PCARS website home page. Any amount will be welcomed. If everyone donated just \$10 it would make our fund drive very special and help a lot of people that need our support. Please consider giving!! We will also accept checks and cash anytime. All checks should be made payable to the Center of Hope.



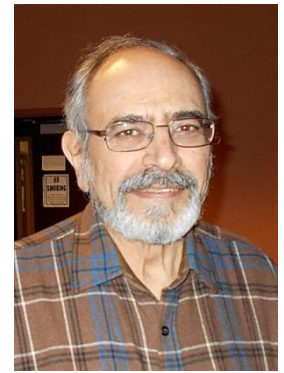
Also, if you have a GoBox setup, bring it to the meeting and show it off. It would be great to see all the GoBox setups that our club members have built.

See you at the meeting.

Code Practice Oscillator - News on the PCB



Doug, WA8UWV



ATTENTION: All who obtained the kit of parts for the Code Practice Oscillator and are waiting for the Printed Circuit Board.

I've layed out a board using Kicad and sent the Gerber files to Seed Fusion for fabrication. It took a while to get them but they are here now.

I purchased 30 boards and with shipping total cost was ~\$45. I will provide them to you for \$1.50 each.

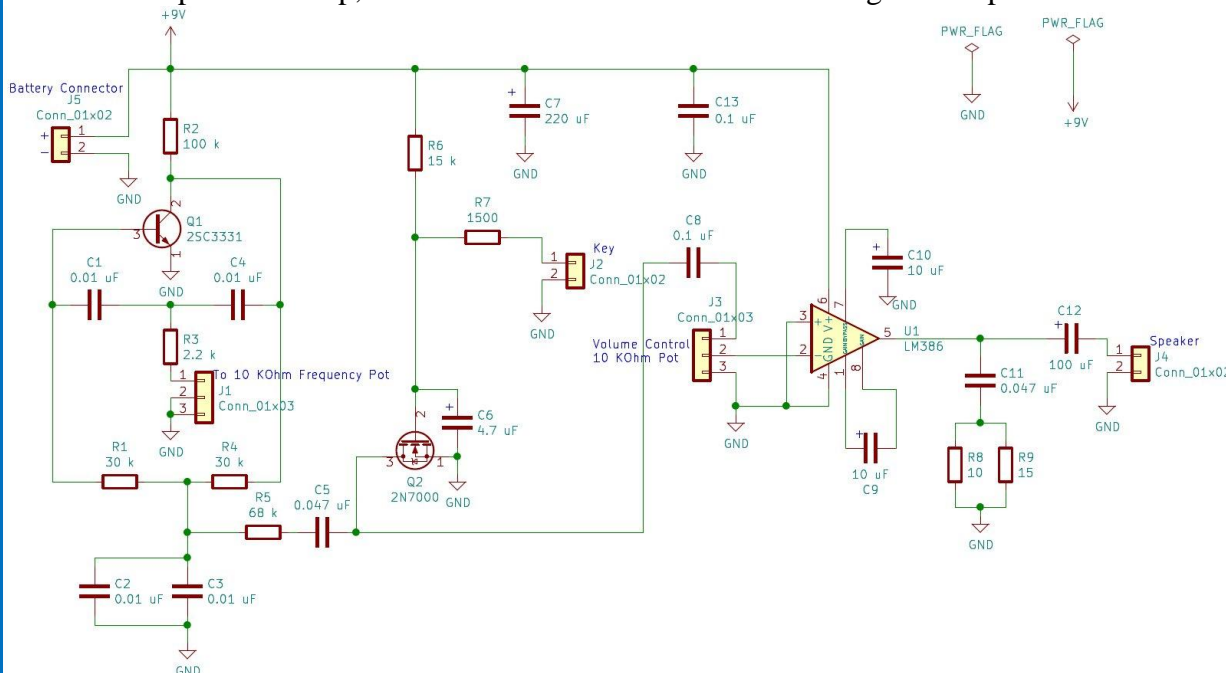
Note that the reference designations are not the same as on the schematic and parts list initially provided. The updated schematic and parts list must be used when assembling the board.

I have assembled a board and it operates perfectly. It has been a while since I've done a board design and they seldom turn out correct on the first iteration.



Even though this is a relatively simple circuit, I was surprised that no cuts & jumps are required. Actually, when I first powered it up, it didn't work. I then realized I had forgotten to put an LM386 in the socket. By the

way, do not install the IC backwards. They seldom survive that mistake. Also, pay close attention to the polarity of the electrolytic capacitors and the 9 V battery wires.



assemble the boards and test the Code Practice Oscillators. Suggestions? Since I failed to record who received the kits, *please* inform me of your calls (or emails if they're not on the PCARS database) so I can keep you informed of any modifications or developments.

You can contact me via e-mail at: WA8UWV@arrl.net

Vacuum Tube in its 112th Year: Same Old Challenges

George Trinkaus



MUCH HAS CHANGED

The engineering challenges of the hot cathode vacuum tube - an invention dated 1906 - are the same today as they were then. The inventing of new, more compact and efficient vacuum-tube designs proliferated madly up until the 1950s, but the art has been frozen ever since.

Before Fleming's diode and de Forest's triode Audion, inventors like Crookes, Tesla, and Roentgen had experimented with the magical effects of high voltage in vacuum. They created emissions of intense light and of strange rays, including x-rays. The "Fleming valve" was an evacuated glass envelope in which a light-bulb-style metallic filament - fed by low voltage and sucking high current - incandescend at 2,000°F. This created an electrical activity (or, in quantum parlance, "electron flow") that conducted unidirectionally through a vacuum to another nearby element - a metallic plate charged to a high positive potential. Thus was born a new rectifier, and hence, also a radio detector. Later, it was discovered that electrical activities within a tube could be leveraged at will by applying small fluctuations to a metallic grid interposed between the filament and plate (de Forest). Thus, human ingenuity created an amplifier, and hence, a modulator, an oscillator, a regulator, and an electronic switch. Also created was a means for huge magnifications by regenerative feedback (Armstrong).

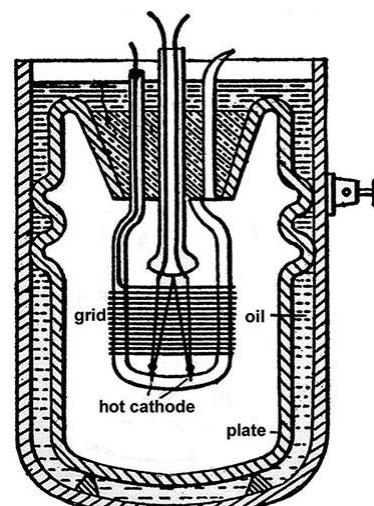


FIGURE 1. De Forest's high power triode.



FIGURE 2. 807 power tetrode.

Magnetic fields influence electrical phenomena within a tube, as in the magnetron and the cathode-ray. The vacuum tube became the foundation for almost all of electronics for the next 50 years. Until the mass production of the transistor in the late 1950s, electronics was the vacuum tube.

Post-transistor, the conventional hot cathode vacuum tube - despite its headaches for any engineer, builder, or user - has hung in there as a common choice for high-power transmitter finals. You can number this writer among those who revere the 811 and the 807 for this purpose. For the ham or broadcaster's kilowatt rig, the big 4-400A often wins out against the clustering together of power transistors.

The vacuum tube has seen a revival lately among audiophiles, who find in the vacuum tube ineffable qualities of depth, color, and warmth not found in solid-state.

Vacuum tube dealers still carry huge inventories of hundreds of types. Among the most popular are the 6L6, 6V6, 812, 12AX7, 12AU7, 12AT7, 300B, 6DJ8, 6922, and the 7308, as well as the types mentioned previously.



FIGURE 3. Popular power tubes.

With a few exceptions, vacuum tubes are almost completely out of manufacture in the USA. Dealers often go to Chinese or Russian sources, like Sovtek. The Russian military has a special respect for tube technology and uses it in the electronics of aircraft, tanks, and ships. Why? Because tubes are 10,000 to 50,000 times more resistant than solid-state to destruction by an EMP.

DEMANDING

The hot cathode vacuum tube is a challenge to engineers and builders because of its heat (mostly generated by that hot cathode filament) and because of its demanding power requirements. Blower-cooling is often necessary to dissipate waste heat. Large currents from heavy iron-core transformers are required to fuel the cathodes of these fragile, glass-enclosed devices. Also, high voltages from special power supplies are required to fuel the plates: from 150 to 4,000 volts of well-filtered DC at a few hundred mA. Power supplies, and the transformers with which to build them, are expensive and hard to find.

The 6L6 power pentode takes 900 mA on the cathode heater and 250 to 360 volts on the plate. The 807 also takes 900 mA on the heater and requires 750 volts on the plate; the 811A, four amperes and 1,200 to 1,500 volts. The heaters of the one-kilowatt 4-400A suck a whopping 14 amperes with 4,000 volts on the plate. Its transformers are huge, ponderous, and expensive.

Because of the transistor's moderate power requirements, and because of its compactness, electronics engineers pounced upon the invention as soon as it went into broad manufacture in the late 1950s.

Similarly, in the early '50s, the magnetic amplifier (**Figure 4**) was seriously entertained, and even manufactured, as an alternative to the fragile vacuum tube.

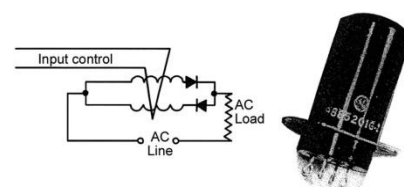


FIGURE 4. Magnetic amplifier.

The mag amp was superior to the tube and transistor in current and voltage capacities, more simple (you could build one yourself), and far more rugged in all respects. (See [“The Magnetic Amplifier, a Lost Technology of the 1950s”](#) in the *Nuts & Volts* February '06 issue.)

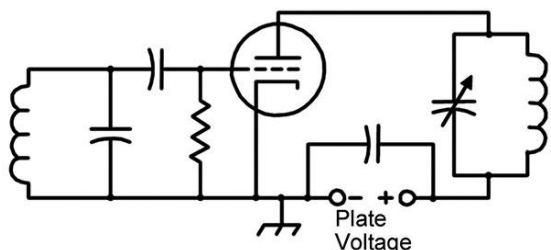
INTERNAL ENGINEERING

Appreciate the engineering challenges within the vacuum tube itself. Cathode temperature and plate potential are the key values in tube designing. The output (“emission”) of a hot cathode depends upon filament temperature. So, it's desirable to achieve the highest possible temperature. Yet one must engineer the tube so it

attains a long life before the delicate filament inevitably burns out and the tube becomes useless. So this sets limits to temperature.

The higher the plate voltage, the greater the electrical flow, but, at a certain high heat, there is a temperature-limitation barrier beyond which no increase in plate voltage will increase that flow.

Congestion of flow can also arise from an excessive build-up of electrical charge in certain spaces within the tube. This congestion sets a space-charge limitation to any conventional tube's performance. The proximity and shape of tube elements and the size and design of the envelope itself can enhance or mitigate space-charge problems.



Capacitance effects - especially at high frequencies - pose another design challenge. Each pair of tube elements constitutes a small capacitor that can affect amplification and oscillation. The larger the elements, the lower the frequency limit. Efforts to make the vacuum tube more compact created miniature and "acorn" tubes.

FIGURE 5. Tuned-plate-tuned-grid transmitter.

A tube can self-oscillate due to internal capacity effects. Internal capacity is exploited in a positive way in the power-amplifier circuit called tuned-plate tuned-grid (**Figure 5**).

A COLD CATHODE TUBE

In the 1930s, when some exploratory vacuum-tube engineering was still happening, P. T. Farnsworth obtained a series of patents on a cold cathode vacuum tube (**Figure 6**).

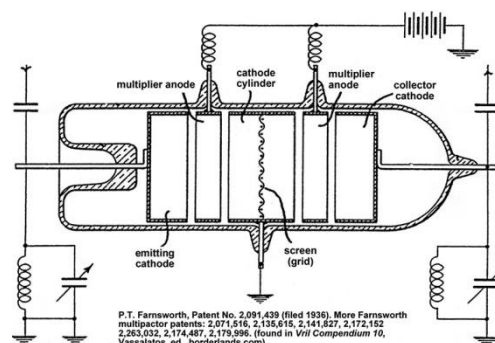


FIGURE 6. Farnsworth's cold cathode multipactor tube.

Farnsworth is known far and wide as the real inventor of television. (The history of radio is rife with rip-off: Tesla by Marconi, Fessenden by de Forest, Barreter by de Forest, Armstrong by de Forest, Farnsworth by Sarnoff.)

A cold cathode tube? But where does that necessary "cloud of electrons" come from?

Conventional tube theory and the whole history of the amplifying tube's development would have you believe that the only way electrical activity can be created in a vacuum is by "thermionic emission" from a hot cathode. (The same mythology prevails in traditional fluorescent lighting.) But Crookes didn't use hot cathodes in his evacuated spheres and tubes, nor did Tesla in his vacuum lighting devices or in his "rotating brush" detector. Effects are achieved by disturbances within the tube caused by the application of alternating currents, usually of high potential, generated by induction coils or by high-frequency Tesla coils.

Farnsworth's cold cathode multipactor amplifying and oscillating tubes were high-frequency inventions made for radio transmitting. Their range was 200 kHz to 60 MHz.

Says Farnsworth in his patent, "All that is necessary to set the tube into oscillation, is to energize the anodes, as there will be, in the space between the cathodes, a sufficient number of free electrons which are

accelerated toward one or both of the cathodes by the potential of the anode, to strike thereon and cause the initiation of secondary emissions.”

The tube is tuned to resonance in a way analogous to the tuned-plate-tuned-grid transmitter shown in **Figure 5**. Some of Farnsworth’s other patents show the tube set into a magnetic solenoid.

OVER-UNITY

Farnsworth said repeatedly in his patents that these devices are “over unity.” Regenerative feedback and resonant reinforcement appear to be involved. The fact this device works without a hot cathode implies that plenty of electric energy can be set free in a vacuum tube if it is properly stimulated. (Free-energy seekers take note!)

Perhaps the invention’s over unity potential explains why this novel tube never made it into manufacture, despite the fact that it liberated engineering from the problems of the old hot cathode. Did the invention just fall between the cracks like so many others? It did get a feature story in *Radio Magazine* (October 1934). Was the multipactor passed over because it was perceived as another “disruptive technology,” like the electric car?

I’ve built a mag amp, but I’ve never been tempted to construct a vacuum tube from scratch. However, reading these old patents makes me want to go shopping for a vacuum pump.

NUTS & VOLTS MAGAZINE (NOVEMBER 2006) - ABOUT THE AUTHOR George Trinkaus wrote *Radio Tesla* and *Tesla Coil* and edited Tesla’s *The True Wireless* and *Magnetic Amplifiers*. His High Voltage Press is at teslapress.com, (877) 263-1215.



Schedule of Events

On the calendar for upcoming meetings and activities are:

- Nov 5th - PCARS Board Meeting at the club site in Ravenna - 7 pm
- Nov 11th - Veterans Day - Thank a Veteran, past or presently serving
- Nov 12th - PCARS Meeting at the Kent American Legion - 7 pm
- Nov 17th - Boot Camp Preview - 9 am - 1 pm at the club site
- Nov 22nd - Thanks Giving Day - No Net - No Net Night at the Club Site
- Oct 1st - VE Test Session at the club site - 10 am

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

- | | | | |
|----------------|---|----------------|---------------------|
| First Tuesday | - | Digital | - Moderator: K8CAV |
| Second Tuesday | - | QRP/CW | - Moderator: KB8AMZ |
| 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



I Need Your Help !

Center of Hope



Following is a letter that I have been using via email to solicit my family and friends to help support the PCARS fund drive for the Center of Hope. Please feel to plagiarize, modify and use it in whatever way might work for you!

Tom, WB8LCD



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As you know, I have been an Amateur Radio Operator for most of my life. The Amateur Radio Service, as defined by Federal Law, exists for many reasons, and one of those reasons is to provide “service” in both local and national events. Usually in the form of auxiliary communications.

My local club, the Portage County Amateur Radio Service, Inc. (PCARS) has always been active in providing communications services wherever they are needed. I’m especially proud of my club for expanding our “service” into other areas of our local community. Most significantly our annual giving to the Center of Hope. The Center of Hope provides meals, groceries and other services to the less fortunate citizens of Portage County.

Every year since its beginning (2006), PCARS has made a donation just prior to Thanksgiving to help support the Center of Hope’s mission. Over the past 12 years, we have raised and donated almost \$30,000 to the Center of Hope. Our donation has increased every year so far, with last year’s donation just over \$6400!

I’m asking you for your help and support. Not for me, not for my club, but for the families who need help, especially as we move into the holiday season.

Your donation of *any amount* would be greatly appreciated! There are 3 ways you can make a donation: 1) You can give your donation directly to me. I will make sure it is properly notated and included in the PCARS donation for 2018. 2) You can mail your donation to: PCARS 705 Oakwood St., Box 12 Ravenna, OH 44266. 3) You can go to the PCARS website www.portcars.org and in the upper right hand corner of the homepage is a PAYPAL button specifically for donations. Please add a comment with your name and address if you would like a donation receipt. All checks should be payable to “Center of Hope” and you will receive a receipt directly from them.

You can find more information on the Center of Hope at <https://fcsserves.org/program/center-of-hope/> and you can find more information on PCARS and Amateur Radio at the PCARS website.

Thank You! And please feel free to forward this to anyone else who might be interested in helping us make this years PCARS donation bigger than ever!

73,
Thomas R. Sly - WB8LCD

Club Site Fix Up

Jim, AC8NT



The past month has been filled with work at the club site. It was time to freshen up the place and fix some of our problems. As you know, we had a few water leaks this past year.

Family Services worked on the roof and “knock on wood”, the leaks are gone. This meant we needed to do some cleanup in the Operations Room and Bay 3. Operations had the ceiling tiles replaced; the windows and blinds cleaned; the carpet cleaned; donated new air conditioners were installed and minor lighting repairs were made. You can see from the pictures on the following page, it looks much better.

We also took on the challenge of sprucing up the Social Room. New rugs were donated and a project to paint the floor was created because the rugs needed a good home. The garage door was looking poorly, so it needed painted. Unused shelves were removed. As you can see from the pictures, the room looks much better and is much more functional.

The three new ICOM IC-7300 rigs have been installed and will soon be operational. Their firmware has been updated and we are in the process of installing drivers in the computers to configure the computer to rig interface. With these rigs, we will not need Signalinks or rig control cables.

Bay 3 remains a work in progress. Lots of junk has found its way to the dumpster and a sale of unwanted equipment and “stuff” was held. We are now in the process of cleaning up the area and getting it better organized. When finished it will be returned to a very useful space.

Last but not least we are going to get a few better chairs for the club. Family Services is searching its locations for chairs they are willing to give us. This should significantly improve our seating and make the club more comfortable.



Every PCARS member can be proud of our club site. We are truly blessed to have a space nice. It's our job to keep it operating and looking good. All this work could not have been completed without a lot of help. I would like to thank all of you that came out, got dirty and made this happen. That includes a couple of XYLS that pitched in.

Next time you get a chance to see the club, let us know what you think.

Club Site Fix Up



PCARS
Join Now
Discover the FUN

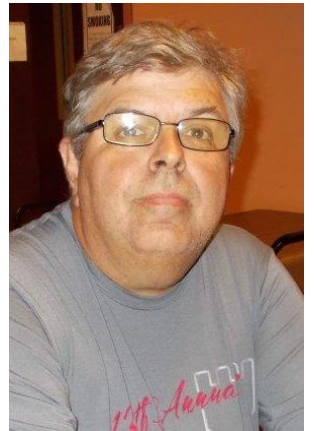


PCARS
www.portcars.org



On The Road Again to 'Get Your Park On'

John, KD8MQ



During the 3rd week of October, in conjunction with Earth Science Week, the North America WWFF program ran an event called “**Get Your Park On**”. The goal was to get parks activated in each state in the US. I’ve not heard the results yet, but I took a couple vacation days so that I could join in the fun.

I feel that operating portable from a park is some of the most fun you can have on the radio. Not everyone can afford to go on a DXpedition to an exotic location, but just about everyone can swing an expedition to activate a park. And, you can still be home in time for dinner. The event began on October 14th, and ran for a week. I was tied up with the PA QSO Party that weekend, but on Monday, I took a trip to Guilford Lake State Park. It was a dreary, rainy day, but what fun I had. Stations were calling in from all over North America, and Europe. I packed it in after an hour or two, and headed home.



and we had a great eyeball QSO.

On Thursday, I decided to try activating three Ohio State parks. So I got an early start, arriving at Wolf Run State Park around 10 AM. I arrived just a few moments before Buck, N8YRX, from Summit County. Buck was in the area to do some hiking,



After 21 QSOs, I got back on the road, heading to the newest park in the Ohio state park system; Jesse Owens State Park. I found a high spot to operate near the Big Muskie Bucket. The altitude was around 1000' ASL.

After another 21 QSOs, I headed for Salt Fork State Park. My operating position left a lot to be desired, as I only made a few contacts. Canada, Belgium, France, and the US were accounted for. But, I plan to return to Salt Fork at some time in the future.



The equipment this time was my trusty Yaesu FT-450, running 50W into my SOTA Beam 3-band linked dipole (<https://tinyurl.com/y78o7ael>). Power was provided by a pair of 17AH batteries which were charged in advance, but topped up by the truck as I drove between locations.

All in all, my “Southern Ohio State Park Rove” covered just shy of 250 miles. I hope to do it again in the spring. 73 All.



Replay for Kids

Jim, AC8NT

September 29th we had a great turnout at the club site for our Replay for Kids workshop. Some of you may not know the great work that Replay does for children with a wide range of disabilities. They basically take toys and modify them so they can be easily used by these kids. This may require adding a big switch to the toy or fixing a broken toy so it can be reused.



Natalie Wardega, Director of Operations, manages workshops at businesses and clubs to get this work done. As usual she showed up with a big van loaded with totes of toys that needed work and totes of parts for modifications and repairs. We had circuits that needed to be debugged, connections to be fixed and switches to install. Yes, it was work, but well worth the time and effort. We all had a great time helping with this worthy effort.

I would like to thank all those that came out and we may be holding another workshop early next year. For more information visit: www.replayforkids.org.



RePlay for Kids
because *every* child needs to play



PCARS VE Test Sessions

Tom, KB8UUZ
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.

December 1st,
2019: February 2nd, April 6th, June 1st, August 3rd, October 5th
Also - June 22nd at the Field Day site - 4 pm



What to Bring to the Testing Session

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



These documents may include:

- An unexpired Certificate of Successful Completion of Exam (CSCE) indicating the credit(s) earned indicating the credit(s) earned.
- Original and copy of a pre-March 21, 1987 Technician license (this provides credit for the Element 3 [General] exam) - you must be currently licensed to get this credit.

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

Any Questions? Contact: KB8UUZ@gmail.com

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/>



As most of you may know, the portcars e-mail forwarding system is working anymore. Too many internet providers are looking at our forwarding system as spam and deleting the e-mails we send out through that system. So, what to do?

Two things every member should do.

1. Check the PCARS web site every day, maybe a couple of times a day to see new information that is posted.
2. Another thing to do is to join the PCARS Yahoo Group. That's a great place to post message when you are looking for information or have a question about something. Try it - you just may like it!!

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@yahoo.com



PCARS Thursday Net Control

Greg, KA8TOA
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-in using the receiver located in Sugar Bush Knolls ~ 146.895 with a PL tone of 118.8.**

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

November	
1	WB2DFC
8	K8CAV
15	K8IV
22	Thanksgiving
29	AC8NT

December	
6	KA8TOA
13	KE8BWA
20	K8CAV
27	WB8LCD

The PCARS net is **BIG Fun** - tell your friends to check in via RF or EchoLink!

I am trying to get some new net control operators, anyone interested please contact me.

If you have not been a Net Control Operator for PCARS and would like to give it a try, *please* contact me at: grgory999@roadrunner.com

Everyone who is a club member is welcome to have a turn - and have fun being Net Control !

Net Operators: Use the current versions of the Net Script and Log Sheet (with my e-mail address on it). You can find them on the PCARS web site in the Nets section. *Please* download them and use them. Also, remember to e-mail me a copy of the log for the club records and certificates.

If you have some issues and can't make it as net control contact me or see if you can trade with someone.



Hamfest Calendar

11/17/2018 - Allen County Amateur Radio Technical Society - Location: Allen County War Memorial Coliseum - 4000 Parnell Avenue - **Fort Wayne, IN 46801** - Website: <http://www.fortwaynehamfest.com> - Contact: ACARTS Fort Wayne, W9INX - PO Box 10342 Fort Wayne, IN 46851 - Phone: 260-579-2196 - Email: chairman@fortwaynehamfest.com

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01/27/2019 - Tusco Amateur Radio Club - Location: Wallick Auctions - 965 North Wooster Avenue - Strasburg, OH 44680 - Website: <http://www.tuscoarc.org> - Contact: Janice Green , KB8YDK - 32210 Norris Road Tippecanoe, OH 44699 - Phone: 740-922-4454 - Email: k8wfn@tusco.net

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06/01/2019 - BreezeShooters Amateur Radio Club - Location: Big Butler Fairgrounds - 1127 New Castle Road - Prospect, PA 16052 - Website: <http://www.breezeshooters.org> - Contact: Cathy Heiles, KB3OYS - 134 Easley Road Pittsburgh, PA 15237 - Phone: 412-600-3846 - Email: kb3oys@breezeshooters.org

PCARS Membership Renewals

Gene, W8NET
PCARS Secretary



It's that time of year that most of you start taking care of your PCARS membership dues for the coming year. I want to ask you: **Please!** Do not just toss cash at any of the officers with the comment "Here it is!" Now don't get me wrong, I love cash. But loose cash is hard to keep track of, especially when receiving a lot from many different people all at the same time.

If you intend to pay your dues, in person, at one of the upcoming meetings, please go to the website (www.portcars.org), download an application form and complete it to include with your dues payment (there is also a copy of this form at the end of the newsletter). It would help if you could either staple, paper clip, or better yet, put it in an envelope with your payment before handing it in! This is necessary regardless of whether you pay your dues with either cash or a check. By the way, you can also pay your dues on the web site using PAYPAL.

We would especially like to ask you to complete your contact information on the application form: address, home phone number, cell phone number and email address. As many of you have replaced home phone numbers with cell phones, our contact information has become out dated. This is especially true with email addresses. Without correct, current information, you will not receive notification of the monthly newsletter nor the QST email updates that are sent out frequently. If you want to "Opt Out" of receiving our emails just let me know and I will have you removed from the list, but then you will need to download the newsletter from the club site, and check the site regularly to keep up with the current events that are normally distributed via the QST mailings.

Most importantly, I hope that you will renew your membership in PCARS and make a point of being an active member of the club.

CW/QRP & Linux Special Interest Groups

Terry, KB8AMZ



CW/QRP SIG

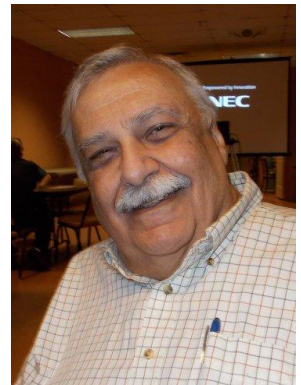
The clubhouse can fit about 20 people comfortably so if more than 20 show up we may have people sitting on the floor. This special interest group is for those having an interest in Low Power transmitting and Morse Code. There is no roster to belong to this group. Any ham may attend. If you have an interest in either then come to this meeting. We decide at September's SIG to bring our rig setup we use to show off for the group. Bring your rig, antenna, or both for display and discussion. This Special Interest Group meets the second - Tuesday, November 13, 2018 at 1900 EDT or 0000 UTC.

Linux for Hams SIG

There is no meeting of Linux for Hams SIG for the remainder of the 2018 year. The next Linux for Hams SIG will be **January 29, 2019**. Have a Happy Thanksgiving, Happy Hanukah, Merry Christmas, Happy New Year and whatever other "Happy Happy" I have not mentioned.

DX & Contest Special Interest Group

Chuck, W8PT



Hello Contesters and DXers:

On November 27, the fourth Tuesday of the month, we will be holding our DX/Contesting Special Interest Group meeting.

Our topic for discussion will be how we can get more members interested in either DXing or Contesting. One idea that has already been suggested is to have in-house contests among our members with certificates awarded for the winners.

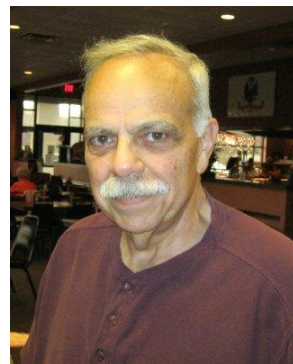
Let's say we have a contest where members would come to the club site and see if they could make 5 contacts to South America within a certain period of time. Those that accomplish this would receive a certificate along with an award sticker to put on the cert. They would then continue during other in-house contests to accumulate other stickers for completing other contests. That's just one idea.

Whatever we come up with, will give members the chance to work at their own pace without the rush of a huge contest. It would also give members experience on the new rigs being installed at the club. Who doesn't want to try their hand at a new IC-7300.

So if you have any novel ideas on what we can do to increase interest in either DXing or contesting from the club, come on out on the 4th Tuesday of November and share them with others.

Antenna Special Interest Group

Tony, WA8AR



The Antenna Special Interest Group meets at 7 PM in the PCARS club site radio room on the third Tuesday of every month. The November meeting will be held on 11/20/2018. All PCARS members and guests are welcome to attend. We will be discussing all antenna related topics including selection, design, construction, trouble shooting and safety for all Amateur Radio bands.

Please note that the PCARS QST email system is functioning very well again, so please watch for PCARS QST for last minute announcements prior to all Special Interest Groups. And, always check the PCARS web site for Antenna Special Interest Group updates or last minute cancellations before going to the club site for a meeting.



Swap-N-Shop

FOR SALE: Hustler 5-BTV Vertical Antenna - Good Condition with mounting bracket, SO-239 Adapter and home brew 17 M add-on. Delivered FREE anywhere in Portage County. I can also help with set up. \$75

Contact Gene, W8NET - call 330-619-9194 [02/02/19]

FOR SALE: ICOM IC-7300 - NEW - never turned on and still in the box! (I want a 7610) From HRO on Sept 25th - \$900.00

Contact Richard, KA8OAT - call 330-506-7068 [02/02/19]

FOR SALE: Two beams for sale. These were made *BEFORE* MFJ started making Cushcraft antennas. **Cushcraft Ten-3** Three element **10 meter beam**. Cost new \$299.95 - Sell for \$150.00. This beam helped me make 7,651 ten meter contacts.

Cushcraft A505S - Five element **6 meter beam**. Cost new \$199.95 - Sell for \$100.00. This beam snagged me 4,900 contacts and 366 different grids on 6 meters. These beams were on a tripod on my roof. Had the roof replaced and took down the antennas.

Contact Tom "Parky", KB8UUZ at kb8uuz@gmail.com [01/02/19]



FOR SALE: I have a used 80 meter Carolina Windham, with 100' of RG8X attached to it. I'll take almost any offer, and will consider any trade.

Contact Tom, WB8LCD at tomdly29@gmail.com [12/02/18]



CA QSO Party and AZ QSO Party

Chuck, W8PT



During October members of PCARS operated in two contests. The first was held on the weekend of Oct. 6-7. This was the California QSO Party. Of course, we have participated in this contest for a number of years now. In many cases we ended up first in Ohio and first in the USA in the Multi-Multi, Low Power Category.



This year the band was not favorable to us. We had five operators in total but not all were present during the entire event. We worked both SSB and CW modes and fell well short of our normal 200+ QSO totals.



We ended with 12 CW contacts and 154 SSB contacts for a total of 166 Qs. Out of the 58 California counties, which counted as multipliers, we worked 45. Our point total submitted on our log was 15,480. The lowest we earned prior to this year was over 27,000 pts. So you can see that we fell well short of any previous effort.

But we are not sure how others fared. So we will keep our fingers crossed and maybe we can come out of this one in better shape than we think.

The installation of new rigs may go far to helping us in future contests since there should be few questions on how to operate any of the rigs since they will be the same. And hopefully we can do much better next year.



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On the weekend of Oct. 13-14, we entered the 24 hour Arizona QSO Party. We sort of had to scramble on this one since the sponsors of this contest changed many of the rules at the last minute. We entered as a multi-multi, low power contestant. Since this was our first effort in the contest, and since they never had an out of state multi-multi entry, we were hoping to capture a first place award.



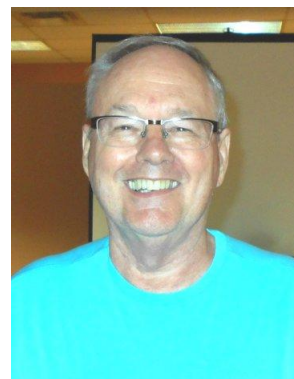
We had 8 members show up with 5 of those members filling up positions. The state counties were the multipliers. We worked 12 of the 15 counties which was a pleasant surprise.

We made 33 contacts for a total of 1,368 points. This time we worked just about every station we heard. We know that propagation to other parts of the country was more favorable just by hearing the number of Arizona stations worked by stations in Texas and other western states.

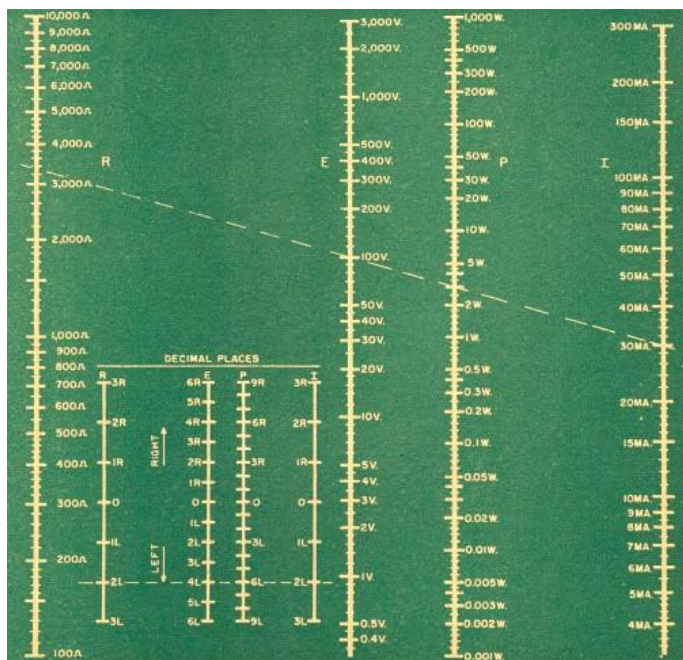
We're not sure how long we will have to wait for the results, but we are hopeful that our first effort was a good one.

Nomographs Still Very Useful

Jim, AC8NT



In 1884 a Frenchman Philbert Maurice d'Ocagne invented a tool that I am sitting here using in 2018. d'Ocagne is attributed with the invention the nomogram. A nomogram is a diagram representing the relationship between three or more values using a number of scales arranged such that the value of one of the variables can be found by geometric construction. Is that or is that not a mouth full. Simply put it is a calculator that requires no batteries and only a pencil and ruler to use. If you are of my age you easily remember nomograms that were used to compute values in electronics. One of the most popular nomograms was used to calculate E, I, R, and P. This chart appeared in the December 1954 Popular electronics, one of my favorite magazines. It is shown below.



This was a very useful tool before I could afford a slide rule and long before the pocket calculator was available. I'll bet most hams can remember at least one of these graphs. And before you say you are too young, remember the Smith Chart is basically a nomograph.

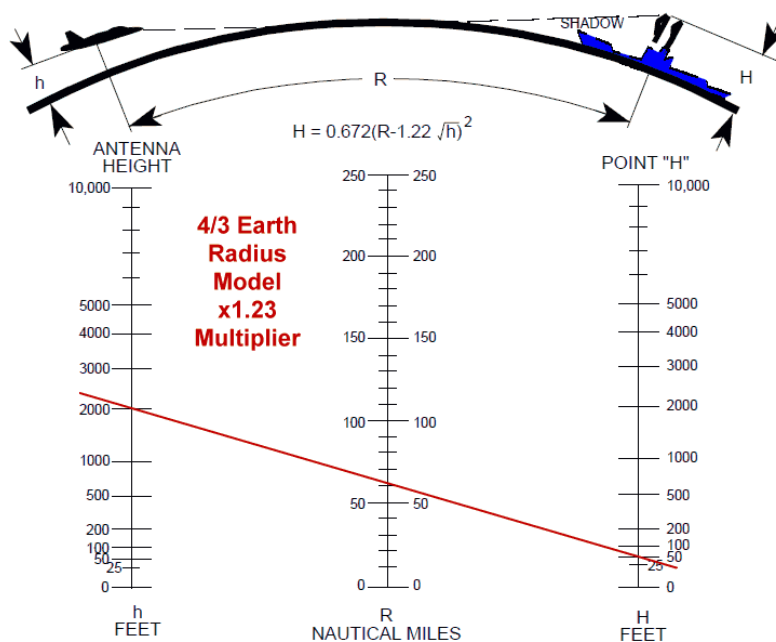
As some of you know, I am playing around with airplane scatter, kind of a man made meteor shower contact. I am using 30 GHz signals to bounce off aircraft buzzing around Northeastern Ohio. As you might imagine this process is based on the principles of radar. I wanted to know over what distances could a QSO be made. The answer can be found with a nomograph used by radar operators and sailor for years. It is shown below.

This simple looking tool solves the equation shown in the graph for the distance an object can be "seen" given the height of the two objects. If I am detecting the reflection from an aircraft at an altitude of 2000 feet and my antenna is at an altitude of 50 feet, the plane is about 60 miles away. If I

transmit a signal to that aircraft, it may be reflected to a receiver another 60 miles away making the maximum QSO distance about 120 miles. Remember the signal can also bounce right back to you making the QSO distance zero. This tool can be used without any knowledge of algebra to solve a relatively complex equation.

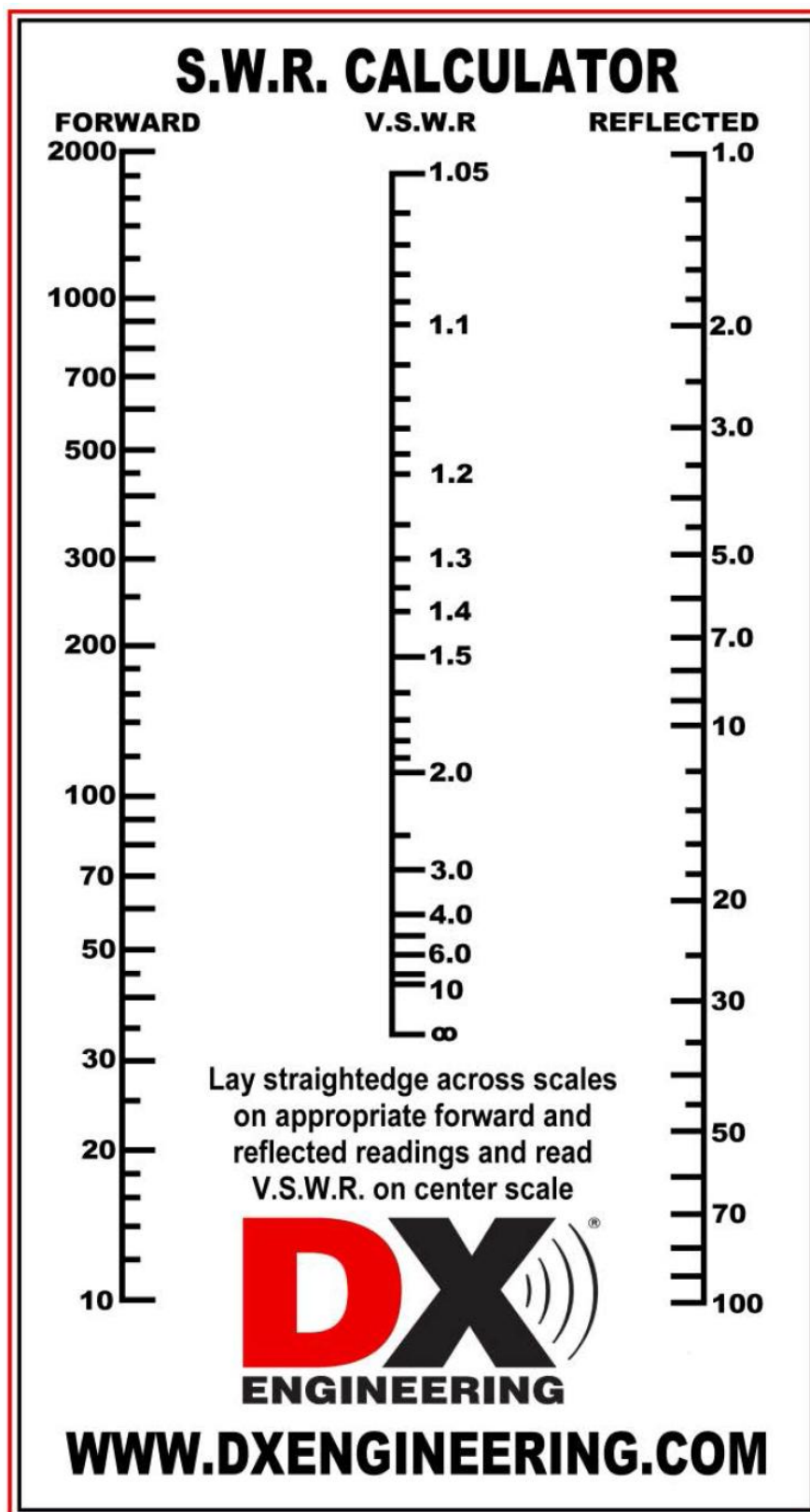
Calculators and personal computers have made these graphs (as the British would say) "redundant to requirements." But when you are focused on all the RF issues of the project it is nice to have a simple tool that doesn't require batteries.

Have some fun and search the net for electronic nomographs. You might just find a quick tool to use for ham radio.

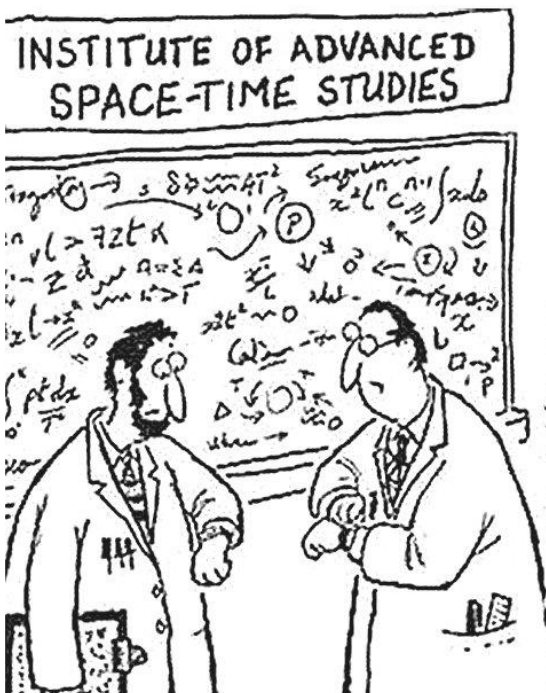


Here's another one that some older hams may remember. This one is on the **DX** Engineering web site.

I can remember having one of these type of graphs laminated and in my tool box years ago - *Parky*



Spring Forward - FALL BACK



**No - It's Spring Forward
FALL BACK**

It is that time of year again - Sunday, November 4th at 2:00 am (local time) - Turn your clocks **BACK** one hour (*Fall Back*). We go from Eastern Daylight Saving Time to Eastern Standard Time.

**UTC (GMT or Zulu Time)
does NOT change.**

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

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

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



PCARS

**ARRL Volunteer Examiners:
serving the Amateur Radio
community**

**First Saturdays 10:00 am
at the club site in Ravenna
February, April, June, August,
October, December**



Charlie the Tuner's HF High-Lites

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



Hello DXers:

It's really interesting to see what the bands are doing lately. Most often you don't hear anything on 15 or 10. We all have bought into the notion that because of the lack of sunspots, the bands are dead. But are they really? Because of the upcoming contest this weekend, I have been working DX on those two bands. Now, I'm not going to tell you that the signals I'm copying are 20/9 but they are at least 5x5 and you can carry on a good QSO.

So look to these bands during big contest weekends and you may be surprised by what you hear and work. Let's see what we all might find in the next few months.

Thanks to the Northern Ohio Amateur Radio Society, Northern Ohio DX Association, Ohio/Penn PacketCluster Network, AB5K & the AR TelNet Clusters Network, AF1G/C6ATH, NJ1Q & W1AW, NG3K & ADXO, W3UR & The Daily DX, K6VVA, K8GI, K8YSE, W8GEX & 60m DX News, W9ILY, DL1SBF, DL7UXG & The DX News Letter, DxCoffee.com, DXNews.com, DX-World.Net, ES1CW, F5NQL, F6AJA & Les Nouvelles DX, HA1AG, I1JQJ/IK1ADH & 425 DX News, I2MQP & DX Italia News, JI1LET, OZ1ADL, OZ6OM & 50 MHz DX News, Sixitalia Weekly, and VA3RJ & ICPO for the following DX information.

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

PLEASE NOTE: The fact that donation requests, from various DXpeditions, are at times included in this column does not mean that PCARS or this HAM approves or disapproves of donating to the DXpeditions listed. I am only providing information for you to make up your own minds as to whether or not to donate.

4S, SIR LANKA. Peter, DC0KK, will once again be active as 4S7KKG from Moragalla, Sri Lanka (AS-003, WLOTA 0762) between November 1st and April 1st. He states that he preferably likes to be active on the Digital modes and CW. QSL via his home callsign, direct and by the Bureau. All QSOs will be uploaded to LoTW and ClubLog.

4X0, ISRAEL. Members of the Holy Land DX Group will operate from the heart of "Masada Fortress" <https://en.wikipedia.org/wiki/Masada> as 4X0M (M=Masada) between Jan 4-6, 2019. Masada is one of the most attractive sites and has the highest number of tourists visiting. Activity will start on Friday, Jan 4, at 0730 UTC, and close down on Sunday, Jan 6, 0600 UTC. They will have two stations on the air on 80-10 meters using CW and SSB. Operators mentioned are Ruben/4Z5FI, Mark/4Z4KX, Alex/4Z4AK, Ros/4Z5LA, Yuli/4X6HP, Vladimir/4Z5IW, Amir/4X6YA, Arthur/ 4X4DZ, Jan/4X1VF and Hal/W8HC. QSL Manager is Antonello, IK2DUW.

5A, LIBYA. YL Elham, 5A0YL, is now active from Tripoli, and was heard on 20 meters (14280 kHz between 1530-1730z). She is a new op and is being mentored by Abubaker, 5A1AL. No other details are available, but watch QRZ.com.

5H, TANZANIA. Maurizio, IK2GZU, will once again return to the "Mission Ilembula" to do some work at the new hospital and orphanage until November 28th. He plans to be active during his spare time as 5H3MB on various HF bands. Maurizio will use his FT-100 and the mission's TS-850 into a tri-band 3 element beam (20/15/10m) fixed on Europe and a vertical or dipole for the other bands. QSL via IK2GZU, direct or by the Bureau. Also, QSL via LoTW (after his return home) and eQSL. For more details, updates and an online log, visit his Web pages at: <http://www.buffoli-pm.it/5h/Tanzania%202011.htm> and <http://www.buffoli-pm.it/5h/qs1%20request.htm>

5R, MADAGASCAR (Looking For Ops!). Alex, K2BB, announced this past week that he and his friend Paul, UU0JR, will be active as 5R8R (TBD) from Nosy Be Island (IOTA AF-057), Madagascar, between November 19-29th. Activity will be on 160-10 meters using CW, SSB and the Digital modes. They will participate in the CQWW DX CW Contest (November 24-25th) as a Multi-Single or possibly as Multi-2 entry (if they have enough ops). Alex states, "We will have 2 stations. Radios, so far: Kenwood TS-590, Icom IC-7300, Elecraft KX3 just in case, Odyssey 2 SDR for fun, one radio will have an Elecraft KPA-500 amplifier, second station will be 100W. Antennas, so far: 2 verticals covering 160-80-40-30m, a Spiderbeam for 20 10m and possibly a Beverage if we have enough space for it. We are renting a private villa which can accommodate 4 people - huge garden, swimming pool, kitchen, cook, beach access, you name it... Sounds like fun? Then join us! But make up your mind quickly. If interested, email me directly at alex.k2bb@gmail.com."

5Z, KENYA. Scott, WA5A, is once again active as 5Z4/WA5A from Ruaka until November 7th. Activity will be holiday style on 40/20/15 meters using mainly SSB. QSL via his home callsign.

7Q, MALAWI. Susan, W7KFI, will be joining Don, K6ZO, active as 7Q7M and 7Q6M, respectively, from Embangweni Mission Hospital, in Northern Malawi, late Nov for the CQWW DX CW Contest. Susan told OPDX that she will be there for 8 days (specific days were not mentioned). She also mentioned that Don will put up a 6 element 20 m beam on top of 65 ft. tower while there, and hopes to build a world class contest station for future use. Activity on 160-10 meters, but they will concentrating on 20m (14036 kHz) and 40m (7036 kHz). Remember to look for them in the contest. QSL 7Q6M via K6ZO. QSL 7Q7M via Susan's instructions. ADDED NOTE: You may remember Susan, W7KFI, who is about 83, and was the Skipper of her own sailboat called "USSV DHARMA" stationed in Hawaii. She planned to activate Johnston Island (KH3) in 2011, but had engine problems and then some health issues. She is now living in Gulfport, MS.

8Q, MALDIVES. Braco, E77DX (OE1EMS), will be active as 8Q7DX, from Baa Atoll (AS-013) between Nov 10-27th. Activity will be holiday style on 160-10 meters using mainly CW. He will also be in the CQWW DX CW Contest (November 24-25th) as a Single-Op/All-Band/High-Power/Classic entry, but only for the first 24 Hrs. Equipment is a Elecraft KX-3, Juma 1000 1KW, into an end-fed antenna in half-square configuration (80-10m). QSL via OE1EMS.

9Y, TRINIDAD AND TOBAGO. Nick, VE3EY, will once again be active as 9Y4/VE3EY from Trinidad and Tobago between November 19-26th. This will be a (Field Day) suitcase operation on 160-10 meters using a K3 and KPA500 amp into two verticals. His activity will include the CQWW DX CW Contest (November 24-25th) as a Single-Op/All-Band/High-Power entry. Focus prior to the contest will be on Low Bands/WARC. QSL via VE3EY.

C6, BAHAMAS. After his WP3Q operation (see below), Brian, ND3F, will be active as C6AQQ from Nassau, New Providence Island (NA-001), between November 24th and December 1st. Activity will include the CQWW DX CW Contest (November 24-25th) as a Single-Op/All-Band/Low-Power entry. He will use a modest portable setup. Outside the contest, Brian plans to operate FT8. QSL via N3IQ.

CR3, MADEIRA. Operators David/CT1DRB, Laszlo/HA3NU, Rastislav/OM3BH, Jozef/OM3GI, Tibor/OM3RM and Peter/OM7LW will be active as CR3DX from Porto Moniz, Madeira Island, during the CQWW DX CW Contest (November 24-25th) as a Multi-? entry. QSL via OM2VL.

E4, PALESTINE. Janusz, SP9FIH, will once again be active as E44WE from Bethlehem until November 11th. Activity will be on 20/17/15 meters (possibly 160m) using SSB, some RTTY and possibly FT8. He will also be active in the CQWW DX SSB Contest (October 27-28th) as a Single-Op/Single-Band (20m)/Assisted/Low-Power entry. QSL via his home call sign or ClubLog's OQRS. For more details and updates, see: <http://www.e4.dxpeditons.org>

EA8, CANARY ISLANDS. Kasimir, DL2SBY, active as EA8/DL2SBY from Fuerteventura Island (AF-004). Length of activity unknown. Activity will usually be on 40-6 meters including 17/12 meters and possibly 30 meters using CW, SSB, RTTY and FT8. His equipment will be a TS480SAT with a 400 watts amp, antennas are a Triple Leg (20/17/15/12/10m), vertical (80-10m) and an Inverted Vee (30/40m). QSL HB0/DL2SBY via DL2SBY, direct or the OQRS (Bureau/direct) via ClubLog ONLY. Do not send your QSL via the Bureau! His log will be uploaded to LoTW later.

FG, GUADELOUPE. Roger, SM7RYR, will be active as FG/SM7RYR from Deshaies, Guadeloupe (NA-102), until November 11th. Activity will be holiday style mainly on 20 meters CW and possibly 17/12m (depending on conditions). Equipment is a KX2 with a KXPA100 into a GP on beach. QSL via LoTW.

FS, ST.MARTIN. Operators Paul/K9NU, John/W9ILY, Mike/W9MK, John/K9EL and Marco/FS4WBS active as FS/homecall (except FS4WBS) between Nov 28 and Decr 7. Team Saint Martin 2018 states, "The island of Sint Maarten was devastated by Hurricane Irma in September 2017. The people of the island faced many hardships but now welcome tourists back to their wonderful island. We will celebrate with the people of Saint Martin from 28 Nov to 8 Dec." Operations will be on a hillside location not far from Orient Beach with excellent takeoff to most areas of the world. The team's primary focus will be on 160/80 m during hours of darkness. They will also operate 40-6 m depending on the propagation openings. Their primary modes will be CW, SSB and FT8. Their plan is to operate FT8 in Fox/Hound mode on DXpedition frequencies. Some RTTY is also planned. There will be NO operation on 60 meters or PSK modes. Currently, QSL details are as follows: FS/K9NU - ClubLog's OQRS, LoTW, direct or by the Bureau. FS/W9ILY - ClubLog's OQRS, LoTW, direct or by the Bureau. FS/K9EL - ClubLog's OQRS, LoTW, direct or by the Bureau. FS/W9MK - Listen for instructions. FS4WBS - QSL via IZ1MHY. Daily uploads to ClubLog and LoTW will be done if possible. For more details and updates, see: <http://www.k9el.com/SaintMartin2018/SXM2018.htm>

HC, ECUADOR. Uwe, DL8UD, active as HC5M from Cuenca between Nov 21-28. He plans to operate in the CQWW DX CW Contest (Nov 24-25) as a Single-Op/All-Band/High-Power/Assisted entry. Before and after the contest, Uwe will operate on 160-10 meters, including the 30/17/12m bands, using CW and SSB. QSL via DL8UD, direct or by the Bureau.

IOTA ANNOUNCEMENT. Roder Balister, G3KMA, announced that at the 2018 RSGB Convention 6 new IOTA groups that would be added to the IOTA Directory. The new IOTAs are as follows: EU-192 [SM/OH] – Kataja Island (Finland/Sweden) OC-297 [FO] – Morane Atoll (Tuamotu, French Polynesia) NA-249 [KP3] – Puerto Rico's Coastal Islands NA-250 [KL] – Yakutat County Group, Coastal Groups (Alaska) AS-204 [R0F] – Kuril'skiye Island North AS-205 [R0X] – Bering Sea Coast East

JD1, OGASAWARA. Operators Koji/JI1LET, Takeshi/JA1UII, Masatoshi/JH1HHC and Hideo/JI1CRM will be active as JD1BOI, JD1BON, JD1BPH and JI1CRM/JD1, respectively, from Komagari, Chichijima Island (AS-031), between November 22nd and December 7th. Activity will be on 160/80/40/30/20/17/15/12/10/6 meters using CW, SSB, RTTY and FT8. QSL via their home callsigns, direct, by the Bureau or LoTW.

OC-113/OC-279 Operators Cezar/VE3LYC and Adrian/KO8SCA will operate as TX0A from Maria Est Atoll in the Acteon Group (OC-113), and as TX0M from Morane Atoll in the Morane Group (OC-297P) between Dec 4-18. The only amateur radio activity from the Acteon Group took place more than 28 years ago by Robert Berry (FO5BI/P). He operated in Apr 1990 from the Marutea Sud Atoll. This IOTA reference is currently ranked #6 on the Most Wanted IOTA Listing, needed by 98% of the IOTA members. Since at the time of this operation there will be 1126 IOTA references activated to date, compared to 340 current DXCC entities, the rarity of this IOTA group corresponds to #2 on the DXCC Listing. The Morane Atoll is the only counter of the New IOTA Group OC-297. It fits the "Remote Island Group" criterion (IOTA Programme Structure B.1.3). Both Atolls are uninhabited. The plan is to operate from each Atoll for 5 full days. Activity will be on CW, SSB and 40-10 meters concentrating on the bands that will exhibit the best propagation conditions within specific time windows for each region. They will maintain one station on 20 m as long as the propagation will permit in order to maximize the number of unique stations logged. This is a complex and extremely expensive project, and they need your support to defray some of the considerable costs incurred! All donors will be timely acknowledged on their Web site at: <https://tx0a-tx0m.weebly.com> QSL via VE3LYC, direct, by the Bureau or ClubLog's OQRS.

OM. SLOVAK REPUBLIC. Members of the radio club Horec are QRV with special event call OM75TESLA until the end of the year to commemorate Nikola Tesla's death 75 years ago. QSL via OM3KHT.

PE75, THE NETHERLANDS. Operators Wino/PA0ABM and Rich/PA0RRS will be active as PE75W to celebrate their 75th birthdays during the CQWW DX CW Contest (November 24-25th). They will use 100w into a 3-element yagi for the high bands and dipoles for the low bands. QSL only via LoTW.

SW9, CRETE. Ops Christo/LZ3FN, Todor/LZ4AW and Georgios/SV9DJO active as SW9AA from Crete (EU-015, GIOTA KRS-005, MIA MGC-005, WLOTA 1400) during the CQWW DX CW Contest (Nov 24-25) as a Multi-Op/Low-Power entry. QSL via LZ1PM. Activity outside of the contest will be holiday style on all bands, mainly CW.

T32, EAST KIRIBATI ISLANDS. Nobuaki, JA0JHQ, will be active as T32NH from Captain Cook Hotel on Kiritimati Island (OC-024) between December 5-11th. Activity will be on 160-6 meters using CW and FT8. He also plans to be in the ARRL 10m Contest [December 8-9th] (CW, if possible SSB). Equipment is a TS-480HX w/200w into a MV or Vertical antenna. (Using Linear Amp is not permitted at Kiribati, because of the interference to the AM Radio) QSL via JA0JHQ direct or LoTW (preferred). For more details and updates, see: <https://pandasan.jimdo.com/t32nh>

TI5/TI7, COSTA RICA. Chris, KL9A, will once again be active as TI7W from Costa Rica during the CQWW DX CW Contest (November 24-25th) as a Single- Op/All-Band/High-Power entry. QSL TI7W via W4FS. Outside of the contest he will use the callsign TI5/KL9A on all bands. QSL TI5/KL9A via W2GR.

TK, CORSICA. Look for "Team Charlie" (TeamC) to be active again as TK0C from Sant Ambroggio, Corsica, during the CQWW DX CW Contest (November 24-25th) as a Multi-2 entry. QSL via S50C, direct, eQSL and LoTW. The list of operators was not provided. For details and updates, watch: <https://www.facebook.com/TK0CHARLIE>

V4, ST. KITTS. John, W5JON, will once again be active as V47JA from his Calypso Bay, St. Kitts, West Indies vacation home until November 6th. Activity will be on 160-6 meters (incl. 60m) using SSB and FT8. Equipment is a Yaesu FT1000MP, FT857D and an Elecraft KPA500 Amplifier. John states his antennas are a 33', 40-10m Vertical, 35', 80m Top Loaded Vertical, a base loaded 160m Vertical and on 6m a 5 element Yagi. ALL QSLs go to W5JON direct or via LoTW. NO Bureau QSLs. Also, visiting and operating from John's QTH will be Clive, GM3POI, between October 23-30th, as V4/GM3POI, on CW, SSB and FT8. Clive will also be in the CQWW DX SSB Contest (October 27-28th) signing as V47X, and as a Single-Op/Single-Band (20m) entry. QSL V47X via M0URX.

V6, MICRONESIA. Shu, JA1FMN, active as V63PSK from Weno Island (in the Chuuk State; also known as Moen Island; OC-011) between Nov 19-25. Activity will be holiday style on 40-15 m using JT65, JT9, FT8 and PSK63. Watch primarily between 1700-0200z. QSL via JA1FMN, by the Bureau, direct, eQSL or ClubLog's OQRS (on Nov. 26).

VP2E, ANGUILLA. Ops Rich/KE1B and YL Anna/W6NN active as VP2EAQ and VP2EAR, respectively, from Songbird Villa, Rendezvous Bay, between November 19-28th. Activity will be "holiday-style" using a single station (an Elecraft K3S) with 100w and a Buddipole antenna system directly adjacent to the sea. Operations will be on all bands 40-10 meters (including 30/17/12m), and all modes (CW/SSB/RTTY/FT8). Look for VP2EAQ to be active in CQWW DX CW Contest (November 24-25th). They expect to have Internet access, and plan to upload logs to ClubLog daily. You can check your QSO status and request a QSL card via the Online QSL Request System (OQRS). Direct QSLs are via their home callsign (see QRZ.com for details). Also, QSL via LoTW or eQSL. Bureau cards should be sent via KE1B.

VP2M, MONTSERRAT. Op Lee/K7NM, Steve/WM7Z, Richard/NS7K and Glenn/ AC7ZN active as VP2MLB, VP2MSA, VP2MSK and VP2MZN, respectively, from Gingerbread Hill, St. Peters, Montserrat (NA-103), sometime late Nov and early Dec. Activity will be on 160-6 meters using CW, SSB, PSK and FT8. They will also be in the ARRL 160m CW Contest (November 30th-December 2nd) signing as VP2MSK and as a Multi-Op entry. QSL VP2MSK via NS7K, ClubLog or LoTW. QSL VP2MLB via K7NM. QSL VP2MSA via WM7Z or LoTW. QSL VP2MZN via AC7ZN.

VP6D DUCIE ISLAND DXPEDITION NEWS. The VP6D team arrived at Ducie Island (OC-182) on Friday, October 19th, and are now active until November 3rd. The first VP6D station hit the airwaves on October 20th, around 0418z on 40 meters CW followed by a 20 meters SSB station. Activity will be on 160-10 meters using CW, SSB and various Digital modes which includes FT8.

All the information can be found at www.vp6d.com AND they are using DXA Logging, so you can see in just seconds if you are in the log after making a contact!!! Very cool stuff !!!!



Note - during the October Net Night at the Club Site - KB8AMZ, WB8LCD, WA8UWV and NR8W worked VP6D on 15 meters !!!

That's it for this month and for a few months out. Until next month, vry 73.

Contest Calendars

November Contest Calendar	
Contest Name	Times
ARRL Sweepstakes Contest, CW	2100Z, Nov 3 to 0300Z, Nov 5
10-10 Int. Fall Contest, Digital	0001Z, Nov 10 to 2359Z, Nov 11
ARRL Sweepstakes Contest, SSB	2100Z, Nov 17 to 0300Z, Nov 19
CQ Worldwide DX Contest, CW	0000Z, Nov 24 to 2400Z, Nov 25
ARRL 160 Meter Contest, CW	2200Z, Nov 30 to 1600Z Dec 2

YES - There are MANY More Contests out there - Check the internet.

□ Sweepstakes Contest is this Month



Gerry, W1VE

Larry, K5OT

Bart, W9JJ

Achieving a "Clean Sweep" is the Brass Ring of ARRL November Sweepstakes

[ARRL November Sweepstakes](#) (SS) is just ahead. The popular operating events -- one for CW and the other for phone (SSB) -- typically attract approximately 3,000 logs combined. For this 77th running ARRL November Sweepstakes, the CW event is November 3 - 5 (UTC), and phone is November 17 - 19 (UTC), each starting at 2100 UTC on that Saturday and running through 0259 UTC on that Monday. Stations may operate 24 of the available 30 hours. **Logs are due within 7 days after the event is over.** Last year saw 1,275 entries for the CW weekend, while the phone weekend attracted 1,674 logs.

The challenge of SS -- or "Sweeps" -- is to work as many stations in as many of the 83 [ARRL and Radio Amateurs of Canada \(RAC\)](#) sections as possible within the 24 hours available to operate. The number of sections worked is a score multiplier. Making a "clean sweep" is the goal of many SS aficionados -- working all 83 of the available US and Canadian multipliers, and qualifying for a clean sweep coffee mug. In the 2017 CW event, only 10 operators managed to work them all. Phone participants had better luck, with 78 clean sweeps. Last year, Puerto Rico (PR) and the US Virgin Islands (VI) were still reeling from devastating hurricanes, making those sections rare.

At one time, the most difficult SS multiplier was Northern Territories (NT) in Canada, where J. Allen, VY1JA, in Yukon Territory, was often the only station available. That's changed now that the VY1JA station not only has been thoroughly upgraded but can be remotely operated (as VY1AAA), although by a Canadian operator, thanks to Gerry Hull, W1VE/VE1RM, who told ARRL this week that VY1AAA is ready for SS action.

Other hard ones in 2017 appear to have been Alberta (AB), Northern New York (NNY), US Virgin Islands (VI), and Wyoming (WY).

SS is a "domestic" contest with broad appeal, and even stations with modest equipment and antennas can enjoy success. Many stations like to operate in the QRP category (output of 5 W or less), although that challenge is more daunting at this point in the solar cycle. "Casual operators are very important to SS, so I would advise that if you come across [operators] who just want to help you out with a QSO, take the time to walk them through the proper exchange sequence, and encourage them to work other stations and to submit a log," said now-retired SS Manager Larry Hammel, K5OT. "Your patience might be rewarded with a motivated op next year!"

The SS *Operating Guide* package, available for [download](#), explains how to participate in the Sweepstakes, including all rules and examples of log formatting. Read [more](#).

Joe, W8KNO



On Veterans Day, Nov. 11, the American Legion headquarters staff and station K9TAL will anchor our annual “special event” net, using call sign N9V, honoring our nation’s veterans. Amateur operators who log contact N9V (or any of our affiliated stations around the country) will be eligible to receive a special certificate for their “radio shack.”



The American Legion National Salute to America's Veterans

Saturday, Nov. 11, 1 p.m. to 7 p.m. Eastern Standard Time
[1800Z to 2359Z]

The American Legion Amateur Radio Club (TALARC) will operate special event stations using the call sign N9V [November-Niner-Veteran]. The purpose of this special event is to underscore the importance of Veterans Day via the amateur radio community and acknowledge the honorable nature of military service.

Any ham radio operator who contacts a station is eligible to receive a QSL card and a commemorative certificate to document their participation.

N9V Special Event Stations N9V/WA3DVO, QTH: MD 40m, 7.225 MHz (+/- 5 KHz) LSB
Control Station: N9V, QTH: Indiana (K9TAL) 2m, K9DC 147.315 Repeater at Indianapolis on IRLP Node 9735 EchoLink *CROSSRDS* Conference node

N9V/KI0CW, QTH: SD 20m, 14.275 MHz (+/- 5 KHz) USB

To receive a QSL card and certificate after working N9V, send your name, address, call sign and a 9 x 12-inch self-addressed stamped envelope to The American Legion Amateur Radio Club, c/o The American Legion, 700 N. Pennsylvania Street, Indianapolis, IN 46204.

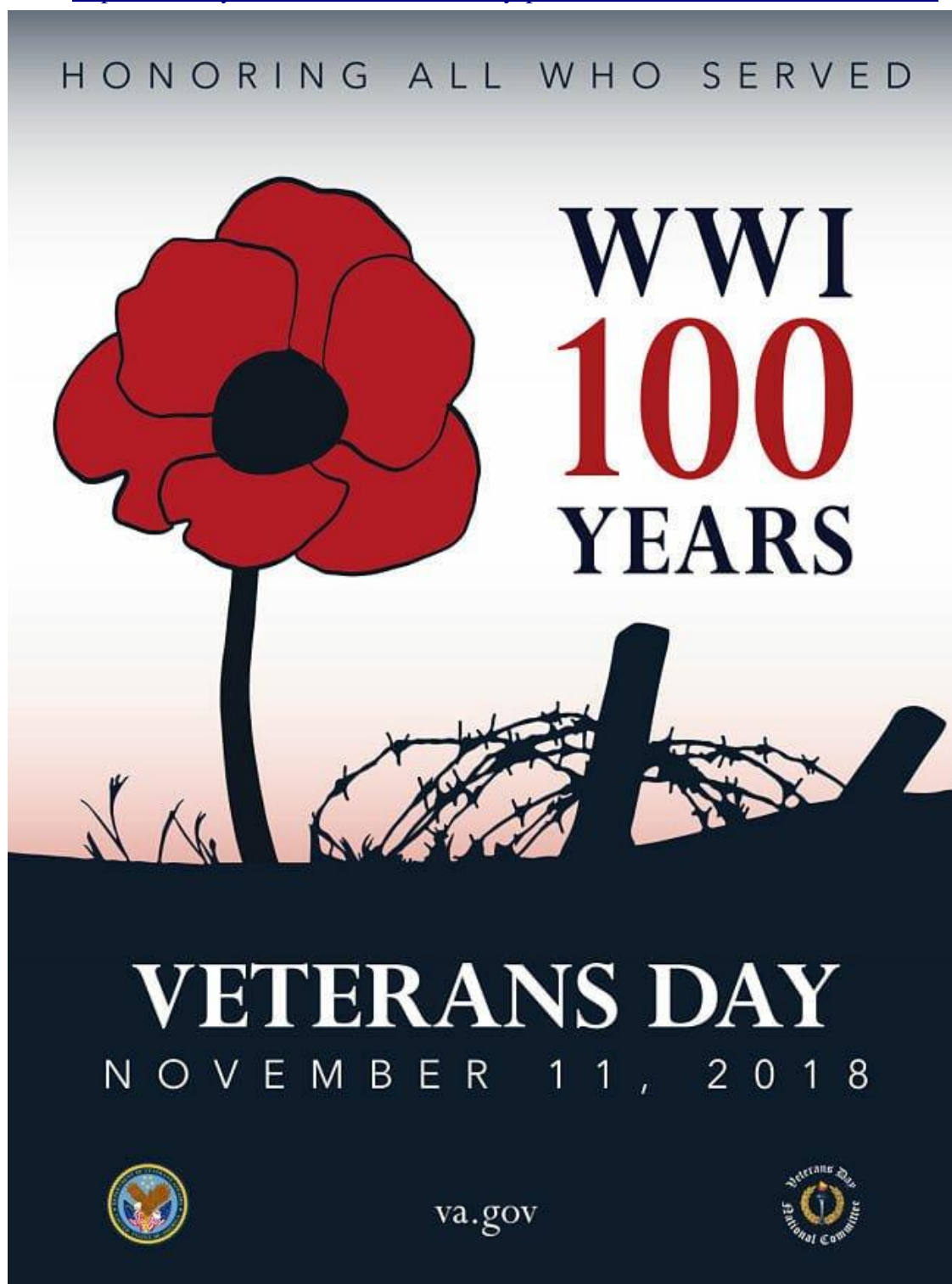
All hams are welcome to check into this special event, whether TALARC members or not. More information about TALARC [call sign K9TAL], The American Legion and club membership for eligible wartime veterans is at www.legion.org/hamradio.



Veterans Day 2018

2018 marks the Centennial Commemoration of the end of World War I on November 11, 1918. The theme for the 2018 Veterans Day Poster is: "The War to End All Wars". The year's poster depicts the remembrance poppy and a barbed wire fence. The poppy has been used since 1921 to commemorate military personnel who have died in war was inspired by the World War I poem "In Flanders Fields". The barbed wire represents the thousands of miles wire that was spread by both sides in WWI.

Read more: <https://militarybenefits.info/veterans-day-posters-2010-2019/#ixzz5VBefM640>



PCARS in CQ Magazine

In the August issue of CQ Magazine, PCARS was recognized as the Hamvention Club of the Year recipients.

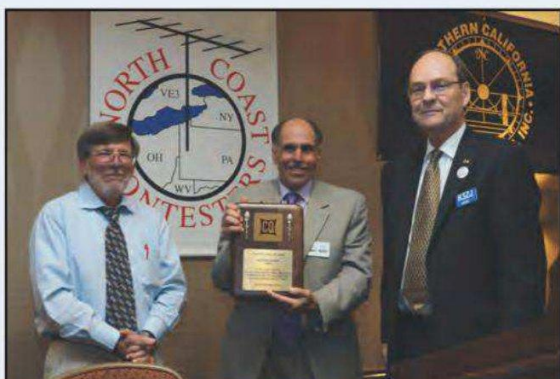


Dayton's Special Achievement Award for 2018 went to (L-R) Herb Perez, KK4DCX; Emilio Ortiz, Jr., WP4KEY; and Victor "Tito" Torres, WP4SD. After Hurricane Maria, Emilio responded to a radio station's request for a ham to come to the station to help get word out about local residents and how they had fared. He then recruited Herb and Tito to join him and the three of them originated more than 4,000 health-and-welfare messages that were delivered to worried family members on the U.S. mainland. *



The 2018 Club of the Year award went to Ohio's Portage County Amateur Radio Club, which in just 12 years of existence has grown to more than 170 members. Built on two founding principles that members "had to DO things" and "had to have fun," the club now has over 40 hours of activities each month and has set a goal of getting more young people, and especially young adults, involved in amateur radio. *

→
"We built this city, this radio city," said Technical Achievement Award winner Nathan "Chip" Cohen, W1YW, of his fellow hams. Cohen was honored for connecting fractal geometry with antenna design, which he has recently extended with a patent for using fractal technology to develop an "invisibility cloak" for aircraft and other large objects. "Fractal antennas are ham-grown," he noted, adding that "we are makers by nature and innovators by choice," but that "we are under leveraging who we are." Cohen says he aims to change that. *



The two newest members of the CQ Contest Hall of Fame were inducted at the Dayton Contest Dinner. In the left-hand photo are 1999 Contest Hall of Fame inductee John Crovelli, W2GD, who introduced 2018 inductee and CQ World Wide 160-Meter Contest Director Andy Blank, N2NT; along with CQ Contesting Editor Dave Siddall, K3ZJ, who presented the award. In the right-hand photo are Siddall and 2018 inductee Tom Wagner, N1MM, who was introduced by John Bednar, K3CT. (Hall of Fame photos by 2017 CQ Contest Hall of Fame inductee Bob Wilson, N6TV)

Big Bang Theory & 73

Larry, N8FTP



I don't know if you 'know' the TV show **Big Bang Theory**, but it's a hoot about nerds working for a California university. Sheldon, one of the principle characters, has a thing for the number 73. Here is why:



As we learn in Big Bang episode 73 (!) "*The Alien Parasite Hypothesis*" the number 73 is actually pretty special.

73 is the 21st prime number. Its mirror, 37, is the 12th and its mirror, 21, is the product of multiplying 7 and 3 and in binary 73 is a palindrome, 1001001, which backwards is 1001001.

We also know that in Morse, 7 and 3 are reciprocals and 73 is 'Best Regards'

Happy Birthday PCARS Members

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

N8SY	Scott	KD8UXJ	Eric	KD8WZS	Zeb
N8ATV	Jerry	KD8ZXB	Janet	KD8ERY	Susan
AC8PR	Keith	K8FEY	Bob	K3GP	George
KE8KKW	Brandon		Denise	K3LR	Tim
KD8RHW	Ed	N8WLE	Nick	KC3JXQ	J.C.
KB8UUZ	Parky	K8STK	Tom	KB3OQV	Kristen
K8BF	PCARS	KD8SJB	Richard	WA8CCU	AI
W8RID	Bob	N8BI	Jack		



Non-Compliant HTs - Not Legal



From CQ Amateur Radio (<http://cqnewsroom.blogspot.com/>)

The FCC has issued a broad warning to importers, retailers and users of certain "low-cost two-way VHF/UHF radios that do not comply with the FCC's (equipment certification) rules ... and are frequently imported into the United States." These include some brands and models that are popular among hams. The FCC points out that devices that operate "only on frequencies that the FCC has allocated for use by Amateur Radio Service licensees, it does not require FCC equipment authorization, and an amateur licensee may use his or her license to operate such radios." However, the same paragraph notes that "(i)f a two-way VHF/UHF radio is capable of operating outside of the amateur frequency bands, it cannot be imported, advertised, sold, **or operated** within the United States without an FCC equipment certification." (emphasis added).

This leaves hams in a quandary – the traditional FCC view on radios capable of operating outside the amateur bands has been that they're OK for hams to use within the amateur bands and on authorized frequencies outside the ham bands, such as those used for MARS (Military Auxiliary Radio System) operation. This new memo, however, suggests that no one, including hams, may legally use these radios at all, if they are capable of operating outside the ham bands. The ARRL says it is in discussions with FCC enforcement officials to try to clarify the situation.

The rule is not new, and you are only caught in the middle if you did not pay attention when you bought your rig. There are "export" models which are not certified with the FCC that are legal in other countries and therefore sold online. There are often copies of the same radio that IS certified. The onus is in the amateur to make sure the radio he/she buys is certified by the FCC:

NOT Certified: https://www.amazon.com/BaoFeng-UV-82L-Radio-Dual-136-174-Portable/dp/B00F4OOMQ0/ref=sr_1_4?s=wireless&ie=UTF8&qid=1540400419&sr=1-4&keywords=uv-82 \$31

Certified: <https://www.amazon.com/BaoFeng-UV-82C-Dual-Band-Transceiver-Earpiece/dp/B00IJHLNE> \$55



If you are operating an HT that does not have an FCC number on the back, the radio is illegal for you to operate in the country. **Also, if you are operating that illegal radio, you are putting your ham license in jeopardy.**

If you tried to save money and bought the \$31 dollar model, you wasted your money. The FCC is not putting hams "in the middle", it's the online retailers

that sell both, and expect the ham consumer to buy the right model. Since the internet doesn't have an address and the distributors are typically overseas, the online vendors on eBay or Amazon offer them to the world, and leave you to sort it out. BaoFeng just sits back and collects the revenue. They haven't broken any laws. **Caveat Emptor.**

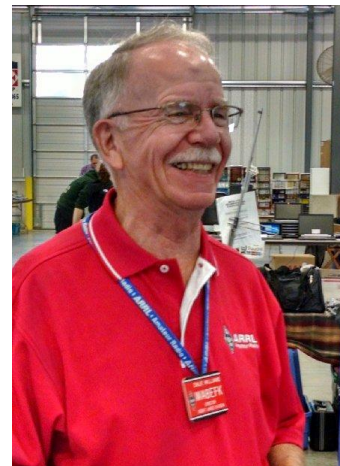
Typically, everyone wants the FCC to take action and enforce the law. Now they are doing just that, and everyone is upset.



From the Great Lakes Director



Dale, W8EFK
ARRL Great Lakes Division Director



Greetings, welcome to "Dale's Tales"

At a recent meeting of the Livonia Amateur Radio Club, I had the opportunity to give a brief presentation about ARRL and many of the benefits it offers to our members. At the usual Q & A session following the talk we discussed the frequent topic of getting more people interested in this great hobby. The current proposal to open certain small segments of the HF bands to Technicians led into the discussion about what age level the Livonia Club found entering amateur radio.

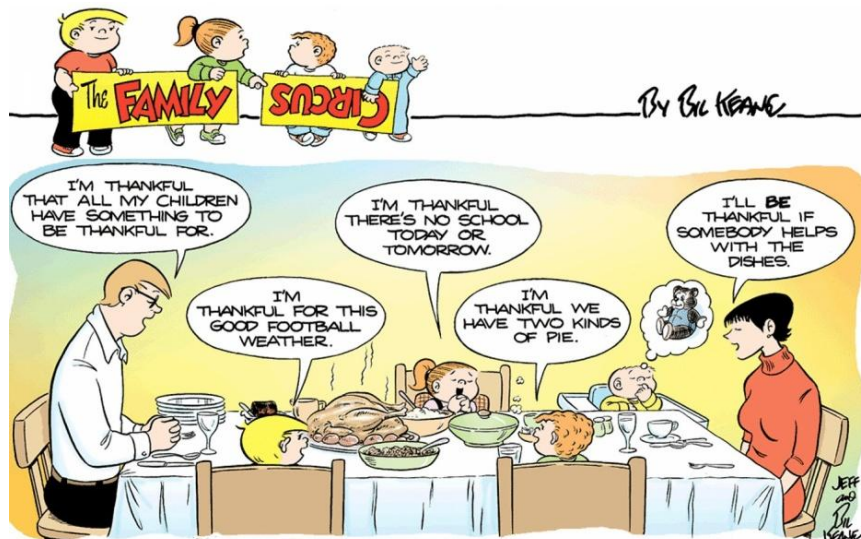
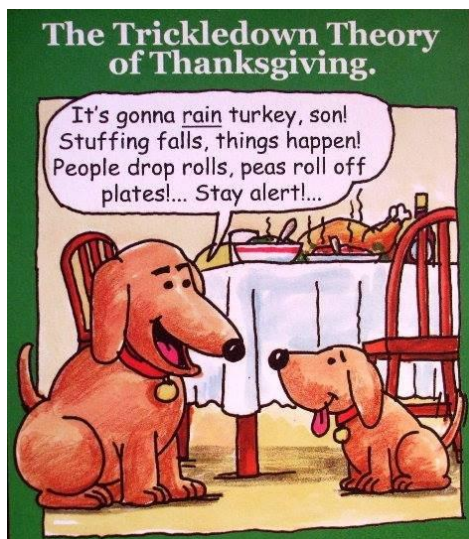
Many groups struggle to bring up the interest level of youth (our prime targets) in ham radio. My recent personal experience has found folks between 35 and 50 becoming hams as they have pretty well raised their families and have reached the point where they may have some discretionary funds to invest in ham gear. Livonia's experience was a bit of a surprise to me: retirees! I think for many of the same reasons I had found in my experience.

In the end analysis, I think this all shows that there is no particular focus for us in bringing our friends in to ham radio. We need to concentrate on everyone, every age group and folks in every endeavor as prime candidates for becoming hams. Now wait! Why do we do this?

Because we need to insure that we keep pace with those who leave the hobby, either because of them becoming Silent Keys, are dissatisfied with the hobby (I know, hard to believe) or have a life that is just too busy for the hobby.

All of this being said, there is one very major point where we seem to fail; that of being good stewards for amateur radio. We fail miserably at mentoring. Period! How many new hams have you mentored this year? Last year? In the last 5-10 years? Take a local sample of how many new hams remained or got active after getting their license. Do a search of how many hams live within a 10 mile radio of your home QTH. How many do you know? How many have you actually met? How many have you talked with on the air?

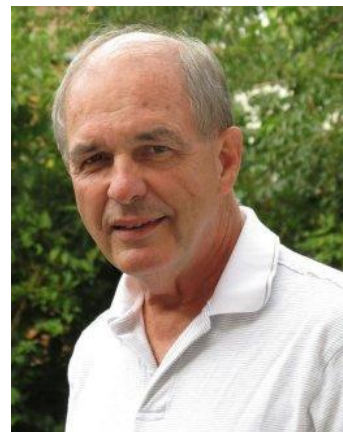
Here comes the confession: I did this yesterday and found 10 within 4 miles of me! OUCH! Here comes the vow: within the next 4 weeks I will make an effort to reach out to each of them, by phone, e-mail, letter or personal visit to learn about their ham activities. We should not allow any new ham to be overlooked or forgotten.



From the Great Lakes Vice Director



Tom, W8WTD
ARRL Great Lakes Division Vice Director



This month, a note in the Wave Bender, the publication of the Western Reserve club in Ohio, caught my attention. (Yes, I do read newsletters that are sent along.) It was a brief note by Steve, KC8SOY, about volunteering for club duties, and the use of repeaters. We've never met, but thank you, Steve, for the reminders.

We all struggle with things like club membership and member involvement. Some clubs try to have activities, and members don't respond. Others don't have as many activities, and so members don't get together very often. In other clubs, even very active ones, the members are engaged and things happen, but leadership positions, even just event planning, let alone officer positions, are hard to find volunteers for. Does your club have a full slate of officers this year? And are people willing to step up and be officers next year?

It's easy to be critical. In today's social environment, there are lots of demands on everyone's time, from family, work, and other interests. A healthy balance says that many of us can't spend any more time than we already do in volunteering, no matter what it is.

From another perspective, what do we value? That's where we put our time. No question, ham radio is not the most important thing in the world. What place does it have in your life? If you like the people you associate with in radio, and the activities interest you, what about putting in some time and effort into a club or an event? Ham radio is a social activity. We don't have one-way conversations. If we want ham radio to survive into the future, we have to keep it going at the local-people-level.

Another thing that Steve mentioned is the use of repeaters. It's clear that we'll never again see activity levels like the 1980s and 1990s. Back then, there was so much activity, much of it mobile. Now I can check my phone app for traffic updates, and don't need to depend on reports from other hams who may or may not be in the vicinity. And I certainly don't need a phone patch.

Is there any value left to repeater communication? It's always there for emergency communications, that is, if we don't lose the frequencies for lack of use. And a good conversation can help us meet other hams, and that promotes familiarity which helps interest in club meetings. Many of us have gotten out of the habit of turning on a radio to monitor. And more of us are reluctant to answer the few calls we hear.

There's a certain amount of criticism here. But those who know me know that I'm an optimist. And as I travel around the Division at meetings and hamfests, I meet a lot of enthusiastic new hams who are just learning about the hobby, as well as dedicated veterans who still love ham radio. To the new people, I'd remind you that you probably have some skill that you could contribute to a club. If you belong to a club, step up. If you don't, try to find one and see if that doesn't help your appreciation of ham radio. And for the old-timers, of which I am certainly one, stay connected! One conversation on a repeater may solve a problem for a new ham, or persuade them to join your club. It's worth keeping that radio on!



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 68 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 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.

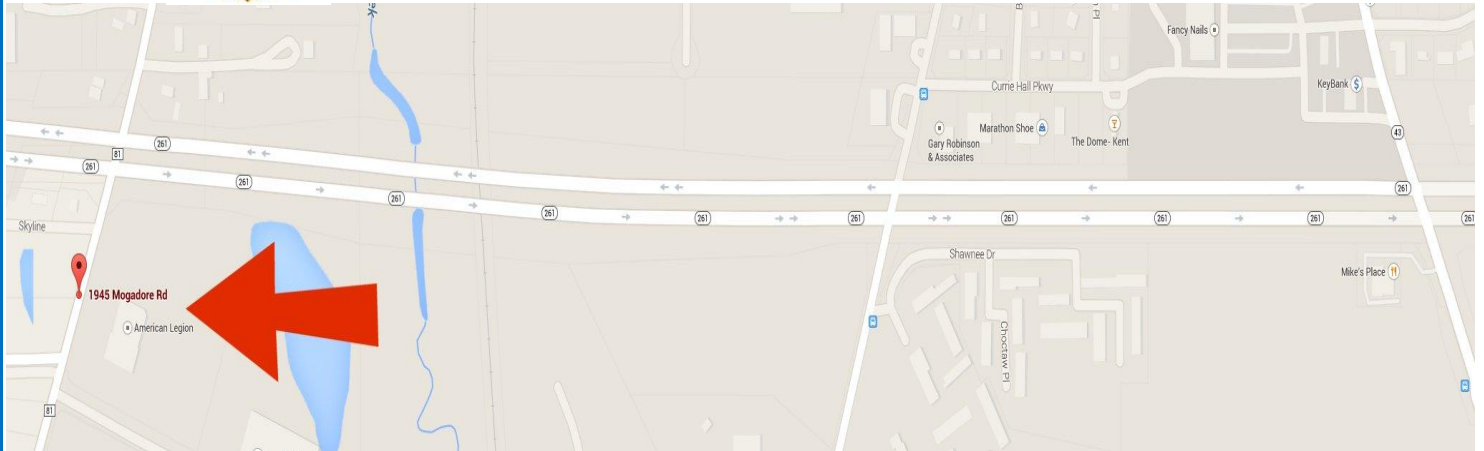


PCARS Meetings

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 October Meeting



PCARS - October 8, 2018



PCARS - October 8, 2018



PCARS - October 8, 2018



Portage County Amateur Radio Service, Inc. (PCARS)

Membership Application [] New [] Renewal

Name: _____ Call Sign: _____ License Class: _____

Address: _____

City: _____ State: _____ ZIP: _____

Phone: _____ E-Mail Address: _____

ARRL Member? [] Yes [] No ARRL Membership Expires Month: _____ Year: _____
Birthday: Month: _____ Day: _____ Year: _____

A \$5.00 initiation fee will be assessed in the first year of membership for all new members.

Membership year is Jan 1 - Dec 31. Dues are due no later than Jan 31st. **If you don't pay by 1/31 - you are no longer a member and you will have to pay the \$5.00 fee again plus dues per the schedule below.**

Dues are as follows: Example - Regular Member Pays on Jan 1st \$20 for entire year. If paid on June 1st, \$15 for entire year, etc.

Check One

Pro-Rated Dues Amount:

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

Call Sign of Regular Member: _____

(*Family = wife, husband, brother, sister, son, daughter, father, mother that is a licensed amateur radio operator and who's FCC license has the same address as the paid regular member's FCC license). Life Membership is available - Contact the club Secretary

Checks can be made out to either "PCARS" - or - "Portage County Amateur Radio Service, Inc."

What are YOUR Ham Radio interests:

Date: _____

Signed: _____

Mail to: Portage County Amateur Radio Service, Inc.
c/o: Gene Marsh, W8NET
3561 Keswick Drive
Kent, OH 44240

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

Rev. 28 Sept 2018

Words of Wisdom from 6th Graders

Insight into the minds of 6th graders: The following were answers provided by 6th graders during a history test. Watch the spelling! **Some of the best in humor is in the misspelling....**

1. Ancient Egypt was inhabited by mummies and they all wrote in hydraulics. They lived in the Sarah Dessert. The climate of the Sarah is such that all the inhabitants have to live elsewhere.
2. Moses led the Hebrew slaves to the Red Sea where they made unleavened bread, which is bread made without any ingredients. Moses went up on Mount Cyanide to get the Ten Commandments. He died before he ever reached Canada.
3. Solomon had three hundred wives and seven hundred porcupines.
4. The Greeks were a highly sculptured people, and without them we wouldn't have history. The Greeks also had myths. A myth is a female moth.
5. Socrates was a famous Greek teacher who went around giving people advice. They killed him. Socrates died from an overdose of wedlock. After his death, his career suffered a dramatic decline.
6. In the Olympic games, Greeks ran races, jumped, hurled biscuits, and threw the java.
7. Julius Caesar extinguished himself on the battlefields of Gaul. The Ides of March murdered him because they thought he was going to be king. Dying, he gasped out "Tee hee, Brutus."
8. Joan of Arc was burnt to a steak and was canonized by Bernard Shaw.
9. Queen Elizabeth was the "Virgin Queen," As a queen she was a success. When she exposed herself before her troops they all shouted, "Hurrah!"
10. It was an age of great inventions and discoveries. Guttenberg invented removable type and the Bible. Another important invention was the circulation of blood. Sir Walter Raleigh is a historical figure because he invented cigarettes and started smoking. Sir Francis Drake circumcised the world with a 100-foot clipper.
11. The greatest writer of the Renaissance was William Shakespeare. He was born in the year 1564, supposedly on his birthday. He never made much money and is famous only because of his plays. He wrote tragedies, comedies and hysterectomies all in Islamic pentameter. Romeo and Juliet are an example of a heroic couple. Romeo's last wish was to be laid by Juliet.
12. Writing at the same time as Shakespeare was Miguel Cervantes. He wrote "Donkey Hote." The next great author was John Milton. Milton wrote "Paradise Lost." Then his wife died and he wrote "Paradise Regained."
13. Delegates from the original 13 states formed the Contented Congress. Thomas Jefferson, a Virgin and Benjamin Franklin were two singers of the Declaration of Independence. Franklin discovered electricity by rubbing two cats backward and declared, "A horse divided against itself cannot stand." Franklin died in 1790 and is still dead.
14. Abraham Lincoln became Americas greatest Precedent. Lincoln's mother died in infancy, and he was born in a log cabin which he built with his own hands. Abraham Lincoln freed the slaves by signing the Emasculation Proclamation. On the night of April 14, 1865, Lincoln went to the theater and got shot in his seat by on of the actors in a moving picture show. They believe the assinator was John Wilkes Booth, a supposingly insane actor. This ruined Booth's career.
15. Johann Bach wrote a great many musical compositions and had a large number of children. In between he practiced on an old spinster which he kept in his attic. Bach died from 1750 to the present. Bach was the most famous composer in the world and so was Handel. Handel was half German, half Italian and half English. He was very large.

16. Beethoven wrote music even though he was deaf. He was so deaf he wrote loud music. He took long walks in the forest even when everyone was calling for him. Beethoven expired in 1827 and later died for this.

17. The nineteenth century was a time of great many thoughts and inventions. People stopped reproducing by hand and started reproducing by machine. The invention of the steamboat caused a network of rivers to spring up. Cyrus McCormick invented the McCormick reaper, which did the work of hundred men. Louis Pasteur discovered a cure for rabbits. Charles Darwin was a naturalist who wrote the "Organ of the Species." Madman Curie discovered the radio. And Karl Marx became the first of the Marx Brothers.

Thanks & 73



Parky, KB8UUZ
PCARS Newsletter Editor



All of our members (and others) look forward to getting this newsletter every month, so keep sending those inputs! I'm sure PCARS 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 rest of 2018 and beyond.

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

AC8NT, WA8AR, WA8UWV, KB8UUZ, WB8LCD, KD8MQ, KA8TOA, W8NET, KB8AMZ, W8PT, W1VE, K5OT, W9JJ, W8KNO, N8FTP, WA8EFK, W8WTD, George Trinkaus, The ARRL, DX Engineering, CQ Magazine, VA.GOV and the World-Wide Web.

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



November 6th is Election Day.
Exercise Your Right to Vote.
Exercise your Civic Duty to Vote.



No matter who you Vote for, no matter what issue you Vote for - Just get out and VOTE.
If you don't vote - you can't complain.

And, on the lighter side (thanks to WB8LCD):

After suffering weak gain at the poles, the National Transistor Party has been trying to energize their base. Two atoms are walking down the street, and one says to the other, "Wait, wait, we have to go back. I've lost an electron somewhere." The second atom says, "Really? Are you sure?" To which the first atom replies, "Yes. I'm positive."



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

~ The Hamvention® 2018 "Club of the Year" ~

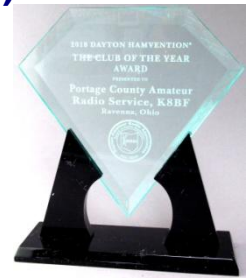


PCARS meets the second Monday of each month at the **Kent American Legion Post 496**, 1945 Mogadore Rd. - just South of Rt. 261 - enter the rear of the building for the meeting room.

Meeting starts at 7:00 pm - All are welcome to attend ~ Stop in and say hello!

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

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



~ 2018 Officers ~		2018 PCARS Appointments & Committees	
President - Jim Wilson - AC8NT Vice President - Tony Romito - WA8AR Treasurer - Amy Leggiero - KD8SKL 3 Year Trustee - Ed Polack - K8IV 2 Year Trustee - Tom Parkinson - KB8UUZ 1 Year Trustee - Erica Pelz - AE8YL Past President - Rick Kruis - K8CAV	ARRL Awards - DXCC WAS, VUCC, WAC	W8KNO	Joe Wehner
	ARRL Awards - WAS	KB8UUZ	Tom Parkinson
	Club Site Manager/Liaison	K8CAV	Rick Kruis
	Contest Coordinator	W8PT	Chuck Patellis
	EchoLink & Web Guru	K8SRR	Steve Randlett
	Field Day Chairman, 2018	WA8AR	Tony Romito
	FYAO Chairman	W8PT	Chuck Patellis
	Historian	KB8SZI	Peggy Parkinson
	K8BF Callsign Trustee	K8FEY	Bob Hewett
	K8BF QSL Manager	K8FEY	Bob Hewett
	Membership Chairman	WB8LCD	Tom Sly
	Net Control Manager	KA8TOA	Greg Ash
	Net Night - Club Manager	WB8LCD	Tom Sly
~ Meetings & Net ~ 2nd Monday of each month. 7pm Thursday night Club Net at 8 pm on 146.895	Newsletter Editor	KB8UUZ	Tom Parkinson
	OSPOTA Chairman	KB8UUZ	Tom Parkinson
	Public Information Officer	WB8LCD	Tom Sly
	Secretary	W8NET	Gene Marsh
	Tech, Gen & Extra Class Manager	AC8NT	Jim Wilson
	Volunteer Examiner Liaison	KB8UUZ	Tom Parkinson
	Webmaster	KD8MQ	John Myers



**PCARS
Active
Volunteer
Examiner
Team
Members**

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



THE RADIOGRAM

PCARS Incorporated
Nov. 1, 2005

First Meeting
Nov. 14, 2005



ARRL Affiliation
April 20, 2006



Special Service Club
March 22, 2010

The **RADIOGRAM** is the official newsletter of the Portage County Amateur Radio Service, Inc. (PCARS) - **Hamvention® 2018 Club Of The Year** - copyright ©2018. The **RADIOGRAM** is an **Award Winning** newsletter: 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. **First Place Newsletter Winner in the Ohio Section for 2017 & 2018 and First Place Newsletter Winner in the Great Lakes Division 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 copyright - 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@gmail.com. The **RADIOGRAM** always obtains written permission for reproducing copyright material. 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!**

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 (this month it's the English Pound) just for fun. Send your newsletter inputs (in .TXT format) along with in-focus pictures (not small 50 kb photos) to the newsletter editor: KB8UUZ@gmail.com



Portage County Amateur Radio Service
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NLC

