



The **RADIOGRAM**

When All Else Fails ~ Amateur Radio Works

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

February 2018 - Volume 13 Number 1

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Feb is FYAO Month



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



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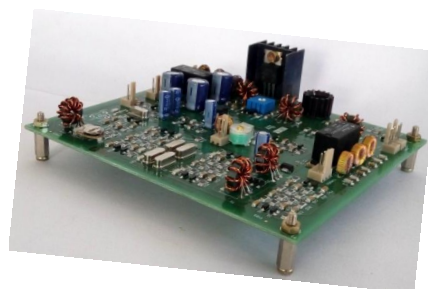
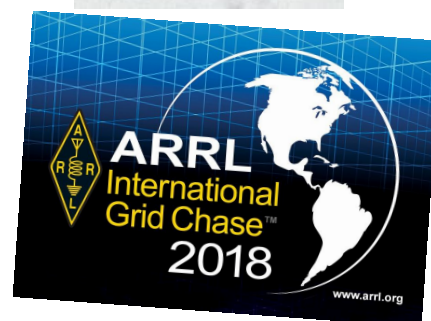
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FYAO 2018
Feb 10th
Fun in the park

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Past ARRL Great Lakes Director Jim Weaver, K8JE - SK



Past ARRL Great Lakes Division Director Jim Weaver, K8JE (ex-WA8COA), of Mason, Ohio, died on January 14. An ARRL Life Member, he was 82. Weaver served as ARRL Great Lakes Division Director for 11 years, from 2003 until 2014, and he was a regular presence at Hamvention® and ARRL EXPO and moderated the ARRL Forum.

During his time on The ARRL Board of Directors, Weaver served on the Administration and Finance, Programs and Services, and CEO Candidate Screening committees. Early in his years on the Board, Weaver was one of the initial members of the Ad Hoc Committee on Grassroots Lobbying.

Within the Ohio Section, Weaver served as an Official Observer from 1997, and as a Public Information Officer from 1996.

For about 10 years in the 1970s and 1980s, he wrote a column on Amateur Radio and the public for the *Cincinnati Enquirer*, "Ham Call". Until recently, he had served as an Official Emergency Station and an Official Relay Station.

Weaver was active in disaster communication and worked closely with the Red Cross in Cincinnati. A long-time member of the Queen City Emergency Net, he was Communications Manager for the club in 1968, and later served as its President in 1976. He was also active in many other clubs in the Cincinnati area, including the Greater Cincinnati Amateur Radio Association. Weaver was an ARRL VEC Volunteer Examiner and a member of the ARRL A-1 Operators Club.

He held a MA in keyboard studies (organ) from College Conservatory of Music, served as a parish music director, and belonged to the Knights of Columbus.

At the Great Lakes Division Convention last October, Weaver was presented with the George S. Wilson III, W4OYI, Lifetime Achievement Award, in recognition his selfless attitude, diversity of ham radio interests, and outstanding contributions to Amateur Radio.

Weaver announced his retirement from the ARRL Board on July 7, 2014. He was succeeded by Dale Williams, WA8EFK. The Great Lakes Division is made up of Ohio, Michigan, and Kentucky.

Editors note: Jim was a PCARS Honorary Life Member and was very helpful to our club when we were getting started. He saw first hand what PCARS was doing as a club and encouraged us to keep going and growing. When I spoke to him at HamCon last October, I again thanked him for all of his help throughout the years for PCARS. He smiled and said he always supports clubs that are doing good things.



From the President

Jim, AC8NT
PCARS President



This month we have been very active.

Club Site

The club site has been managing water leaks. We have redone the VHF room including replacing the old computer and rebuilding the work station. We have not yet scheduled the formal dedication of the VHF room to Jim Aylward, but the plaque has been hung. We expect to reschedule the dedication sometime in April when the weather is more predictable.

We hope to have a solution to the water problem in place soon. The water leaks finally made it to the equipment bench in the Operations room. We need to protect our equipment and still be able to use it. So plastic covering the gear can only be a temporary solution.

Please remember to lock all the doors to the restrooms after use. These doors not only protect our equipment, but also protect the Family Services room. **PLEASE MAKE SURE THESE DOORS ARE CLOSED AND LOCKED!!** Thanks.

Extra Class

It has been a privilege to teach the Extra Class/Electronics program. We have covered basic components and learned how to design a simple transistor amplifier. Future classes will cover the use of operational amplifiers in ham applications, digital applications in the shack, rf systems and antennas. We will be scheduling a couple of Saturday Build Days for completion of experiments and equipment builds. Although these are primarily for the class members, they will be open to all members. Please watch the website for more information and dates.

Our next class, a Technician class, will start in April after completion of the Extra program. Let's do our best to make this starting class a big one. Please help us recruit young and all into the hobby. It is a great place to have fun and learn something new.

Club Dues

Tom, WB8LCD, has been doing a great job getting members to renew. Starting February first, members wishing to renew will be required to rejoin the club including paying the \$5 initiation fee. Please renew as soon as possible. We have a great club, a great facility and a lot of fun.

Up Coming Activities

Don't forget Freeze Your Acorns Off on Saturday February 10. It will be at Fred Fuller Park in Kent as usual. Bring your rig and your favorite dish to share. We always have a great time and sometimes the weather is even OK. On February 3rd we are having a VE test session. It begins at 10 AM. If you know anyone that would like to get their ticket or upgrade tell them to come on out. They must bring photo ID, \$15, and their license if they are upgrading. On Saturday February 17th we are having a GOTA day. If you would like to use the club equipment, make your first HF contact, or maybe get some help with you rig, meet us at the club site. The event starts at 9AM and runs till noon. I am sure that Chuck and others will talk a lot about our upcoming contests. I just want to let everyone know we will be entering some digital (RTTY) contests. I know I plan to take part; how about you.

Combining two Hobbies

I had a new Shack Shot taken. This one shows my hobby of growing orchids. I have been trying to build an orchid antenna. I just haven't found a good way to match them to my rig. Anyhow, I love them as a "second" hobby. Maybe some of you could show us some of your "second" hobbies.

Final Note

I have been working with several young and enthusiastic students. They have studied hard and some have received their General Class tickets. Please when you hear new hams on the air, understand they are just starting out in the hobby and may need some help. Be courteous, under their code speed may be low and the fist a little rough. We need to encourage them as best we can. They are the future of our hobby. At every chance promote this great hobby and help as many as possible to get involved. I know the members of PCARS will help with this effort.

I wish you many great contacts in the coming months and trust you will join us at club events for some "BIG FUN".



From the Vice President

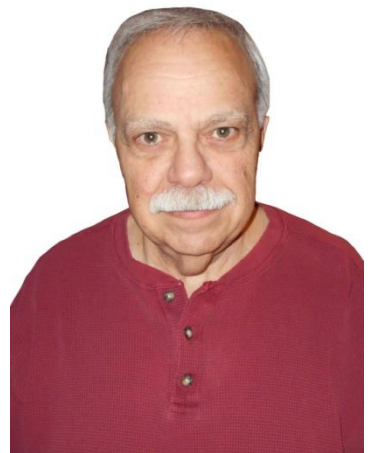
Tony, WA8AR
PCARS Vice President

How (why) Did You Get Into Amateur Radio?

And can we increase the rate we attract new ones?

I can't answer that first question for you, but I can give you the short version of how and why I got into Ham Radio and who all helped me along the road. Way back when I was just starting third grade my friend from down the street was in Cub Scouts. He had just finished project building a crystal radio. When I listened to the little earphone connected to nothing more than a coil of wire, a tiny diode, and a couple pieces of wire and heard a radio station I knew I wanted to build one myself. One of my uncles repaired televisions so he gave me wire and parts; I built my first radio. About that time I discovered my neighbor's old radio that had the names of foreign places labeled on the dial, and I heard my first shortwave broadcast. We also discovered the Heathkit, Lafayette and Allied Radio Electronics catalogs and I was hooked. I got my first Heathkit electronics lab, wired up 25 or 30 different projects within a few weeks and went looking for more! Then in 4th grade I built a pair of walkie-talkies on my own work bench in my basement. My uncle taught us how to solder. I also got my first general coverage shortwave receiver that year and was able to listen to broadcast and ham transmissions. I knew that I wanted to be on there talking with those guys. I read every magazine I could get my hands on and started building circuits using parts I stripped out of old equipment.

About three years later we found out that a friend of my uncle belonged to the 20/9 Radio Club in Youngstown and he volunteered to start taking the two of us to their meetings every month. The club also held licensing classes where they taught us basic electronics and Morse code. Eventually there were three guys the



same age taking those classes along with a couple adults. Finally when I was in the 8th grade, we passed our novice tests, in 1962. Finally I got on the air!!

As we talk about having a hard time getting the youth of today interested in Ham Radio, think about this: those three guys that got their licenses went to two different grade schools and out of all those students at those schools we were the only ones interested that actually did it. We also went to 3 different high schools and our "radio club" numbers grew to a whole 6 or so at each school. For me that was 6 out of a student body of 2,000. That number is 0.3% of that population and the 800,000 hams in the US represent 0.25% of the total population. That percentage seems to represent the "native" interest level of the US population. Also consider the number of adults that pitched in to help those three grade school kids. We have a lot of work to do in order to just maintain our numbers, considering the median age of the typical ham in our population. But if you look at my story you can see that a lot of simple little nudges will keep someone who has a natural interest moving right along. Also note that the vast majority of hams are men, we must find ways to bring more women into the ham community.

I do have one very practical suggestion, when we are trying to convince young people to consider focusing their attention and interests engineering and applied sciences...include this point....if you want a job for the rest of your lives consider getting an education in a practical engineering or science field. Ham Radio will attract a higher percentage of the population who think that way, especially if they are convinced that we can help them get into a great line of work and maybe even like doing their job

Schedule of Events

On the calendar for upcoming meetings and activities are:

- **February 3rd - VE Testing at the PCARS club site - starts at 10 am - Walk-ins welcome**
- **February 10th - 13th Annual FYAO at Fred Fuller Park in Kent - 10 am to 3 pm, set up at 9 am**
- **February 12th - PCARS Meeting at the Kent American Legion - 7 pm**
- **February 17th - GOTA Day at the Club Site - Come in and operate the radios - Elmer will be there**
- **March 10-11th - Idaho & Wisconsin QSO Party Contest - PCARS will be on the air at the club site**
- **April 14th - GOTA Day at the Club Site - Come in and operate the radios - Elmer will be there**

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



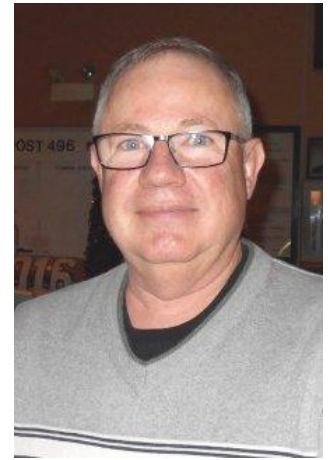
- First Tuesday - **Digital** - Moderator: K8CAV
- Second Tuesday - **QRP/CW** - Moderator: KB8AMZ
- Third Tuesday - **Antenna** - Moderator: WA8AR
- Fourth Tuesday - **DX & Contest** - Moderator: W8PT
- Fifth Tuesday - **Linux for Hams** - Moderator: KB8AMZ

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



PCARS Membership Renewals - Overdue

Tom, WB8LCD
PCARS Secretary



I've been working hard at getting our club renewals up to date, and the Members section of the web site up to date. At the moment I am as current as I can be! If you go to the members section and look at the "stats" - at this point you will see we have an active membership in the club of 127.

Technically, all memberships not renewed by January 31 will be expired as of Jan. 1, 2018. Actually, they show as expired on the website as of now, but I can reinstate as long as renewal is received by 1/31. For mailed renewals I will use the postmark date as the "date paid").

Anyone wishing to renew after that will have to submit a new application to PCARS including the dues and initiation fee, then be voted on at the next meeting. They will be assigned a new membership number. If YOU have not yet taken care of that, please get it to me as quickly as possible so that I can show you on the "active" list! **By the way, you can also pay your dues on the web site using PAYPAL.**

Most importantly, I hope that you will renew your membership in PCARS and make a point of being an active member of the club. It just wouldn't be the same without you!

Portage County Communications Unit

Rick, K8CAV
Portage County Comms Unit



One of the things Amateur Radio Operators do very well is to serve their communities by assisting with emergency communications during incidents or events. Here in Portage County, the Office of Homeland Security/Emergency Management (OHS/EM) provides guidance to elected officials and assistance to local first responders when circumstances require it.

The Communications Unit provides communications assistance to both the OHS/EM at the Emergency Operations, and to first responders in the field when requested. The Communications Unit is an official part of the OHS/EM, and its members are sworn volunteers of that unit.



There are basic FEMA and ARRL educational requirements, and regular participation in training nets, monthly meetings, and drills and exercises is required. These are to maintain proficiency in both the technical aspects of communications, and the operational aspects of operating within the Incident Command System. In order to properly support the Communications Unit mission. We need more volunteers who want to become part of the Communications Unit of the OHS/EM. If you're interested in becoming a member, please send me an e-mail to k8cav.coms@gmail.com and I'll get an information sheet and application to you.

The photo in this article is of members after the December meeting at the EOC in Shalersville Township.

2nd Annual AM Rally Special Event - Feb 2-4

The second-annual AM Rally (<http://www.amrally.com/>) is inviting operators to explore the original phone mode over the February 2-4 weekend. Co-sponsor Clark Burgard, N1BCG, said the event "is intended to be both fun and educational." It encourages all radio amateurs to get on AM, possibly for the first time.



"Because of resurgent interest in AM, the event is also an opportunity for amateurs new to AM to learn about proper settings and get the most performance out of their station, whether it's modern, vintage, tube, transistor, software-defined, military, boat anchor, broadcast, home brewed, or commercially made," Burgard said.



The AM Rally website includes tips and suggestions for various transmitter types as well as links to additional information. Certificates will be awarded for most states contacted and most contacts overall made by stations in five power-output classes. Some "special recognitions" will be made on an ad hoc basis, Burgard said.

The AM Rally gets under way at 0000 UTC on Saturday, February 3, and concludes at 0700 UTC on Monday, February 5. Bands include 160, 80, 40, 20, 15, 10, and 6 meters.

The 2017 AM Rally, which was held in April, was deemed a huge success (<http://amfone.net/Amforum/index.php?topic=42770.0>), with nearly 1,500 contacts reported on the 72 logs submitted.

Happy Birthday PCARS Members

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

KD8FLZ	Mike	DiCarro
KD8DFL	Ray	Larrick
KB8SK	George	Boggs

KC8YYS	James	Albright
KB8CLH	Vivian	DeSimio
WV8P	David	Germ



Planning for Field Day 2018

Tony, WA8AR
Field Day Chairman



Continued Field Day planning has mainly centered on figuring out ways that we can enhance our point score without sacrificing any of the things we did last year to turn in such a great performance. I will be presenting my plan to the FD team this month and getting their input. One thing that we are bringing back for sure is the GOTA station. While this will probably yield a very small number of points it will be a significant part of our efforts to get new hams into our hobby. Even calling it a hobby is a bit of an understatement, since it can play such a key role in developing technically oriented young minds. Jim, AC8NT, will be the GOTA Station Captain.

We have four positions remaining to be filled on the Field Day Team:

Food Service Director: Responsible for putting on the Saturday dinner and Sunday breakfast. This is a key position as dinner is a big social element of Field Day for PCARS and of course we need to keep those operators fed so they have the fuel to make all those contacts!

Antenna Crew Chief: Responsible for assembling a team of volunteers to put up all of the station antennas for Field Day. This was a new position we added last year and it worked out very well with all antennas ready for operation by about 12:30, well before the FD start time of 2 pm. I have a document that this year's crew chief can use as a guide.

Transportation Crew Chief: This is a new position this year. The crew chief will be responsible for assembling a small team to load the box truck that brings all the equipment to the FD site. Considering the distance to the FD site we just can't afford to leave any equipment behind. In the past we just put out a general call for volunteers to show up and help. We need to have a specific crew list that we can count on to be there. The crew chief also needs to coordinate closely with the station captains so there is a good manifest of items that must go on the truck.

I'm also looking for someone to do an Educational Program as well. Any member wishing to volunteer for any of these positions please contact me at: tromito99@gmail.com

The QST email system is still down, but we hope to have a new system operational before I schedule the February FD meeting, so that any interested club member can attend if they are interested

Chairman	Tony WA8AR	CW Station Captain	George K3GP
Co Chairman	Mike KB8TUY	Flex Station Captain	Rick K8CAV
Safety Officer	Karen N8HUC	VHF Station Captain	Mike KB8TUY
Public Info. Officer	Tom WB8LCD	20 Meter Station Captain	Erica AE8YL
On-Site PIO & media table	Tom KB8UUZ	40 Meter Station Captain	Ed K8IV
Antenna Crew Chief	TBN	GOTA Station Captain	Jim AC8NT
Transport Crew Captain	TBN	Power Team Captain	James KD8VT
IT Managers	Steve K8SRR	Food Service Dir.	TBN
	Zeb KD8WZS	Educational Program	TBN

Note: The NEW **Transport Crew Captain** will be responsible assembling volunteers to load all equipment on to the box truck going to the FD site and reload it for the return trip to the club site.

Code of Conduct for Directors Under Review

From the ARRL



The ARRL Board of Directors took action on a number of items at its Annual Meeting, January 19-20, in Windsor, Connecticut, including adopting a motion to review the entire code of conduct for Board members, known officially as the **ARRL Policy on Board Governance and Conduct of Members of the Board of Directors and Vice Directors**. ARRL Officers, Directors, and Vice Directors will review the code of conduct and complete a final draft version 60 days ahead of the Board's July 2018 meeting.



The ARRL Board met January 19-20 in Windsor, Connecticut. (L-R) ARRL Second Vice President Brian Milesosky, N5ZGT -- who did not stand for re-election; ARRL First Vice President Greg Widin, K0GW, and ARRL President Rick Roderick, K5UR, who chaired the sessions.

In the same motion, the Board deleted and suspended sections that were considered ambiguous and in conflict with the intent of the code of conduct requiring Board members to act in the best interest of the League's membership. Also, the Board suspended Section 8 of the code, "Support of Board Decisions," until after the complete review is acted upon. Both actions are effective immediately.

The Board also voted unanimously to amend a policy affecting candidates for ARRL elected

offices, including Directors and Vice Directors. The new policy calls for candidates to be informed in writing at the outset of the nomination process that decisions of the Board's Ethics and Elections Committee concerning candidate eligibility will be made public unless the candidate requests otherwise. In addition, if the Ethics and Elections Committee rejects a candidate's petition, the candidate may ask that the reason(s) for rejection not be made public. Unless confidentiality is requested within 10 business days, the reason(s) for rejection may be made public.

A proposed addition to the **ARRL Articles of Association** regarding the personal liability and indemnification of Directors will be reviewed by the Executive Committee, the General Counsel, and ARRL Connecticut corporate counsel. Proposed amendments to the **ARRL Bylaws** regarding Life Membership were referred to the Administration and Finance Committee for further consideration.

It was decided that if these or any additional changes are proposed, they will be made available to the membership and will be accompanied by explanatory "white papers" before the Board considers action on them.

The Board approved an amendment, effective immediately, to Section II, Rule 1 of ARRL's **DXCC Rules** (Political Entities) that will confer DXCC entity status to an entity that has its own International Amateur Radio Union (IARU) **member society** and is included on the US Department of State's list of **Independent States in the World**. In 2004, the Board had removed a rule that extended DXCC status by virtue of having been admitted as an IARU member society.

In other action, the Board approved a motion requiring that minutes of Board meetings be published only after being formally approved by the Board.

The Board unanimously adopted ARRL's 2018-2019 financial plan. Up to \$30,000 was allocated to fund the discovery and strategy phase of the Lifelong Learning Initiative. The Board will receive a progress report on the project at its July meeting.

Addressing administrative matters, the Board unanimously adopted a motion to form a CEO Search Committee to identify a candidate for Chief Executive Office for Board election. The committee, which is authorized to engage a search consultant, will report periodically to the Board and at the July meeting. Committee members will include Treasurer Rick Niswander, K7GM (chair), Central Division Director Kermit Carlson, W9XA; Roanoke Division Director Jim Boehner, N2ZZ, West Gulf Division Director Dr. David Woolweaver, K5RAV, and First Vice President Greg Widin, K0GW.



(L-R) ARRL Vice President for International Affairs Jay Bellows, K0QB; Radio Amateurs of Canada President Glenn MacDonnel, VE3XRA; IARU President Tim Ellam, VE6SH, and ARRL Atlantic Division Director Tom Abernethy, W3TOM.

Editor's Note: Have you been seeing e-mails and blogs over the last few months about everything going on at ARRL headquarters? Many individuals and clubs have questioned the activities of the ARRL Board.

Check out “myARRLvoice” on the web at www.myarrlvoice.org

“For more than 100 years, the American Radio Relay League (ARRL) was the organization we’ve trusted to openly serve its membership and advocate for amateur radio in the United States. Over the past two years, that has changed... by a range of troubling policy and governance actions taken by the League’s leadership.



The purpose of myARRLvoice is to inform fellow ARRL members and to encourage them to convey their feelings to the ARRL Board and management.”

Hamfest Calendar

02/18/2018 - InterCity ARC Hamfest - Location: Mansfield, OH - Sponsor: InterCity Amateur Radio Club - Website: <http://www.w8we.org>

03/04/2018 - Winter Ham Fest - Location: Elyria, OH - Sponsor: Northern Ohio Amateur Radio Society - Website: <http://noars.net>

04/14/2018 - Cuyahoga Falls ARC's 64th Annual Hamfest - Location: Cuyahoga Falls, OH - Sponsor: Cuyahoga Falls Amateur Radio Club - Website: <http://www.cfarc.org/hamfest.php?festnow=2018>

Ham Radio in 2018

Tom, WB8LCD
Ohio ARRL Section
Affiliated Club Coordinator



Happy New Year to you All! I hope that 2018 brings you Peace, Happiness, Joy, and a renewed sense of awe with our wonderful hobby: Amateur Radio.

Every year on new year's day, multitudes of people move into the new year, armed with a list of "resolutions". These resolutions have the common intention of making their lives better. Why is it then that so many of us give up on them so quickly? I'm betting that by the time this article gets read, multitudes of resolutions have already been broken. That's sad. The distance between failure and success is really only about 5 to 8 inches! That's right, about the distance between your ears. This entire battle is fought in your mind. It's a simple error in judgment that causes us to not have the 10-20 minutes we need to spend on the exercise bike. It's a simple error in judgment that leads us to start the diet "tomorrow". It's a simple error in judgment that says I'll upgrade my license next time, I'll try that new mode later on, I'll work that contest / DX / Special Event station next year. Ask yourself this question: Which is the greater pain? The pain of discipline, or the pain of regret? When you get to the end of your days, and all you can say is "I wish I would have...", you'll know the answer to that question.

A number of years ago I read an article in the QRPARCI magazine about a ham that was not happy with his performance as a ham radio operator. He made it his goal to have at least 1 qrp / cw QSO per day. He started working at it, and keeping meticulous records. While I don't remember exactly, at the time I read that article he had 15+ years completed, and very few days missed! He set a goal (resolution), stuck to it, and kept the necessary records to verify it. He was a ham in the UK and was widely known as a successful operator.

Have you ever thought about setting goals (resolutions) for your participation in Ham Radio? Why not? We do it all the time in business, and other aspects of our lives. Lots of times we get stuck on the "hardware" of the hobby. If I only had that new wiz/bang radio, antenna, mic, morse key, power supply, or whatever..... Maybe all you need to motivate yourself to "Ham Radio Greatness" is some goals, and a plan to accomplish those goals! Setting big goals is good, but remember, attaining your goals is a process, not an event. You wouldn't set the goal of going to San Francisco, and then just sit back and wait for it to happen. It doesn't work that way. You've got to determine your mode of transportation, plot a course, make arrangements for lodging, pack all the right stuff.

Let's presume you want to be known as a "successful" ham radio operator. First you need to define what you mean by "successful". What exactly would make you successful? DXCC? Then you've got to start doing the things that will get you the Q's you need. More knowledgeable about the art and science of radio? Then you'll need to plan your studies accordingly. Just have fun talking to interesting people on the air? Then you'll need to set up a functional station and get your butt in the operating chair! It's all really pretty simple, yet most of us don't set goals, and lots of times really don't feel like we're getting anywhere!

If you're serious about Ham Radio (and I really hope you are) here are a few things that should **not** be your goals!

- 1) Never missing an episode of a certain TV show. Ouch. Do I sit down to watch that show, or do I go down to the shack and see which bands are open? Do I sit down to watch that show, or do I go to the club meeting to see what other hams are doing and helping them to enjoy the hobby.***

- 2) Never help anyone else when they put out the call. Are you kidding me? What could be better than learning while helping someone? Not mention helping yourself! Be that guy that's always there to help out.
- 3) Never try new things that come about in the hobby. Right now, sunspot cycle near the bottom, do you sit there looking for SSB Q's, only to be disappointed, or are you on the air with all the new digital modes that have sprung up? Modes where Q's are being made, despite the conditions. I've heard an old guy with a handi-talkie and a Tech license talk about his 40+ years of experience as a ham. NO WAY! He's had 1 year of experience, and then just done it over and over again for 40 years. Never learning, never growing! You know what they say about getting stuck in a rut – once it gets 6 ft deep, put a wall to the front and the rear, all you need is a top and you're in a coffin!
- 4) Don't support or be a part of the ARRL. I've said it before – I'm a total shill for the ARRL. No, I don't think they're perfect – neither am I. But, and this is a BIG BUT: They are what we've got and despite some of the little things that affect us as individuals that we all gripe about, they have done a FANTASTIC job through the years protecting our interests against government, military and business interests that would just as soon see us gone. They are vital to our continued existence.
- 5) Don't promote the hobby. Don't talk to your kids or grandkids. Don't offer to talk at their schools, scout meetings, churches, or anyplace else you could get into. We talk about the average age of a ham being 60 years +. If we don't get new blood into our ranks, our numbers will start dwindling. Right now we see a surge in numbers, I'm guessing mostly from middle aged guys who now have time and money and want to do the things they missed out on as a youth. Based on our ages, that growth is not sustainable. We have to do something to bring a younger generation in.
- 6) Don't be friendly to new hams both on the air and in our clubs! Self-explanatory!

So there you go. I've saved you the trouble of figuring out some of the things you shouldn't be doing or setting as your goals for 2018. So, what are you going to do? How about setting some realistic ham radio goals for 2018, and then sending the list (even if it's just one thing). I'll include them in next month's update. Hint: You've got to send me some to include – I can't just put in cricket chirps! tomsly29@gmail.com .

What about me you ask? I will spend more time on the air, and experiment with the newer digital modes. I will continue my involvement with my local club and all of its activities and events. I will make a point of getting to meet and many of you as possible, both in person and on the air. I will attend more hamfests and club meetings (other than my own) this year. Look for me – I'll be out there.

It's a new year. It can be a new beginning for a ham radio experience that will be the best ever!



PCARS VE Test Sessions

Robert, N8RLG
PCARS VE Team Liaison



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

**February 3rd, April 7th, June 2nd, June 23rd at Field Day,
August 4th, October 6th, December 1st**

**Special VE Session - Wednesday - March 21st - 7 pm
at the PCARS club site for the end of the Extra Class
Walk-ins for Tech, General or Extra testing are welcome**

What to Bring to the Testing Session

- \$15 is the current test fee. We prefer the exact amount in cash or a check made out to: *ARRL-VEC*
- A government photo ID (**driver's license or state ID card preferred**).
- Your Social Security Number or FCC Federal Registration Number. We are required to submit either your Social Security Number (SSN) or your FCC Federal Registration Number (FRN) with your application. If you are upgrading, your FRN is on your current Amateur Radio license.
- A pen (black ink) and pencil (we can loan you either or both)
- **If you already have an Amateur Radio license: One copy of any current (*unexpired*) amateur radio operator license issued to you.**
- If you've already passed a test: The original (**and one copy**) of any document that you will use to prove you've already passed a test element. These documents may include:
 - An unexpired Certificate of Successful Completion of Exam (CSCE) indicating the credit(s) earned indicating the credit(s) earned.
 - Original and copy of a pre-March 21, 1987 Technician license (this provides credit for the Element 3 [General] exam) - you must be currently licensed to get this credit.



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



New Technician License Question Pool



The National Conference of Volunteer Examiner Coordinators (NCVEC) has announced the release of the 2018-2022 Amateur Radio Element 2 Technician class license question pool into the public domain. Each question pool must be published and made available to the public prior to its use as a question set, from which individual examinations are developed.

Alert the NCVEC Question Pool Committee to any necessary corrections or typographical errors via email at, gpcinput@ncvec.org.

The new Technician license question pool contains 428 questions. It will become effective for all Technician class license examinations starting on July 1, 2018.

Files containing the question pool are available in PDF (Portable Document Format), Microsoft Word .DOC format, and .TXT format. Three figures are used in the pool, and these are available as separate .jpeg and .pdf files.

2018-2022 FCC Element 2 Technician Class Question ([http://ncvec.org/downloads/2018-2022 Tech Pool.docx](http://ncvec.org/downloads/2018-2022_Tech_Pool.docx))

2018-2022 FCC Element 2 Technician Class Question ([http://ncvec.org/downloads/2018-2022 Tech Pool.txt](http://ncvec.org/downloads/2018-2022_Tech_Pool.txt))

2018-2022 FCC Element 2 Technician Class Question ([http://ncvec.org/downloads/2018-2022 Tech Pool.pdf](http://ncvec.org/downloads/2018-2022_Tech_Pool.pdf))

2018-2022 FCC Element 2 Technician Class Question Pool Graphics ([http://ncvec.org/downloads/2018-2022 Tech Graphics.pdf](http://ncvec.org/downloads/2018-2022_Tech_Graphics.pdf))

Graphic T-1.jpg (<http://ncvec.org/downloads/T1.jpg>)

Graphic T-2.jpg (<http://ncvec.org/downloads/T2.jpg>)

Graphic T-3.jpg (<http://ncvec.org/downloads/T3.jpg>)

Members of the 2017-2018 Question Pool Committee:

Chairman - Rol Anders - K3RA, Laurel VEC

Perry Green - WY1O, ARRL-VEC

Ralph Roberts - W5VE, WCARS-VEC

Larry Pollock - NB5X, W5YI-VEC

Jim Wiley - KL7CC, Anchorage-VEC

Contributions: Tom Ryder - W6JS, GEARS-VEC

Followup: NCVEC Question Pool Committee Releases Errata to New Technician Question Pool

The NCVEC Question Pool Committee has announced some errors in the 2018-2022 FCC Element 2 (Technician class) Question Pool released on January 8.

These changes have been made in the download files as of January 12: T1F11 - Distractor A; change "They" to "The"; T4A01 - Change to correct answer; correct answer is D; T5B13 - Distractor A; change "GHZ" to "GHz"; T6A07 - Modified question. "What electrical component is usually constructed as a coil of wire?" T8C08 - Distractor A; change "VOIP" to "VoIP."

ARRL VEC teams are advised to check the NCVEC website at <http://www.ncvec.org/> regularly for updates to the Question Pool, which may include errata and withdrawn questions. The new Element 2 Question Pool goes into effect on July 1, 2018.

Board Re-Elects Rick Roderick, K5UR as ARRL President

From the ARRL



Incumbent ARRL President Rick Roderick, K5UR, has been re-elected by the League's Board of Directors for a second term. The Board convened for its Annual Meeting on January 19-and 20. President Roderick, the League's 16th President, received 9 votes, while the only other nominee, New England Director Tom Frenaye, K1KI, received 6 votes.

Current ARRL Chief Financial Officer Barry Shelley, N1VXY, was elected as Chief Executive Officer, to replace Tom Gallagher, NY2RF, who announced his retirement on January 18 after 2 years at ARRL Headquarters. Gallagher will step down on March 2. Shelley will serve until the Board selects a new CEO and is expected to serve in an advisory role to assist with the transition beyond that. The Board will create a CEO Search Committee. Shelley was unopposed as ARRL Board Secretary.

ARRL First Vice President Greg Widin, K0GW, was declared re-elected without opposition. Incumbent ARRL Second Vice President Brian Milesosky, N5ZGT, did not stand for re-election, and Pacific Division Director Bob Vallio, W6RGG, was elected to succeed Milesosky. Vallio received 8 votes to 7 votes for the only other candidate for Second Vice President, Northwestern Division Director Jim Pace. Vallio's election means that incumbent Vice Director Jim Tiemstra, K6JAT, will succeed him as Pacific Division Director, creating a vacancy for Vice Director in that Division, which will be filled by appointment.

In other election news, incumbent Vice President for International Affairs Jay Bellows, K0QB, was unopposed for re-election. Incumbent ARRL Treasurer Rick Niswander, K7GM, was re-elected without opposition. The Board elected current ARRL Comptroller Diane Middleton, KC1BQF, as Chief Financial Officer, to replace Shelley.

The Board also chose members for its Executive Committee. Elected to the EC on the first ballot were new Dakota Division Director Matt Holden, K0BBC; Director Frenaye; Roanoke Division Director Jim Boehner, N2ZZ, and **Great Lakes Division Director Dale Williams, WA8EFK**. Delta Division Director David Norris, K5UZ, was elected on the fourth ballot to fill the remaining slot.

The Board elected Directors Milesosky, Norris, and Frenaye to new 3-year terms on the ARRL Foundation Board. Details on other business the Board conducted during the Annual Meeting will be forthcoming.



Paper Chase - World Radio Day

Joe, W8KNO

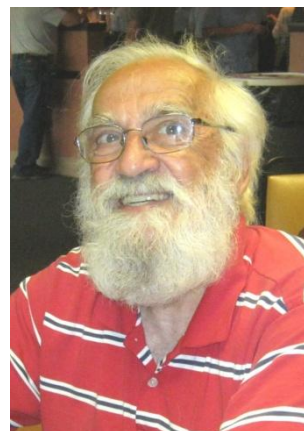
From 13 to 20 February 2018 Special event station **4U0R** will be active on HF by CW / SSB from Vienna International Center, Austria.

The World Radio Day seeks raise awareness about the importance of radio, facilitate access to information through radio and enhance networking among broadcasters. Radio has to be recognized as a low cost medium, specifically suited to reach remote communities and vulnerable people: the illiterate, the disabled, women, youth and the poor, while offering a platform to intervene in the public debate, irrespective of people's educational level. Furthermore, radio has a strong and specific role in emergency communication and disaster relief. There is also a changing face to radio services which, in the present times of media convergence, are taking up new technological forms, such as broadband, mobiles and tablets. However, it is said that up to a billion people still do not have access to radio today.

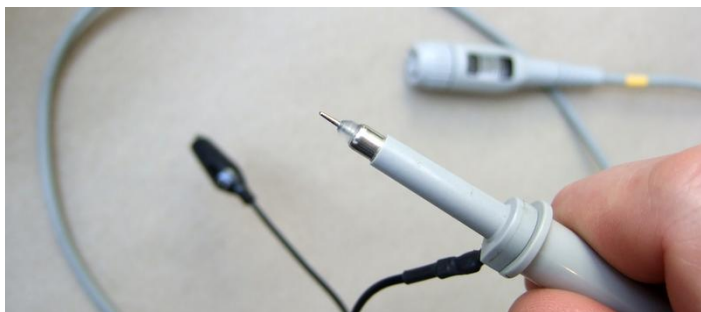
On November 3, 2011, the 36th General Conference of UNESCO approved the creation of the World Day of Radio. The initial idea came from the Spanish Academy of Radio four years ago, therefore, the Permanent Delegation of Spain to UNESCO formally present the proposal at the session 187 of UNESCO's Executive Board in September 2011.

4U0R (Non-DXCC Entity)
UNITED NATIONS ARCDXC - Contest DX Club
P.O.Box-100 VIC,
Vienna. Austria. 1400
United Nations

QSL:
UA3DX
Nick I. Averyanov
Cvetnoj bul, 9-130,
Vlasikha, Mosk. obl. 143010
Russia



How an O-Scope Probe Works



Jenny List

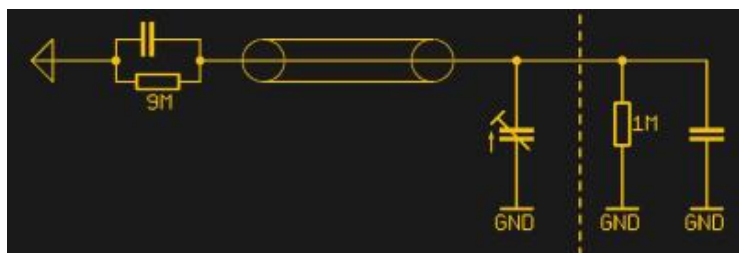


The oscilloscope is probably the most versatile piece of test equipment you can have on your electronics bench, offering a multitude of possibilities for measuring timing, frequency and voltage as well as subtleties in your circuits revealed by the shape of the waveforms they produce.

On the front of a modern 'scope is a BNC socket, into which you can feed your signal to be investigated. If however you simply hook up a co-axial BNC lead between source and 'scope, you'll immediately notice some problems. Your waveforms will be distorted. In the simplest terms your square waves will no longer be square.

Why is this? Crucial to the operation of an oscilloscope is a very high input impedance, to minimize current draw on the circuit it is investigating. Thus the first thing that you will find behind that BNC socket is a 1 meg ohm resistor to ground, or at least if not a physical resistor then other circuitry that presents its equivalent. This high resistance does its job of presenting a high impedance to the outside world, but comes with a penalty. Because of its high value, the effects of even a small external capacitance can be enough to create a surprisingly effective low or high pass filter, which in turn can distort the waveform you expect on the screen.

The answer to this problem is to be found in your oscilloscope probe. It might seem that the probe is simply a plug with a bit of wire to a rigid point with an earth clip, but in reality it contains a simple yet clever mitigation of the capacitance problem.

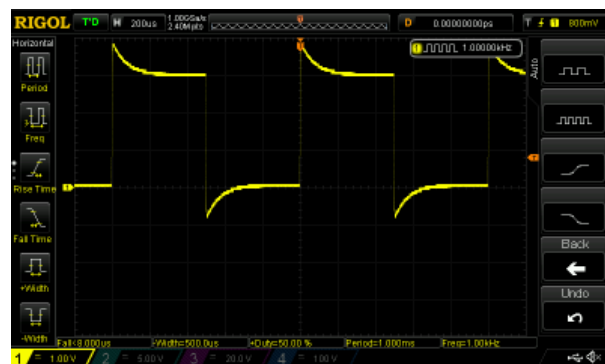


The circuit diagram of a typical passive oscilloscope probe.
[CC BY-SA 3.0]

The majority of passive oscilloscope probes contain an attenuator to both isolate the circuit under test from the capacitance of the cable, and compensation capacitors in parallel with each of the resistances to cancel out the effect of the capacitance of the cable. The attenuator is usually chosen to divide the input voltage by ten, hence you will see "10x" probes. The reading on the 'scope is then a tenth of the voltage at

the probe, for example a 1 V level will measure as 100 mV. Many 'scopes will automatically convert this to the true figure if their settings indicate the probe type.

One of the compensation capacitors will be adjustable, to fine-tune the response. The 'scope will have a calibrated square wave output, usually at 1 kHz, to which the probe is attached, and then the capacitor is adjusted until the wave displayed on the screen is truly square. Too much capacitance and the probe has the effect of a low-pass filter, while too little and it becomes a high-pass filter. It should become a semi-regular part of bench maintenance to check your probe against the



The effect of a badly adjusted oscilloscope probe, a distorted square wave.

calibration terminal, and to adjust it accordingly if the displayed waveform is not a square wave.

HIGHS AND LOWS

The probe is designed to present a high impedance to a circuit in situ, and not to distort the resulting displayed waveform. However there are times when it is necessary to measure an output that expects a low impedance, such as a 50 ohm source. In this situation the source must be terminated with the same impedance, so it should be fed into a 50 ohm resistor.



Some 'scopes have a 50 ohm input mode, making this a matter of button pressing. Otherwise, a measurement can be made across the termination resistor, but since the impedance has now been reduced to a point at which small capacitances no longer have a significant effect, it becomes unnecessary if the cable to the oscilloscope is reduced to the barest minimum. In these cases you can dispense with the probe entirely if you have a BNC T-piece and a 50 ohm terminator, and put both terminator and T-piece on the end of your cable directly coupled to the BNC socket on the 'scope.

For many readers this basic primer on the operation of an oscilloscope input and probe will be old hat. But I remember my first oscilloscope, and how it gave me odd-looking results because I was too young to have been taught about probe compensation. When you get your first 'scope it's tempting to think that the 'scope is the main event, without realizing that it's only as good as how you connect it to your circuit under test.



HACKADAY

Originally Posted on: <https://hackaday.com/2017/03/15/how-an-oscilloscope-probe-works-and-other-stories/>

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

Check Your Ham License

Daryl, WX1DER

On one net, I asked "Without looking at your ham radio license, do you know its expiration date??" 95% of the respondents said "NO". At a license exam session I did awhile back, one examinee, who thought he had a General Class license was SHOCKED to find out that it had actually been expired over 2 years, and as a result, it was WORTHLESS. He had to start completely over, exam wise.

Obviously, operating without a license can get a Notice Of Violation or worse from the FCC. For that matter, the same applies to ones Drivers License, etc.

I personally don't think it's that much to ask to know the expiration of ones licenses...ham radio, drivers licenses, or otherwise. Not knowing it could cause real problems.



Grid Chase 2018 Update

Tom, WB8LCD

Have you all taken a look at this yet? You better get going as almost every QSO you make, starting January 1 thru December 31 will count towards your score! I think this is a fantastic follow up to the National Parks on the Air contest. It shows that the people at the ARRL are tuned into the fact that Ham Radio is BIG FUN, and, if you want to be a part of that BIG FUN, you've got to be on the air! This looks like one of those events that could get a lot of people on the air looking to make some contacts – I hope you plan on being a part of it.



I haven't taken the time to find out exactly how many grid squares there are in the world, how many there are in the US or how many there are in OHIO. I do know there are 3077 Counties in the US, and "worked all counties" is a pretty tough one to come up with. I do know there are some pretty rare counties, I wonder if there will be some rare Grids that capture people's attentions.



The way it's set up, it almost appears to be 12 separate contests (the monthly scores) that all get added together to end up with the year end total score. Multiple contacts with the same station(s) count as long as they are in different months. Multiple contacts with the same stations count in the same month if they are on different band/mode combinations. By the way, all bands from DC through Light are fair game (with the exception of 60 meters). Plus, you can use CW / Voice / Digital modes for your contacts, each counting as a separate qso point!

I see a lot of opportunity here for competition among individual hams, maybe even between clubs and/or ARRL Sections.

Here's my suggestion for each one of you: Put your butt in the chair and get on the air! Starting January 1, 2018 you need to start cranking out Q's. Get your Logbook Of the World going and get those qso's submitted each month. Get your CW skills tuned up and build your speed while you rack up more points. Get going with the digital modes of your choice. Fix up those antennas and feedlines for maximum performance.

Forget about athletes, TV/Movie stars, celebrities and politicians. After all, they really don't care about you! Spend your time doing something with the Greatest Hobby in the World – Ham Radio!



Antenna SIG

Tony, WA8AR



The Antenna SIG meets at 7 PM in the PCARS club site radio room on the third Tuesday of every month. The February meeting will be held on 2/20/18. All PCARS members and guests are welcome to attend. We will be discussing all antenna related topic including selection, design, construction, trouble shooting and safety for all Amateur Radio bands. Although we will generally have a designated monthly discussion topic please feel free to bring in any antenna related problem to the meeting and discuss it with the group.

This month we will be showing a great movie: “*Stand Up for Standing Waves*”. This is a lecture done by a very experienced engineer who uses a desktop transmitter and feed line to visually illustrate a variety of conditions that produce different standing wave patterns. If you want to really understand standing waves come out and watch it with us. We will be showing the movie on the big screen in the radio room so seating is limited to about 20, and will be first come first serve! The movie will start promptly at 7:05 and runs about 1 hour & 46 minutes. There will be a discussion period after the movie.

As a follow up to this presentation, Jim, AC8NT has requested that our Antenna SIG group build a version of the standing wave demonstration device that he can use when he goes on the road to do his own presentations, and for use in training at our club site. I will try to have a sketch of what we need to build at the meeting. Volunteers can get together and figure out the best way to put this together.

Please note that the PCARS QST email system is still not functioning, however we do anticipate that a new system will be operational in the near future. Until then, always check the PCARS web site for Antenna SIG updates or cancellations before going to the club site.

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



The Good Old Days

Tom, WB8LCD

History is repeating itself and that could be to our advantage. I was born in the early 1950's. I grew up in the Golden Age of the Muscle Car. Remember that 1964 Chevy Impala SS, 327cid? Lots of fantastic vehicles that are now just toys for those of us that grew up with them. The 60's were the "Good Old Days" for most car buffs.



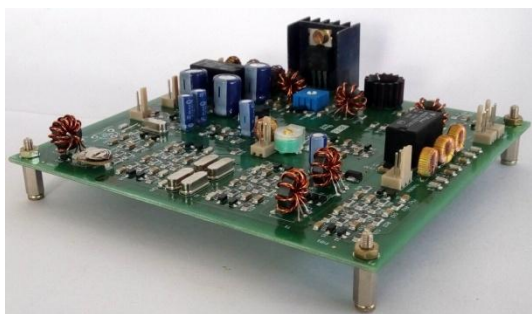
And I was one of them. But wait, there's more! Have you really looked close at some of the cars being offered today? Chrysler, Chevy, Ford all have some modern day rocket ships you can drive right off of the showroom floor! We're talking horsepower in the 500+ ranges. We're talking serious performance with modern technologies. I submit to you, that even though it's not as out in the open as it once was, the "car culture" is still alive and we are currently in the second, and probably the last, Golden Age of Muscle Cars.



Concurrent to that, the 50's and the 60's were probably also the Golden Age of Ham Radio. Many of us consider them the "Good Old Days" of ham radio activity. Think about the old gear and the stuff we all wish we could have at the time! Anyone have that Heath-kit "Sugar Baker" lineup across their operating desk? Think about the Collins, Hammarlund, Clegg and many other manufacturers that had all kinds of neat stuff to fill your shack with. But wait, there's more! Have you really looked close at some of the radio gear being offered today? Icom, Kenwood and Yaesu still hang on to the market lead, but there's a ton of really neat stuff starting to show up both on the market and on the air.



Elecraft started as a small maker of qrp kits and has morphed into a force to be reckoned with! Some of the best (and most expensive) radio you can get. But on the bottom of the scale there is also a lot of excitement. I just got a from www.hfsignals.com in India. For \$69 (including expedited shipping) it's a 40 meter SSB transceiver with digital read out. It's called a "kit", but it comes to you with all the board mounted parts assembled on 3 boards. Your job is to wire up all the "off-board" connectors and controls, and come up with some sort of a custom cabinet to house it all. This is a fantastic project for an inexperience builder who wants to get started melting some solder. It's pretty much a kit that is going to work when you've finished it. Not only is that a confidence builder for the new tech, but you end up with a really cool radio, too!



Back in the 60's there was lots of cool equipment to pick from, and we're starting to see some pretty neat stuff out there using new technologies again. But, back in the 60's we also had SUNSPOTS! HF propagation was hot! What we didn't have back then was digital signal processing and digital modes of communications. FT-8 is more than making up for the lack of sunspots! Trouble is, it's new, and a lot of old guys in our hobby don't like "new". But look at it this way, all that stuff in the 60's was "new" back then too. It's time to

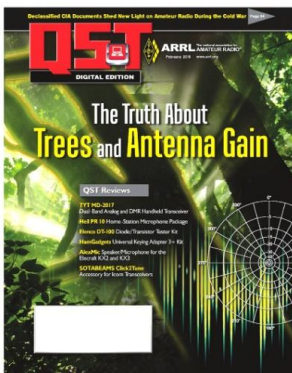
embrace the future and move into the next “Golden Age of Ham Radio”! Take advantage of the new technology and the new hams that now how to employ it. I guarantee you’ll have more fun than just sitting on one 40 meter frequency with a kilowatt, talking to the same old guys about the “Good Old Days”.

One more thing.... Being involved with PCARS from day 1, I’ve seen a lot of really neat things happen with the club over the last 12 years. We’ve done some really neat stuff and had some really solid accomplishments. We’ve had a lot of fun. But...that’s all just been “coming of age” kind of stuff. We’ve been paying our dues, building relationships, becoming a known quantity. We are now sitting on the edge of our history where our future could be the “**Golden Age of PCARS**”! For many of us it will be just that. For many of us, it may not seem that way. What’s the difference? The difference is what your commitment and involvement will be over the next 5-10 years not only to PCARS but to Amateur Radio in general. You can stand on the sidelines, watch what’s going on, make a couple of Q’s every now and then, avoid making any commitments to the hobby or to PCARS, only participate if and when it’s convenient, don’t try to do or learn anything new and especially don’t be open to the new and diverse range of people who may have an interest in Amateur Radio! You will be left in the dark.

To everyone else: **Welcome** to the new *Golden Age of Amateur Radio* and the *Golden Age of PCARS*! Hang on tight, it’s going to move fast and be a lot of fun. I’ll probably be seeing you at least once or twice a week over the next couple years!

QST Magazine - PCARS is in the February Issue

Check it out ! PCARS is in the February issue of QST magazine. On page 85 there is a short article and nice picture about PCARS donation to the Center of Hope



Strays

Hams Giving Hope

In November 2017, the Portage County (Ohio) Amateur Radio Service donated \$6,445 to the Center of Hope, an organization dedicated to enhancing the nutrition of low-income people in Portage County where local food pantries are not present. Hot meals are offered at no cost 5 days a week and are typically served to 75 – 100 individuals each day. Groceries are available monthly through the Christian Cupboard. Opportunities for socialization, cooking classes, and referral services are also offered.



From left to right: Rick Kruis, K8CAV, outgoing PCARS president; Mark Frisone, Executive Director of Family and Community services, parent organization of the Center of Hope, and Jim Wilson, AC8NT, incoming PCARS president.

www.arrrl.org February 2018 85

PCARS
Join Now
Discover the FUN



FYAO 2018
Feb 10th
Fun in the park

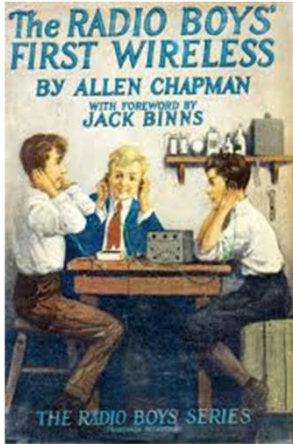
FYAO 2018
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Fun in the park

FYAO 2018
Feb 10th
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FYAO 2018
Feb 10th
Fun in the park

FYAO 2018
Feb 10th
Fun in the park

Radio Boys



Larry, W2LJ

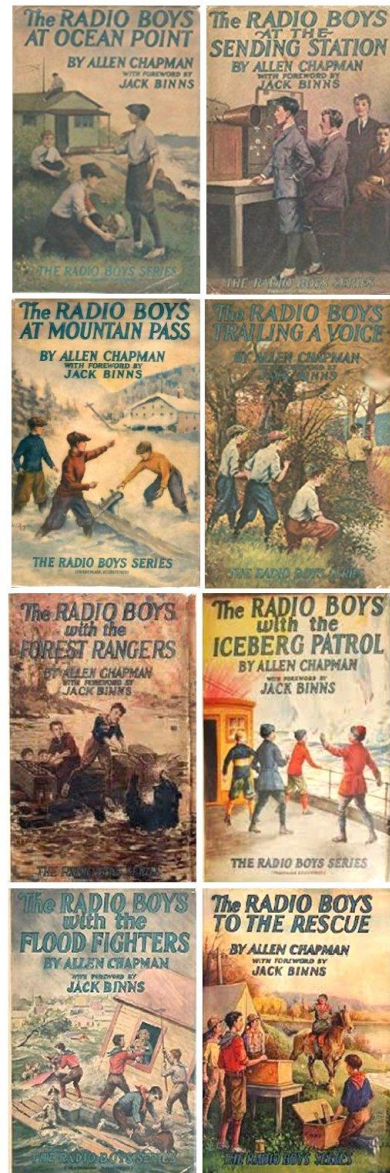
QRP - When you care to send the very least!



Some more oldies, but goodies. This list was posted on QRP-L by Mike Olbrisch KD5KC - The Radio Boys series. These books are in the same genre as The Hardy Boys or Tom Swift, but these deal with "wireless" and go back to the early 1920s when Amateur Radio was still in its infancy.

For those of you with a kindle, these can be download for FREE from Amazon.

1. The Radio Boys' First Wireless
<https://www.amazon.com/gp/product/B008476T3S/>
2. The Radio Boys at Ocean Point
<https://www.amazon.com/gp/product/B004TSAZWM/>
3. The Radio Boys at the Sending Station
<https://www.amazon.com/gp/product/B004TQF6BE/>
4. The Radio Boys at Mountain Pass
<https://www.amazon.com/gp/product/B006T5TLSM/>
5. The Radio Boys Trailing a Voice
<https://www.amazon.com/gp/product/B004TRF6S6/>
6. The Radio Boys on the Mexican Border
<https://www.amazon.com/gp/product/B004TIJRP8/>
7. The Radio Boys on Secret Service Duty
<https://www.amazon.com/gp/product/B00AQMFGFB0/>
8. The Radio Boys in the Thousand Islands
<https://www.amazon.com/gp/product/B00AQMZS86/>
9. The Radio Boys' Search for the Inca's Treasure
<https://www.amazon.com/gp/product/B004Z0MNBU/>
10. The Radio Boys Rescue the Lost Alaska Expedition
<https://www.amazon.com/gp/product/B0058KSAW2/>
11. Radio Boys Cronies
<https://www.amazon.com/gp/product/B0084806YQ/>
12. Radio Boys Loyalty: Bill Brown Listens In
<https://www.amazon.com/gp/product/B004TRO448/>
13. The Radio Boys with the Revenue Guards
<https://www.amazon.com/gp/product/B004UKEU2A/>



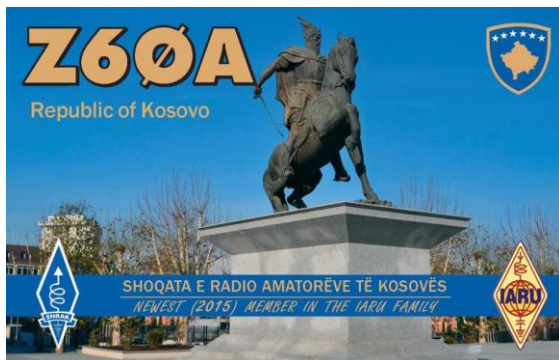
So yeah, the stories are a bit campy, perhaps and the language and slang is old - but what the heck? They're free and they're almost 100 years old! I downloaded them all to my kindle and am enjoying them. I hope you will, too!

Z60A is On The Air

Tom, KB8UUZ



Now is your chance to get a brand new DXCC entity - Kosovo!! They are on the air and not that difficult to make contact with.



The Z60A operation from Kosovo, the latest DXCC entity, continues apace from the headquarters of Kosovo's IARU member society SHRAK. The operation also commemorates the 10th anniversary of Kosovo's independence. The group of operators was reported to be "in good spirits and keeping Z60A activated as much as they can with their other duties."

Noise from LED lighting has presented a challenge after dark, generating noise up to S-8. Z60A will add bands to its repertoire, including 160 and 17. Logs are being uploaded to Club Log, but Internet access is reported to be "very sporadic," and uploads could be delayed.

Only contacts with Kosovo (Z6) after 0000 UTC on January 21, 2018, are valid for DXCC credit.

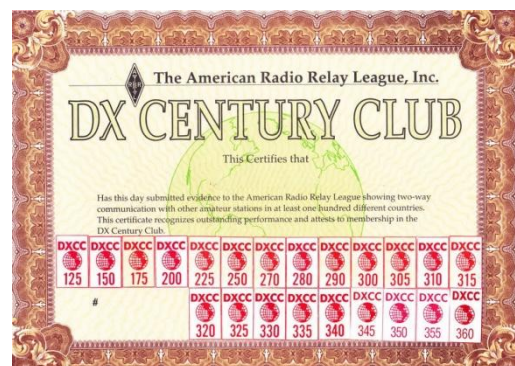
Thanks to The Daily DX for this information.



Amendment to ARRL DXCC Rules Expands DXCC List

From the ARRL

The ARRL Board of Directors approved a motion to amend the DXCC Rules, when it met January 19-20. Section II, Subsection 1 of the DXCC Rules now will include a new Subsection (d): The entity has a separate IARU member society (<http://www.iaru.org/member-societies.html>) and is included on the US State Department Independent States in the World (<https://www.state.gov/s/inr/rls/4250.htm>).



"The discussion during the Board meeting and the rule change did not address any specific entity," ARRL Radiosport Manager Norm Fusaro, W3IZ, said. "The amendment could allow some additions to the current DXCC List of entities. It's a good thing not only for DXCC but for all active hams."

In fact, the Republic of Kosovo (Z6) has been added to the DXCC List of current entities, increasing the total number of current DXCC entities to 340. The addition of Kosovo raises to 331 the required number of current entities confirmed to qualify for DXCC Honor Roll; Top of Honor Roll is 340. DXCC award accounts are being tabulated to reflect the change. **This change qualifies as an "event," effective on January 21, 2018, at 0000 UTC. Nothing is retroactive.**

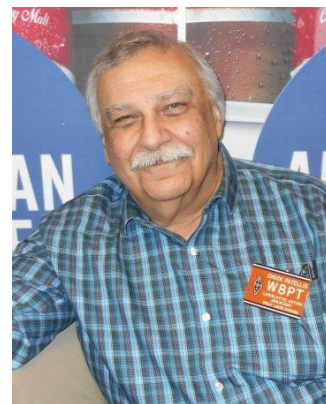
A new Logbook of The World (LoTW) TQSL configuration file (v.11.4) will be released on January 23. TQSL will detect when this file has been released and will install the update automatically. Radio Amateurs outside of Kosovo should continue to upload their logs to LoTW in the usual manner. LoTW users within Kosovo (either with a Z6 call sign or reciprocal call sign Z6/<home call sign>) will use TQSL to request a new call sign certificate for their call sign. The request will use Republic of Kosovo as the DXCC entity, and the QSO Begin date will be January 21 or later. LoTW will reject call sign certificate requests for the Republic of Kosovo with a QSO Begin date prior to January 21. Z6 users requesting call sign certificates may e-mail a copy of their Amateur Radio license.

Kosovo's IARU member society SHRAK (<http://www.shrak.org/en/>) and its president Vjollca Caka, Z61VB, are hosting a 10th-anniversary activation to celebrate Kosovo's independence in February, 2008. SHRAK Headquarters station Z60A now is active on several bands with multiple guest operators. Club Log will be used for this activation, while QSLs are via OH2BH

DX/Contest SIG

Chuck, W8PT

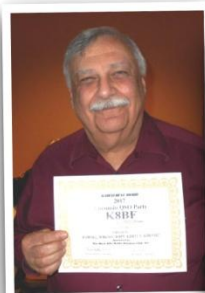
Our DX/Contesting Special Interest Group meeting will be held on February 27th at 7PM at our club site. We will briefly review the rules for the upcoming Idaho and Wisconsin QSO parties that take place the weekend of March 10-11. We may address some highlights from the RTTY contest that takes place the weekend before our meeting.



Hopefully, we will also have enough time to view a DVD on the J5T DXpedition to Guinea Bissau that took place November of last year.

So hope to see many at the meeting.

Certificates for operators in the 2017 Wisconsin QSO Party were handed out to those that we at the meeting.



FYAO 2018
Feb 10th
Fun in the park

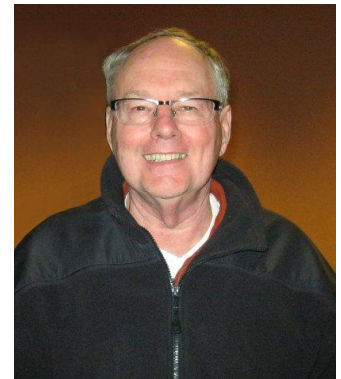
FYAO 2018
Feb 10th
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FYAO 2018
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Fun in the park

FYAO 2018
Feb 10th
Fun in the park

FYAO 2018
Feb 10th
Fun in the park

Jim, AC8NT



Did you ever ask how resistor values were selected? As a long time teacher I have had more than a few students ask why resistor values seem so strange. Why aren't they simply every 10 ohms (i.e. 100,110,120 etc). Why were values like 12,15,47 selected? These are very good questions that deserve an answer.

First a little history. After World War II there was a strong push to develop standards for the electronics industry. Television, radio and audio equipment manufactures need a reliable supply of components whose values could be relied upon. In 1948 the International Electrotechnical Commission started working on standards the first of which (IEC Publication 63) was released in 1952. This publication listed the first list of standard numbers for components.

The purpose of these numbers was to cover a decade with values manufactured at a specified tolerance. These numbers would be used for resistors, capacitors and inductors. The numbers had NO relationship to electronic designs at the time. The values would be in equally spaced buckets that could be manufactured to unique values at a specified tolerance.

How about a simple example? Consider a 45 and 50 ohm resistors manufactured to 10% tolerances. The part marked 45 could range from 40.5 to 49.5 and the part marked 50 could range from 45 to 55. As you can see parts that were manufactured with actual values of between 45 to 49.5 could be marked with either a 45 or a 50. This in effect is wasted manufacturing was very confusing to the designer.

Let's look at the figure 1. It shows the values for components manufactured to a 10% tolerance. Note picking the values is not as easy as you might imagine. Each value must not overlap any other value. These buckets will produce unique part values. As you can see each value "bucket" does not overlap any other bucket. For 10% values you can have 12 buckets as shown with values of 1.0, 1.2, 1.5, 1.8, 2.2, 2.7, 3.3, 3.9, 4.7, 5.6, 6.8, 8.2.

As tolerance values drop more buckets will fit, 5% allows 24 and 1% allows 96. However not all the values in the 24 list are also included in the 96 list.

If you are buying 1% resistors instead of 5% resistor you will find the following 5% values in the list of 1% values: 1.0, 1.1, 1.3, 1.5, 2.0, 7.5

You can buy a 1000 ohm resistor in both 5% and 1% tolerances. However, the following values in the 5% list do not exist in the 1% list. 1.20, 1.60, 1.80, 2.20, 2.40, 2.70, 3.00, 3.30, 3.60, 3.90, 4.30, 4.70, 5.10, 5.60, 6.20, 6.80, 8.20, 9.10

You can't buy a 240 ohm resistor in 1%. These differences often create bill of materials that show 1%, 5% and 10% tolerance values not because of actual tolerance requirements, but simply because a particular value is required.



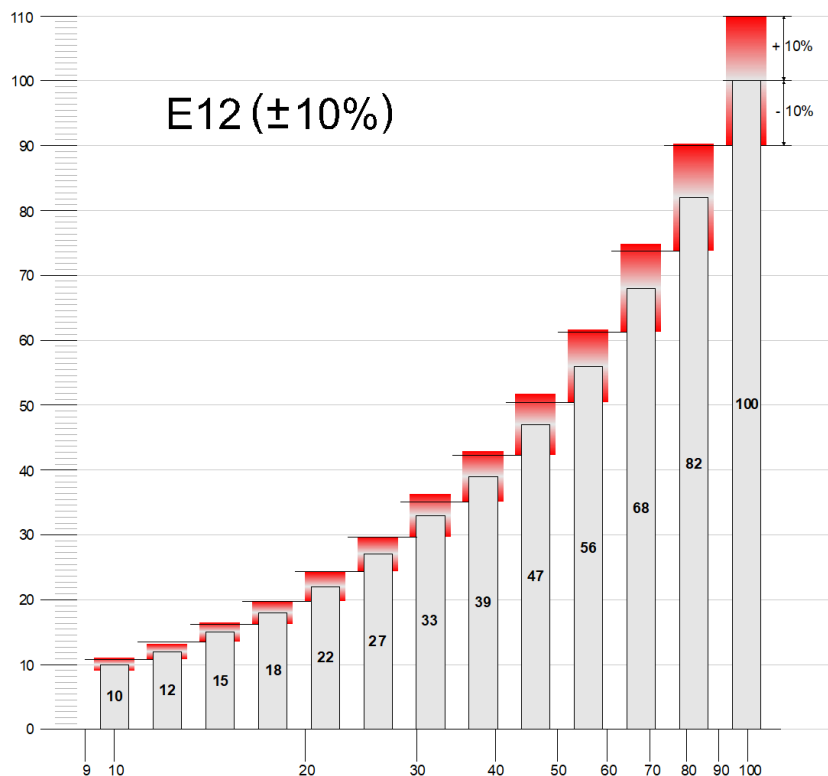


Figure 1

Each of the buckets in a list is usually manufactured in successive decades for example a value of 12 produces resistors of 12, 120, 1200, 12k, 120k etc.

As you can see there is reason to the part number madness. They weren't numbers picked out of the air to confuse engineers and hobbyist. If you interested the the table showing all the value numbers for a wide range of tolerances view the link below.

https://en.wikipedia.org/wiki/E-series_of_preferred_numbers

A 2260 Ω , 1% precision resistor with 5 color bands (E96

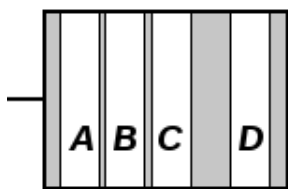
series), from top 2-2-6-1-1; the last two brown bands indicate the multiplier ($\times 10$), and the 1% tolerance. The larger gap before the tolerance band is somewhat difficult to distinguish.



To distinguish left from right there is a gap between the C and D bands.

- band **A** is the first significant figure of component value (left side)
- band **B** is the second significant figure (some precision resistors have a third significant figure, and thus five bands).
- band **C** is the decimal multiplier
- band **D** if present, indicates tolerance of value in percent (no band means 20%)

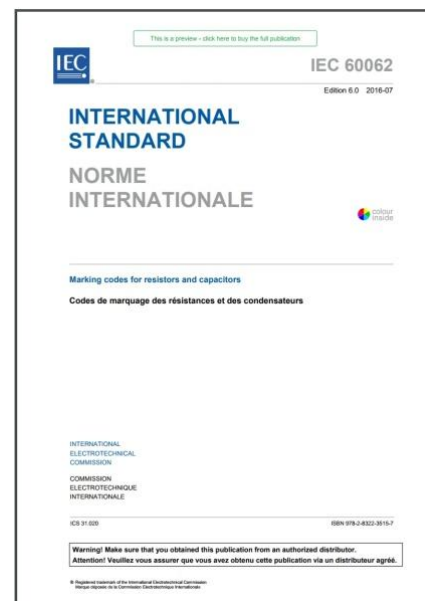
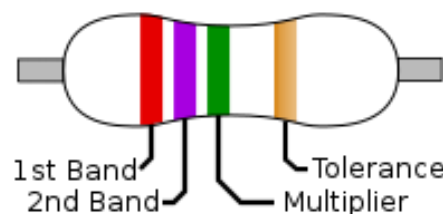
For example, a resistor with bands of yellow, violet, red, and gold has first digit 4 (yellow in table below), second digit 7 (violet), followed by 2 (red) zeros: 4700 ohms. Gold signifies that the tolerance is $\pm 5\%$, so the real resistance could lie anywhere between 4465 and 4935 ohms.



Resistors manufactured for military use may also include a fifth band which indicates component failure rate (reliability); refer to MIL-HDBK-199 for further details.

Tight tolerance resistors may have three bands for significant figures rather than two, or an additional band indicating temperature coefficient, in units of ppm/K .

All coded components have at least two value bands and a multiplier; other bands are optional.



The standard color code per IEC 60062:2016 is as follows:

Ring color			Significant figures	Multiplier		Tolerance		Temperature coefficient	
Name	Code	RAL				Percent	Letter	ppm/K	Letter
None	—	—	—	—	—	±20%	M	—	—
Pink	PK	3015	—	$\times 10^{-3}$ ^[5]	$\times 0.001$	—	—	—	—
Silver	SR	—	—	$\times 10^{-2}$	$\times 0.01$	±10%	K	—	—
Gold	GD	—	—	$\times 10^{-1}$	$\times 0.1$	±5%	J	—	—
Black	BK	9005	0	$\times 10^0$	$\times 1$	—	—	250	U
Brown	BN	8003	1	$\times 10^1$	$\times 10$	±1%	F	100	S
Red	RD	3000	2	$\times 10^2$	$\times 100$	±2%	G	50	R
Orange	OG	2003	3	$\times 10^3$	$\times 1000$	—	—	15	P
Yellow	YE	1021	4	$\times 10^4$	$\times 10000$	(±5% ^[nb] 11[6])	—	25	Q
Green	GN	6018	5	$\times 10^5$	$\times 100000$	±0.5%	D	20	Z ^[nb 2]
Blue	BU	5015	6	$\times 10^6$	$\times 1000000$	±0.25%	C	10	Z ^[nb 2]
Violet	VT	4005	7	$\times 10^7$	$\times 10000000$	±0.1%	B	5	M
Gray	GY	7000	8	$\times 10^8$	$\times 100000000$	±0.05% (±10% ^[nb] 11[6])	A	1	K
White	WH	1013	9	$\times 10^9$	$\times 1000000000$	—	—	—	—

One decade of the E12 series (there are twelve preferred values per decade of values) shown with their electronic color codes on resistors



A 0 Ω resistor, marked with a single black band

Resistors use preferred numbers for their specific values, which are determined by their tolerance.



These values repeat for every decade of magnitude: 6.8, 68, 680, and so forth. In the [E24 series](#) the values are related by the 24th root of 10, while E12 series are related by the 12th root of 10, and E6 series by the sixth root of 10. The tolerance of device values is arranged so that every value corresponds to a preferred number, within the required tolerance.

Zero ohm resistors are made as lengths of wire wrapped in a resistor-shaped body which can be substituted for another resistor value in automatic insertion equipment. They are marked with a single black band.^[7]

The 'body-end-dot' or 'body-tip-spot' system was used for radial-lead (and other cylindrical) composition resistors sometimes still found in very old equipment; the first band was given by the body color, the second band by the color of the end of the resistor, and the multiplier by a dot or band around the middle of the resistor. The other end of the resistor was colored gold or silver to give the tolerance, otherwise it was 20%.

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 !!

February	
1	K8IV
8	N8QE
15	AC8NT
22	NR8W

March	
1	KB8TUY
8	KA8TOA
15	KB8UUZ
22	AC8NT
29	K8CAV

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 for this year anyone interested please contact me.

April	
5	K8IV
12	KB8UUZ
19	WB2DFC
26	KD8SKL

PCARS Wants to hear from YOU



If you have not been a Net Control Operator for PCARS and would like to give it a try, *please* contact me at: KA8TOA@portcars.org

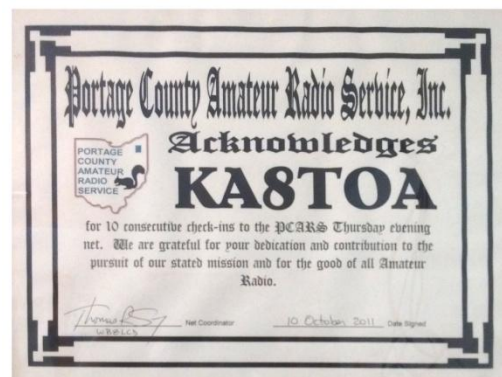
Everyone who is a club member is welcome to have a turn - and have fun being Net Control !

Please 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 see if you can trade with someone.

I've been working on checking the Thursday night net logs for 10 consecutive check-ins, but missing some logs. Please forward them to me via email as soon as you can.

I have 3 candidates for the 10 consecutive check-in award. They are: Dan - N4RRE, Bill - KE8HNL and Norm - KE8HQB.

Certificates will be mailed out in awhile. A few people just missed it by one check in.





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



FYAO Coming Up Soon

Chuck, W8PT
FYAO Chairman

All of you know how cold it has been lately. So what better time than to - **FREEZE YOUR ACORNS OFF!!** On Saturday, February 10th, we will once again be meeting in the Roy Smith Shelter House located in the Fred Fuller Park - 497 Middlebury Rd., Kent, OH, to take part in our annual Special Event. It is our **13th annual, Freeze Your Acorns Off QRP Event** sponsored by PCARS.



This first event took place on a very cold Saturday in February of 2005. There was no snow on the ground yet, but the temperature and the wind kept reminding us that just perhaps the hand full of PCARS members out in this weather, were a tube or two shy of a complete rig.



The event has grown over the years and now many members take part either setting up stations or just coming out to be with fellow HAMS to cheer the faithful (and still crazy) ops who set up stations in the frigid cold.

Last year, of course, was the warmest FYAO in our short history. So the planners have looked to the WX spirits to see if they can offer something more challenging for 2018. In any event, you are encouraged to come on out and help make this 13th annual event, the fun event it has been for the past 12 years.

We will start to gather at 9 am which is when the set up starts and the actual operations begin at 10 am and go until 3 pm.

Activity will be in the General portions of the bands of 6, 10, 15, 20, 40 and 80 meters. The modes as in the past are CW and SSB and of course it's all QRP.

We will have at least one station operating using the club call of K8BF which, when contacted, will earn the caller a certificate suitable for framing.

Don't forget that there is a **Best Recipe Cook-Off Contest** that takes place also. So clean out the slow cookers and crock pots and break out your recipe books and bring something that shows your culinary skills.

Check the flyer in this newsletter giving you the important info regarding FYAO for 2018 and see the PCARS web site where you can also download the official rules for the event.

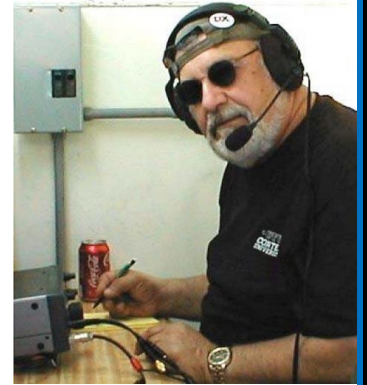
Hawaiian style shirts are encouraged to show mother nature a little cold weather never hurts us.....

Keep that Saturday open and mark your calendars. Come on out and join us.



Charlie the Tuner's HF High-Lites

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



I'm still trying to thaw out from the recent cold WX. But one day of 50+ degrees followed by three days of 15 degrees or worse, does not make it easy. Some of you have asked if my SteppIR is still working. The answer is yes and quite nicely I might add. I've added Eritrea and Kosovo to my list of DXCC worked and am looking forward to the various DXpeditions and mini DX events that are coming up in the near future.

Shifting gears on you, I hope that many of you have ordered your tickets for Hamvention. I have mine on order as well as tickets to the DX dinner. The dinner is always a great time and you get to have great conversations with many well know DXers and can pick up several tricks of the trade.

So let's take a look at what will be happening DXwise in the coming months.

Here is something that you folks who like to play with the digital modes might be interested in. HELPFUL FT8 OPERATING GUIDE. Gary, ZL2IFB, has written an "FT8 Operating Guide" to help his fellow HF DXers make good use of the new digimode: http://www.g4ifb.com/FT8_Hinson_tips_for_HF_DXers.pdf

Thanks to the Northern Ohio Amateur Radio Society, Northern Ohio DX Association, Ohio/Penn PacketCluster Network, ARRL Bulletins, AB5K & the AR TelNet Clusters Network, N1DG, NJ1Q & W1AW, K3LR, NG3K & ADXO, W3UR & The Daily DX, WB6RSE, W7GJ, K8GI, K8YSE, W8GEX & 60m DX News, DL1SBF, DL7UXG & The DX News Letter, DxCoffee.com, DXNews.com, DX-World.Net, ES1CW, F6AJA & Les Nouvelles DX, I1JQJ/IK1ADH & 425 DX News, I2MQP & DX Italia News, OZ6OM & 50 MHz DX News, Sixitalia Weekly, and VA3RJ & ICPO and the WIA Website for the following DX information.

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

3D2/R, ROTUMA ISLAND (Reminder). Ops Tony/3D2AG, Heye/DJ9RR, Erno/DK2AMM, Hans/DL6JGN and Ronald/PA3EWP will be active as 3D2EU from Rotuma Island (OC-060) between February 23rd and March 16th, 2018. They will have two radio locations on the western peninsula of Rotuma. One in Fapufa in the south. This is the annual QTH of Tony. The second QTH is in Maftoa on the north coast. This is a joint operation using the resources of Tony and the European group. Activity on 160-10 meters using CW, SSB and the Digital modes. The team will use two stations (2x K3, 1x Expert 1, 3k-FA and 1x Tokyo Hy-Power HL-1.1KFX), a Spiderbeam and vertical antennas. Subject to a reliable Internet connection, they will upload the log to ClubLog on a daily basis. Otherwise the complete log will be uploaded upon their return. QSL via DK2AMM (OQRS, direct, by the Bureau, LoTW). They now have a Web page online at: <http://www.rotuma2018.de>

3W, VIET NAM, Dirk, DF2XG is QRV as 3W9XG from Hai Phong while here on work assignment. Activity is in his spare time on 40 to 10 meters using CW. His length of stay is unknown. QSL via operator's instructions.

3W, VIETNAM. Charles, W0DLE, will be active as 3W9DLE from Saigon for 90 days between February and April. Activity will be mainly 20 meters using CW, SSB and FT8, as well as entries in the ARRL International CW DX Contest (February 17-18th) and Russian DX CW Contest (March 17-18th). QSL via W0DLE.

4B4, REVILLAGIGEDO. Mark, XE1B, will be active as 4B4B from Socorro Island (NA-030, WW Loc. DK48mr), in the Revillagigedo Islands, between March 1-15th, 2018. Activity will be on 160-6 meters (no 30m) using SSB. Suggested frequencies are: 1850, 3790, 7065/7165, 7165, 14195, 18140, 21295, 24940, 28475 and 50140 kHz. Equipment will be an Icom IC-7600 transceiver with an ACOM 1010 amp into a Spiderbeam (20-10m), vertical for 40/80m, 160m long wire and a 4 element yagi for 6m. QSL via XE1B direct or Club- Log's OQRS. PLEASE support this DXpedition, it has been 7 years since the last operation by Mark, XE1B. Check out QRZ.com for more details and possible updates.

4S, SRI LANKA. (Reminder) Takayuki, JI1SHQ, has reportedly moved to Sri Lanka (AS-003) at the end of June, and will be active as 4S7TNG for the next several years. He is preparing his antenna and will soon be able to be on the air. Activity will be mainly on 30 and 20 meters using mainly CW. His station is an Icom IC-706MK2G transceiver (50w) into a V type Dipole, using two mobile whips; its height is approx. 60m. QSL via JI1SHQ by the Bureau.

5A, LIBYA, Abubaker, 5A1AL active using FT8 on 30 meters from 1900 to 2200z. QSL to home call.

5H, TANZANIA, Janusz, AK4JK is QRV as 5H0JK from Rungwa. Activity is on the HF bands using mostly CW and some SSB. His length of stay is unknown. QSL to home call.

5V, TOGO. John, N9MDH, will be active as 5V1JE from Lomé until end of May 2018, more or less. Activity will be on 80-10 meters (he likes the 30m band) using SSB and the Digital modes. He will use an Icom IC-7300 transceiver into a Gap Titan antenna. QSL via eQSL or LoTW.

6W, SENEGAL. Willy, ON4AVT, will be active as 6W/ON4AVT from Mbour sometime in February 2018. Activity will be on 20 meters using CW, SSB, PSK31 and PSK63. Equipment is a Yaesu FT891 transceiver into a Buddipole antenna. QSL via his home call sign.

7Q, MALAWI. John, N6JW, is now (since January 4th) active as 7Q7JW. Length of his stay is not known at this time. Activity has been on 40/20 meters SSB. QSL via his home callsign.

C5, THE GAMBIA. The call sign, C5DX, will be used during the 2018 Sandringham School Amateur Radio Club DXpedition between Feb 9-16th, as part of a school trip to the Gambia. They are taking 18 students and 3 staff including Alan, G4DJX, to return to Farafenni Senior Secondary High School. This is their 10th year in collaboration and visiting the school. Alan will operate CW and 4 licensed students from Sandringham School Amateur Radio Club (M0SCY) who are also on the trip will operate SSB - Jessica (M6LPJ), Polly (M6POG), Morgan (M6MXD) and Stan (M6SQO). It will be their first DXpedition, and they will be learning how to operate from a semi-rare country, so please bear this in mind and be patient with them as they learn the craft of DX operating. Remember the DX code of conduct. They will be running 400W using a K3, KPA500 and KAT500 into a multi-band dipole (the new Aerial-51 Model 807 ultra-light OCF Dipole) kindly donated by Aerial-51. SpiderBeam have also in part sponsored this DXpedition with a 12m SpiderPole and associated equipment. SSB will most likely be on HF, Alan will operate HF and also experiment with some LF bands depending on conditions and antennas. QSL via LoTW, direct to G4DJX and possibly ClubLog.

C8, MOZAMBIQUE (Reminder). Members of the Lion DX Team (OT8T) will be active as C8T from Mozambique between May 2-15th, 2018. Operators mentioned are Kurt/ON8KW (Team Leader), Roger/ON7TQ (Co-Leader), Bruno/CS7ABG (Co-Leader), Paulo/CU2CO, Emil/DL8JJ, Ron/ON1DX, Philippe/ON4ACP, Marc/ON4AMX, Erik/ON4CCV, Olivier/ON4EI, Hermann/ON4QX, Ivo/ON5CD, Cis/ON6LY and Franky/ON7RU. Activity will be on 160-6 meters using CW, SSB and RTTY, and possibly other Digital modes (PSK, FT8). They have permission to do 60m and will also do 2m-EME. The setup will consist of 4 stations on the air for 24 hours and a fifth station for 2m EME + 60m and extra digimodes on all bands. QSL Manager has not been named, but it looks like they will be using ClubLog. Look for more details to be forthcoming. Visit their Web page at: <https://mozambique2018.wordpress.com>

D6, COMOROS, Giovanni, IK5BCM, Giuseppe, IK5CBE and Giovanni, IK5CRH will be QRV as D68I from Jan 29 - Feb 10. Activity on 80 to 10 meters using CW, SSB and various digital modes. QSL via IK5CRH.

DP0, ANTARCTICA. Matthias, DH5CW, will be active as DP0GVN from the German Neumayer Station III (AN-016, WWFF DLFF-022, WW Loc. IB59UH) between mid-February 2018 to mid-February 2019. Activity will be on various HF bands during his spare time. QSL via DL5EBE.

FG/TO7, GUADELOUPE. Jean-Pierre, F6ITD, will once again be active as FG/F6ITD from Guadeloupe and one of its islands between January 29th and March 15th. Island mentioned is La Desirade Island (IOTA NA-102, Lighthouse GUA005 and French Flora Faune FFF 1000). Activity will be on all HF bands (160-6m) using CW, SSB and the Digital modes. Look for him to use the call sign TO7D during some contests. Radio equipment is a FT-450D + Tokyo 550 Power 500w. QSL via his home call sign, direct or LoTW (preferred). Logs will be uploaded to ClubLog and LoTW.

FG/TO3, GUADELOUPE. Operators Michel/F6GWV and Gildas/F6HMQ will be active as FG/homecall between February 23rd and March 12th. Activity will be holiday style on various HF bands using "light equipment". They will also be in the ARRL Inter. DX SSB Contest (March 3-4th) using the call sign TO3Z. QSL via F6HMQ. QSL FG/F6GWV and Gildas FG/F6HMQ via their home call sign, direct or by the Bureau.

HL, REPUBLIC OF KOREA. Special event call DT23WOP is QRV until February 28, 2018 during the Winter Olympic Games that will be held here. QSL via HL1IWD.

J5, GUINEA BISSAU. Livio, IZ3BUR, will be active as J52EC from the Cumura High School in Guinea Bissau until February 21st. Activity will be mainly on 20/15/10 m. QSL via IZ3BUR. PLEASE NOTE: This project is part of "Books for the high school of Cumura" by Father Gianfranco, J52OFM. For info see: <http://www.padregianfranco.org> Any donation for the Cumura Mission will be greatly appreciated.

JD1, OGASAWARA. Kazu, JD1BNA (ex-JK1FXI), active from Hahajima (Mother) Island (AS-031) between Feb 2-5th. Activity will be mainly on 160/80/40 meters using mostly CW. QSL via JL1UTS, direct only.

JW, SVALBARD. Erik, LA2US, active as JW2US from Bear Island (IOTA EU-027) for the next 4 months. Activity will be limited to his spare time and he will operate on various HF Bands mostly CW at the lower band edges and IOTA frequencies. Also, on this trip he will be on BPSK, FT8 and RTTY. Equipment is a FT-450D, Signalink USB, Expert 1K-FA and a OCFD antenna. QSL via ClubLog's OQRS, LoTW or eQSL.

K3, UNITED STATES (Special Event). Look for the annual "Ground Hog Day Special Event Station", K3HWJ, to be active on Saturday, Feb 4th, around 9:00 a.m. and 4:00 p.m. (EST) or possibly later, depending upon band conditions at that time. Suggested frequencies are: 40 meters on or about 7245 kHz (+/- about 5 kHz) or 20 meters on or about 14340 kHz (+/- about 5 kHz). 80 meters is a possible "backup", but is not planned at this time. They will offer a certificate for a "SASE" (self addressed stamped envelope) and mail it to: Punxsutawney Area Amateur Radio Club, Groundhog Contact No. ___, P.O. Box 3, Punxsutawney, Pa. 15767. PLEASE NOTE: Put your contact number in the "___" above. This will help them a lot to process your certificate. Also, certificates should be all mailed out within 2-3 weeks. For more details, see: <http://www.punxclub.com/special-events/ground-hog-day>

KL7, ALASKA. The North Country DX Association (NCDXA) will be active as KL7RST/KL7 from the Denali National Park in Alaska starting around April 20th. QSL via K7ICE. This stopover is part of the 2018 Worked All "RST" stations special event running from Feb 1st to May 31st. The NCDXA "RST" stations are on Facebook. Check out the hams you worked and learn about them at: <https://www.facebook.com/North-Country-DX-Assoc-K7ICE-1717462798496577>

LZ, BULGARIA, Special event station LZ140LO is QRV until the end of March to celebrate the 140th anniversary of Bulgarian Independence. QSL via LZ1ZF.

PJ2, CURACAO, Jeff, K8ND and Jim, W8WTS are QRV as PJ2ND and PJ2/W8WTS, respectively, from the Signal Point station until February 5. Activity is on the HF bands. They will be active as PJ2T as a Multi/Single entry in the CQ World Wide 160 Meter CW contest. QSL to home calls and PJ2T via W3HNK.

PJ4, BONAIRE. Operators Noah/K2NG, John/K4BAI, Ron/KK9K and Scott/NE9U will be active as PJ4A from the "PJ4G Radio House" on Bonaire (SA-006, WLOTA LH-1279) during the ARRL Inter. DX CW Contest (February 17-18th) as a Multi-? entry. QSL via NE9U, direct, by the Bureau or LoTW. Check out the "PJ4G Radio House" at: <http://www.pj4g.com>

TR, GABON, Alain, TR8CA has been active using FT8 on 160 meters between 0200 and 0300z, and 80 meters using CW after 0500z. QSL to home call.

TX5, FRENCH POLYNESIA (Updated). Operators Bill/KH6OO and Will/W0ZRJ (son) will be active as TX5X from the north shore of Mt. Orohena on the island of Tahiti (OC-046) between March 10-17th. Activity will be on various HF bands using one 100w station (Flex 6700) into a vertical dipole. Modes will be CW, FT8, JT9 and JT65. All QSOs will be uploaded to LoTW, eQSL, QRZ.com and ClubLog (OQRS) at the completion of their trip. In addition, EVERYONE in the log will be sent a QSL via their Bureau. Please do not send them Bureau cards. Read "Tips to get into our log" on QRZ.com.

TY, BENIN (Update). Members of the F6KOP team, the Provins ARC, will be active from Bénin between March 7-18th, 2018. Call sign is still pending. There will be an international team of 12 operators lead by Jean-Luc, F1ULQ. The other operators mentioned are Damien/F4AZF (Co-leader), Jo/ DJ3CQ, Arno/DL1CW, Andreas/DL3GA, Henri/F1HRE, Raymond/F5MFV, Xavier/F5NTZ, Philipp/OE7PGI and possibly two others. Frank/F4AJQ is the team pilot station. Plans are to be active with 4 stations on the air, 160-10 meters using CW, SSB and the Digital modes (RTTY, PSK and FT8). QSL via F5GSJ, direct, by the Bureau, LoTW or their OQRS. For more details and possible updates, see: <https://ty2018dx.wordpress.com>

V3, BELIZE. Michael, K5MDK, will be active as V31MK from Maya Hill Lodge near central Belize between March 1-5th. Activity will be on various HF bands. QSL via his home call sign, direct or by the Bureau. He also plans to operate with V31VP during the ARRL International DX SSB Contest (March 4-5th). Watch QRZ.com for more details.

VQ9, CHAGOS ISLAND. Kazeno, JO1GWT/KJ6ZHM, is once again active as VQ9KA near Diego Garcia. The length of his stay is unknown. If like last time, he will be on 40-10 meters using CW and SSB. He states that if it rains there will be no operation. Kazeno uses a Yaesu FT-857D into a Buddipole. QSL via JO1GWT, direct or by the Bureau.

XU, CAMBODIA. Tom, KC0W, cut his operation from Vietnam and is now active from here as XU7XXX. His length of stay is not known. Activity will be on 80-6 meters CW only. QSL via KC0W direct. No LoTW – No Bureau.

YJ, VANUATU. Grant, VK5GR, announced this that he is "planning another holiday style DXpedition for 2018" with his family on Efate (OC-035) between April 17-29th. He hopes to operate as YJ0AG (waiting to receive the license). Activity will be on 80-10 meters using mostly the Digital modes (RTTY, FT8, PSK, Olivia) as well as SSB and some SSTV, possibly CW. Grant states, "I am looking to particularly work unique stations and will be where possible targeting Europe Short Path where YJ is high on the ClubLog most wanted list. Operation will of course be intermittent as again family comes first but I will attempt to operate during the main openings (EU SP at night will be a feature). The station will be a K3/KPA500 combination with a G3TXQ UltraLight HexBeam for 20-10m plus a multi-band vertical for 80-10m (with water access along the EU SP and NA LP paths)..... I also hope to operate in the SPDX RTTY Contest." QSL will again be managed by M0OXO through his OQRS service for electronically requested cards delivered to you either direct or via the Bureau. QSL via the Bureau go to VK5GR.

YB, INDONESIA, Emmanuel, F5LIT will be QRV as YB9/F5LIT from Bali, IOTA OC-022, from January 30 to February 10. Activity will be on 20 to 15 meters using SSB. QSL direct to home call.

Z2, ZIMBABWE (Update). Operators Rune/LA7THA, Arne/LA7WCA and Thor/LA9VPA will be active as Z2LA between March 2-11th. Activity will be holiday style on various HF bands (160-10m) using CW, SSB and the Digital modes. QSL via ClubLog's OQRS, M0OXO or his OQRS. Visit their new Web site at: <http://www.la9vpa.com/z2la>

IOTA NEWS.....

NA-062. Howie, K1VSJ, is now active from Key Colony Beach in the Florida State (Florida Keys) IOTA Group until February 15th. Activity will be on 40-10 meters using CW and SSB. QSL via K1VSJ, direct or by the Bureau.

NA-102. Jean-Pierre, F6ITD, will be active as FG/F6ITD from La Désirade Island, lighthouse (LH GUA005) and France Flora Fauna site (FFF 1000) between January 29th and March 15th. Activity will be on 160-6 meters with 500 watts and multi-dipoles using SSB, the Digital modes and CW. QSL via F6ITD.

OC-016. Jim, WB2TJO, will once again be active as 3D2JS from Taveuni Island, Fiji, between early January and the middle of March, 2018. Activity will be on 40-15 meters using CW, SSB and the Digital modes. The rig will be an ICOM 706 MK IIG with an MFJ 971 manual tuner. QSL via his home call sign.

OC-105 Dindo, DU1UD, will be active as DU1UD/8 from the very rare OC-174 Mapun Island (OC-105) [also called Cagayan Sulu], part of the Cagayan De Sulu IOTA Group, in the Philippines, during the first or second quarter of 2018. Activity will probably be on the IOTA frequencies using an Elecraft K3 with a KPA500 amplifier into a VDA and vertical antennas. The length of his stay is dependent on local/safety conditions. During this time Dindo will make a return visit to the Tawi Tawi Group (OC-174). QSL both operations via M0OXO, direct or by his OQRS. Look for more information to be forthcoming. Also, watch the M0OXO Web page at: <https://www.m0oxo.com>

SILENT KEY. Peter, HB9PL, informs OPDX: "It is with great sadness to inform the international DX fraternity that **Dr. Hans-Rudolf "Rudi" Lauber, HB9RG**, passed away December 26, 2017, at the age of 92. Rudi was a multi-faceted ham and active in many different disciplines of our hobby. He not only had an astonishing score of first VHF/UHF contacts between Switzerland and the rest of Europe as well as beyond, but was initiator, sponsor and driving wheel of a group of enthusiasts who in the second half of the 50's realized the first EME QSOs out of Switzerland. During the last few decades he shifted his activities towards DX and achieved DXCC Honor Roll No.1 status (339/358 mixed) in remarkably short time. His sincere, eloquent, competent and helpful manners will be widely missed."

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.

That's it for this month. As you can see there are quite a few DX opportunities in the next few months, so get on the air. As I have said in the last couple of DX columns, you can't work DX if you can't hear DX. And you can't hear DX if you don't turn on your rigs. **GET ON THE AIR!** And take advantage of our club's Open House days and work some DX from the club site. Until next month, vry 73.

Digital SIG

Rick, K8CAV

Have you been wondering about all of the talk about the latest FT8 digital mode? Or maybe always wanted to operate RTTY or PSK-31 or other digital modes?

These days getting up and running digitally is far less complicated than what it used to be. The February meeting of the Digital Special Interest Group meeting will cover the hardware and software you'll need to become digitally capable.

We'll be talking about the different ways to connect your rig to your computer, including the latest with some rigs that include a built in sound card. We'll also talk about the popular software packages fldigi for general digital work, and the WSJT-X package for FT8 and JT65.

Our meeting will be held on Tuesday February 6th at 7:00 PM at the PCARS club site in Ravenna, so come on out to find out how easy it is to get up and running.



QRP & CW SIGs

Terry, KB8AMZ



Hello everyone. Time is going by quickly. I noticed that since I turned 50 a couple years ago.

The 2nd Tuesday, February 13, we meet at the clubhouse. Some of us will be constructing our straight key and others will be displaying what they constructed at home.

Doug - WA8UWV has plans for an ATU build for the March SIG, and will be presenting what he proposes for the build following the build/show-and-tell.

At our last meeting we discussed plans for the remainder of the year and decided that we will try to build something that is CW or QRP related, and can be built at a moderately low cost.

Hope to see you at our next special interest group meeting whether you are building or not.

Swap-N-Shop

FOR SALE: YAESU FT-2000 D 200 WATTS & POWER SUPPLY, two microphones, (Desk and hand mike), with manuals & books. The transceiver has been operated probably six times so it's like new. I tested it on 20 and 6 Meters, and it works perfectly. I also have the Yaesu box. HF+6. Featuring DSP filtering and a host of outstanding ergonomic and performance features. Asking \$1700.00 or Best Offer.

Contact Chuck, K8BBE at k8bbechuck@gmail.com or 330-936-9000 [4/2/18]

FOR SALE: Hammarlund HQ-180A general coverage receiver tunes from 540 to 30000 kHz in six ranges. It has improved mechanical and electrical stability, tunable BFO for CW or fixed BFO for optimum SSB, silicon rectifiers, accessory power supply and 115/230 VAC 50/60 Hz operation. Other enhancements include: antenna trimmer, noise limiter, RF gain, S-meter, stand-by and AVC on/off. There are 3.2 ohm speaker terminals on the rear panel. The clock works. It is in excellent physical and electrical condition. An original manual in excellent condition is included. It is used frequently and a demo is possible. The first reasonable offer takes this champion of the tube era. A complete new tube set was installed 6 months ago.

Contact Dave, N8NB at 330-501-5031 [4/2/18]



FOR SALE: 30' Aluminum Free-standing Tilt-Over Tower with Base Section. Ready to put up. Full specs can be found at http://www.universaltowers.com/pdf/standard_models/01-model-04-30.pdf \$300.00

Contact John, KD8MQ at 330-936-5021, or kd8mq1@gmail.com . [04/02/18]



PCARS K8BF

The Club that puts the FUN in Ham Radio!



Contest Calendars

February 2018	
Contest Name	Times - Date
+ Vermont QSO Party	0000Z, Feb 3 to 2400Z, Feb 4
+ 10-10 Int. Winter Contest, SSB	0001Z, Feb 3 to 2359Z, Feb 4
+ Minnesota QSO Party	1400Z-2400Z, Feb 3
+ British Columbia QSO Party	1600Z, Feb 3 to 0400Z, Feb 4 and 1600Z-2400Z, Feb 4
+ CQ WW RTTY WPX Contest	0000Z, Feb 10 to 2359Z, Feb 11
+ ARRL School Club Roundup	1300Z, Feb 12 to 2359Z, Feb 16
+ ARRL Inter. DX Contest, CW	0000Z, Feb 17 to 2400Z, Feb 18
+ CQ 160-Meter Contest, SSB	2200Z, Feb 23 to 2200Z, Feb 25
+ South Carolina QSO Party	1500Z, Feb 24 to 0159Z, Feb 25
+ North American QSO Party, RTTY	1800Z, Feb 24 to 0559Z, Feb 25
+ North Carolina QSO Party	1500Z, Feb 25 to 0059Z, Feb 26

Click the "+" next to the Contest Name - Read the Rules & Have Fun. **YES** - There are **MANY** More Contests out there - Check the internet.

Keep the following dates open - PCARS will be contesting from the club site.

Check the PCARS web site for up-to-date details from Chuck, W8PT.

Contest Name	Times - Date
North American QSO Party - RTTY	1800Z, Feb 24 to 0600Z, Feb 25
Wisconsin QSO Party	1800Z, Mar 11 to 0100Z, Mar 12
Idaho QSO Party	1900Z, Mar 10 to 1900Z, Mar 11
Florida QSO Party	1600Z, Apr 28 to 2159Z, Apr 29
ARRL June VHF	1800Z, Jun 9 to 0300Z, Jun 11
NA QSO Party - RTTY	1800Z, Jul 21 to 0600Z, Jul 22
CQ WW VHF	1800Z, Jul 21 to 2100Z, Jul 22, 2018
Ohio QSO Party	1600Z, Aug 25 to 0400Z, Aug 26
California QSO Party	1600Z, Oct 6 to 2159Z, Oct 7

Big Fun at The North American QSO Party RTTY contest in February

PCARS plans to put the club station K8BF on the air for the NAQP RTTY contest on February 24 (1800Z) to February 25 (0600Z).

If you are interested in participating, please send an e-mail to George, K3GP at rttyfan@gmail.com with your preference of operating times so that we may prepare operator schedules.

Tutorial instructions for the contesting software will soon be available on the web site, and experienced RTTY operators will be present during the contest to assist anyone who is new to this mode.

Come join us having fun with the second oldest digital mode!



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 65 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.

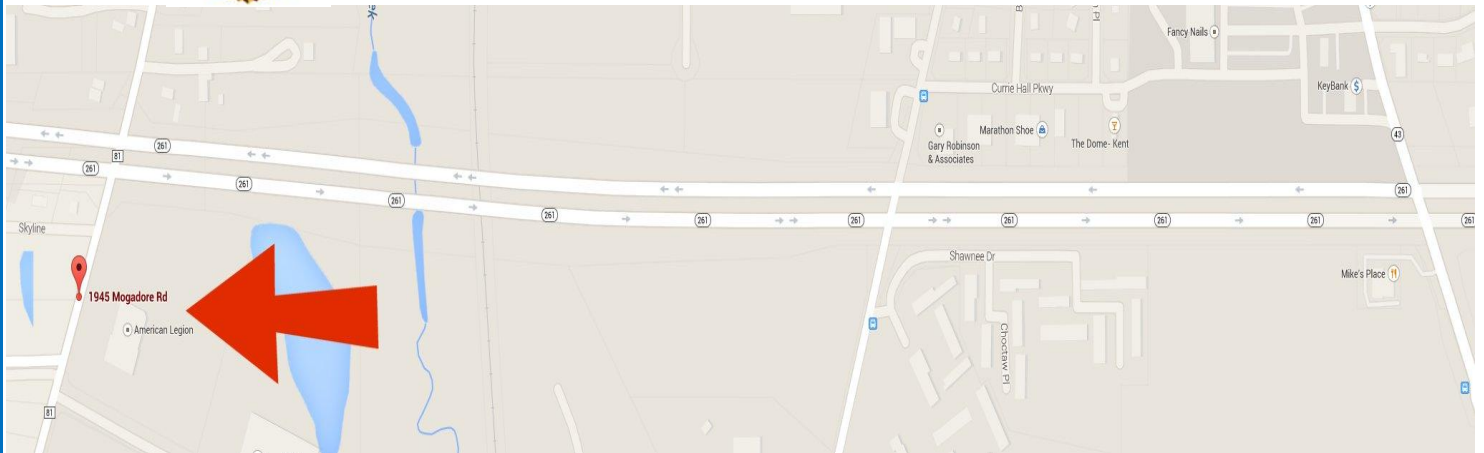


PCARS Meetings

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.

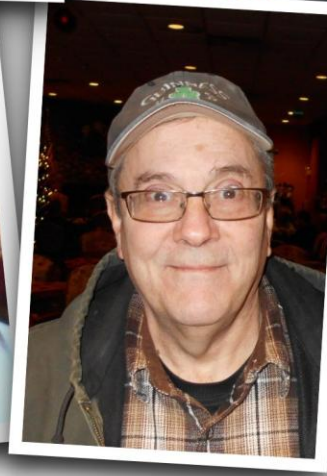
Photos from the PCARS Meeting in January



PCARS Meeting - 8 January 2018



PCARS Meeting - 8 January 2018



PCARS Meeting - 8 January 2018

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 there.
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!!

Important Dates in February

February 4 is Stuffed Mushroom Day. Also known as National Stuffed Mushroom Day in the United States, this made-up holiday clearly encourages people to make and consume lots and lots of stuffed mushrooms.

A popular party dish, stuffed mushrooms are made by removing the stems and stuffing the resulting hollow space with meat and vegetable filling. Stuffed mushrooms are usually savory and are typically sprinkled with breadcrumbs and cheese and baked before being served.



Meat for Vegetarians

Mushrooms are the fleshy parts of fungi that bear spores. In many cultures, they are an integral part of the cuisine and are a prominent source of dietary minerals and vitamin B. Mushrooms are low calories and have low amounts of carbohydrates, making them an ideal diet food.

While mushrooms are botanically neither fruits or vegetables, in many parts of the world, they are considered safe for vegetarians to consume and are often considered to be a meat substitute.

How to Celebrate?

Make a huge batch of stuffed mushrooms and have them for all your meals of the day. Start with egg and bacon stuffed mushrooms for breakfast, have sausage stuffed mushrooms for lunch, and end the day with sweet potato and parmesan stuffed mushrooms.

Host a stuffed mushrooms party. Have your guests bring their favorite stuffed mushrooms to share.

Did You Know...

...that a person or an animal who eats mushrooms and fungi for nutrition is called a mycophagist?

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February 13 is World Radio Day, take the time to honor the role of radio in the world of communication and its contribution in our daily lives.

The holiday was created by the United Nations (UN) in 2011 as a way to celebrate the start of UN radio in 1946. It also aims to raise awareness about the role that radios play in society.

Russia celebrates Communications Workers' Day on May 7 to commemorate the date in 1895 when Alexander Popov, a Russian physicist, successfully demonstrated a working radio transmitter. Bulgaria also celebrates the day but calls it Radio and Television Day.



How to Celebrate?

Learn more about the history and science of radios.

Learn how to build your own radio – you never know when you may need to make one.

Give your time and money to organizations working on bringing radio communications to many isolated parts of the world.

Did You Know...

...that the Spanish Academy of Radio had originally proposed to create a World Radio Day on October 30? On this day in 1938, a performance of War of the Worlds by Orson Wells was aired over the radio.

=====

February 18 is Battery Day. It is a day to acknowledge the device that makes it possible for the smallest household items to the largest heavy-duty equipment to work smoothly.

The unofficial holiday of unknown origins is also known as National Battery Day in the United States

Converts Energy

A battery is a device that converts chemical energy to electrical energy. It is thought that the term battery to describe such a device was first used by Benjamin Franklin because the setting of the capacitor he saw reminded him of a battery of cannons.

How to Celebrate?

Celebrate the day by swapping out old the old, dead batteries from your household items.

Take all the old batteries to the recycling center.

Check your smoke alarm and fire alarm batteries and replace them if needed.

Learn the history and science behind batteries.

Did You Know...

...that according to some archeologists and historians, the earliest known battery in recorded human history can be traced back to as far as 2000 years ago? Known as the Baghdad Battery, the battery is a clay pot containing a metal tube and a metal rod. It is thought to have been discovered in the basement of the Baghdad Museum by German painter and archaeologist Wilhelm Konig, who suggested that the artifact was probably used as a battery.



=====

Pistachio Day

Archeologists believe that pistachios were used as food as early as 6000 BCE. Celebrate this ancient and healthy nut on February 26, Pistachio Day.

Start adding pistachios to your diet, starting today, Pistachio Day.

Also known as National Pistachio Day or World Pistachio Day, this unofficial holiday encourages people to add pistachios to their daily diets and take advantage of their health benefits.

Happy Nut

Called the happy nut in China and the smiling nut in Iran, pistachios are native to the Middle East and Central Asia.

Food historians believe that the pistachio tree reached Greece along with Alexander the Great's army. Traders introduced the nut to the rest of the European continent, where it was initially used as an expensive addition to food and baked goods.

Dyed Red to Hide Flaws

In the United States, the nut was introduced by Middle Eastern immigrants during the late 19th century. Even though, the country now produces most of the world's pistachio crops, along with Iran, Turkey and Syria, the nut wasn't grown commercially there until the mid 20th century.

In the initial days of their commercial productions, pistachio shells were dyed red or green by the growers. This was to hide the marks and dents made on the shell during harvesting. Today, with mechanical harvesting procedures, there is no reason to dye the shells anymore.



Full of Nutrients

Pistachios are a rich source of proteins, fiber, and vitamin B. Research indicates that adding the nut to one's daily diet may reduce the risk of heart disease.

The nut is used in many cuisines around the world. In the Middle East, it is one of the main ingredients in many types of sweets including baklava and halva. In Italy, it is used to make spumoni and pistachio gelato – the Italian versions of ice cream.

How to Celebrate?

Add pistachios to every meal of the day. Start with adding it to your breakfast cereal, substitute peanut butter with pistachio butter for your lunch sandwich, have a pistachio crusted pork chop for dinner and finish the day off with a scoop or two of pistachio ice cream or pistachio cake.

Did You Know...

...that the Jylgyndy Forest Reserve in Kyrgyzstan was created to conserve the pistachio plant?

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 2018.

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

AC8NT, WA8AR, KB8UUZ, WB8LCD, K8CAV, N8RLG, W8KNO, WX1DER, W2LJ, W8PT, KA8TOA, KB8AMZ, K3GP, Jenny List - Hackaday, ARRL and the World-Wide Web.

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





Portage County Amateur Radio Service, Inc. (PCARS)

Membership Application [] New [] Renewal

Name: _____ Call Sign: _____ License Class: _____

Address: _____

City: _____ State: _____ ZIP: _____

Phone: _____ E-Mail Address: _____

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

Birthday: Month: _____ Day: _____ (don't need 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.**

Dues are as follows: Example - Renewals are \$20 for Regular/Associate members, \$16 Senior \$10 Family per year.

Check One

Pro-Rated Dues Amount for NEW members:

- | | |
|---|---|
| <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) |
| <input type="checkbox"/> Associate Membership | Pay September 1 through November 30 = \$10.00 (last 4 months)
Pay December 1 through December 31 = \$5.00 (last month) |
| <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) |
| <input type="checkbox"/> Associate Senior Membership (65+) | Pay September 1 through November 30 = \$8.00 (last 4 months)
Pay December 1 through December 31 = \$4.00 (last month) |
| <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) |
| Call Sign of Regular Member: | Pay September 1 through November 30 = \$5.00 (last 4 months)
Pay December 1 through December 31 = \$3.00 (last month) |

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

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

What are **YOUR** Ham Radio interests:

Signed: _____ Date: _____

Mail to: Portage County Amateur Radio Service, Inc.
c/o: Tom Sly, WB8LCD
1480 Lake Martin Dr.
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. 26 Jan 2017

Portage County Amateur Radio Service, Inc.



PCARS - K8BF

Thirteenth Annual

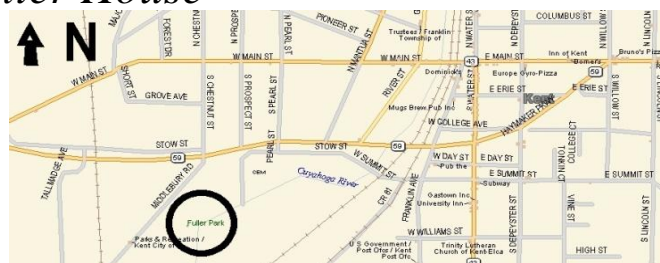
"Freeze Your Acorns Off" *(FYAO) QRP Event*



Where: *Fred Fuller Park - 497 Middlebury Rd., Kent, Oh*
at the Roy Smith Shelter House

When: *Saturday - Feb. 10, 2018*
Set up: 9am

Operating Time: *10am - 3pm EST*



We will be active on CW & Phone in the General areas of the 6, 10, 15, 20, 40 and 80 meter bands (Repeater & Echolink on the K8SRR echo link node for a certificate) and anything else we can get working. Club Call Sign **K8BF** for a certificate. Other participating stations will be using their own callsign/FYAO, or calling "CQ FYAO" (only stations at the Freeze Your Acorns Off event should use the /FYAO designator). Yes, we'll be braving the cold snowy weather of North Eastern Ohio to set up QRP stations using portable power and antennas.



A beautiful color (suitable for framing) 8" x 10" certificate is available if you contact K8BF and send your QSL with a large SASE to the club call trustee:

Bob Hewett, K8FEY - 3670 Sea Ray Cove - Reminderville, OH 44202

So, from the comfort of your warm radio shack - give us a contact while we're out freezing. We'll need all the contacts we can make to help keep us warm. Your support will be very much appreciated!



Check PCARS out on the web at: www.portcars.org
Questions? Contact Chuck, W8PT at chuckw8pt@gmail.com



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

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

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

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

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

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

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

~ 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 - Robert Gurney - N8RLG 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	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 ~		Newsletter Editor	
2 nd Monday of each month. 7pm Thursday night Club Net at 8 pm on 146.895	OSPOTA Chairman	KB8UUZ	Tom Parkinson
	Public Information Officer	WB8LCD	Tom Sly
	Secretary	WB8LCD	Tom Sly
	Tech, Gen & Extra Class Manager	AC8NT	Jim Wilson
	Volunteer Examiner Liaison	N8RLG	Robert Gurney
	Webmaster	KD8MQ	John Myers

 <p>PCARS Active Volunteer Examiner Team Members</p>	N8RLG	Robert Gurney
	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



THE RADIOGRAM

PCARS Incorporated
Nov. 1, 2005

First Meeting
Nov. 14, 2005



ARRL Affiliation
April 20, 2006



Special Service Club
March 22, 2010

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NLC

