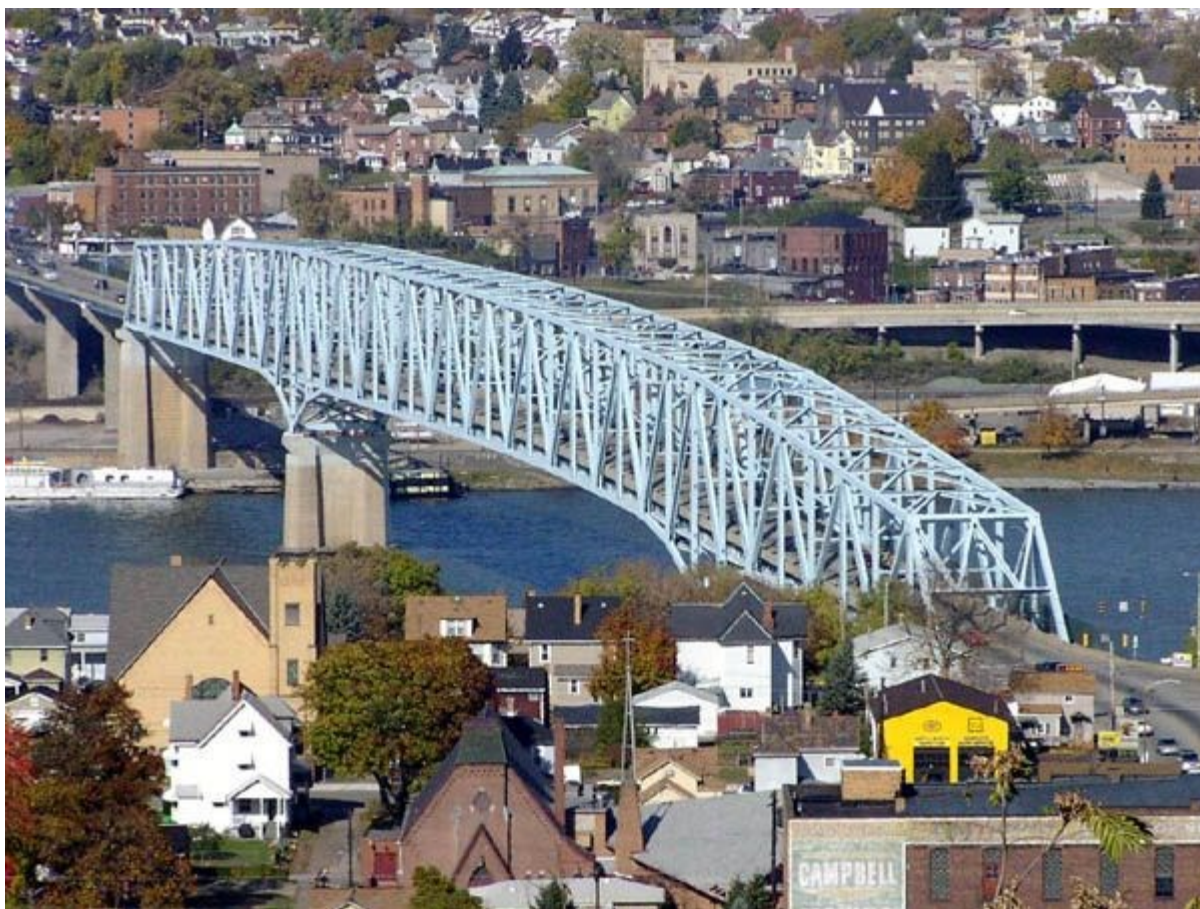


THE eQRM

APRIL 2018



The BVARA in Beaver County Pennsylvania

Beaver Valley Amateur Radio Association

W3SGJ

Repeater 145.310 PL 131.8

Get ready !



BVARA event in May.

On the cover:

This is a great photo of the Monaca-Rochester Pennsylvania Bridge; From 1987 to 2009, the bridge was named each year in honor of the winner of the Rochester vs. Monaca high school football game. Whoever won the football game had their city name first on the bridge sign till the next game. Monaca High School merged into Central Valley High School, the 2009 game was the final game to determine naming rights. The bridge spans the Ohio River; it is now called the Rochester–Monaca Bridge on the Rochester side, and the Monaca-Rochester Bridge on the Monaca side.

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		*BVARA field trip	

Check into our nets

Wednesday 2 Meter

8:30PM on 145.310 MHz PL 131.8

Wednesday 10 Meter

9:00PM on 28.470 MHz

The eQRM is a publication of the Beaver Valley Amateur Radio Association (BVARA) and is Copyright 2010 - 2018. All material presented in this publication is not necessarily the views of the American Radio Relay League (ARRL), BVARA, or members of the said organizations. If you would like to contact the editor of the eQRM, please email David at kc3bxc.73@gmail.com. Please visit us online at www.W3SGJ.org. To subscribe to our newsletter, please visit W3SGJ.org/newsletter.php

Who We Are

2018 BVARA OFFICERS

President: Jack Spencer, KZ3Z

Vice President: Dan Grazulis, KB3VSP

2nd Vice Pres.: Doug Lawrence, K3GTX

Treasurer: Pam Spencer, W3PMS

Secretary: Norm Trunick, K3NJT

Director: Tony Pavilonis, W6PEF

Director: Bob Winkle, N3AZZ

Trustee: Rich Soltesz, K3SOM

MONTHLY MEETINGS

E-Board meetings are now held the Saturday before the monthly club meeting.

VE testing begins at 5:00 PM.

Regular meetings are at 6:30 PM

All meetings are held at the
Beaver County
Emergency Services Center
351 14th Street
Ambridge, PA 15003
on the second Thursday of every month
(unless otherwise stated).

2018

Apr 12

May 10

Jun 14

Jul 12

Aug 25 Corn Roast

Sep 13

Oct 11

Nov 08

Dec Christmas Party TBA



This Month

BVARA Club Feature Presentation

This Month:

Speaker:

Rich Soltesz
K3SOM

Topic:

Fox Hunting

Including:



Continuing with our BVARA Presentation Series this year, our topic this month deals with an outdoor topic involving radios, light exercise and . . .

fun! Contrary to popular opinion, fox hunting is not when a guy is looking for that beautiful lady. Fox hunting to hams is when you use a radio and normally some kind of directional antenna to search for a signal. It's called 'Fox' Hunting where the fox is a low-powered transmitter that is hidden outdoors and the 'Hunters' are hams that are equipped with portable radios and directional antennas who are trying to find the 'Fox'.

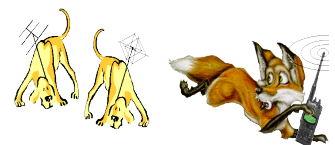
At an advanced level, Amateur Radio Direction Finding (ARDF) is an amateur racing sport that combines radio direction finding with the map and compass skills of orienteering. It is a timed race in which individual competitors use a topographic map, a magnetic compass and radio direction finding apparatus to navigate through diverse wooded terrain while searching for radio transmitters. That's not us – we're just beginning!

As rank beginners, we're going to begin with a Baofeng UV-5R two-meter transceiver that has been equipped with a BFoxCon fox controller by Byonics. Its PIC Controller has been programmed to transmit with unique identifying tones followed by our club ID in Morse Code. We'll also show you an easy-to-build three-element yagi that we made with steel tape elements and ½-inch PVC tubing with F/B ratios approaching 50 dB. Now we're on a roll!

But wait, there's more! We'll cover two or three signal attenuators and some techniques to minimize or attenuate the signal once you get close to the 'Fox'. If you are a new ham or want to do something different for a change, this is one exciting presentation that you won't want to miss.

Rich's Background:

Extra Class Ham, Licensed since 1962, VE,
B.S. Electrical Engineering



More this Month

Weekly

The Freedom Square Diner in Monaca has a great wait staff. Come let them take your order.

Thursday Morning Breakfast
(or you can have lunch)



The BVARA meets every Thursday at the Freedom Square Diner in Center Township, just to the right of the Cinemark Center Township Marketplace at 09:30 AM. All radio amateurs and those interested in amateur radio are encouraged to come join us at our Thursday morning breakfast.

See you Thursday at



The eQRM urges all Beaver County licensed amateurs to participate in the County's RACES and ARES programs.

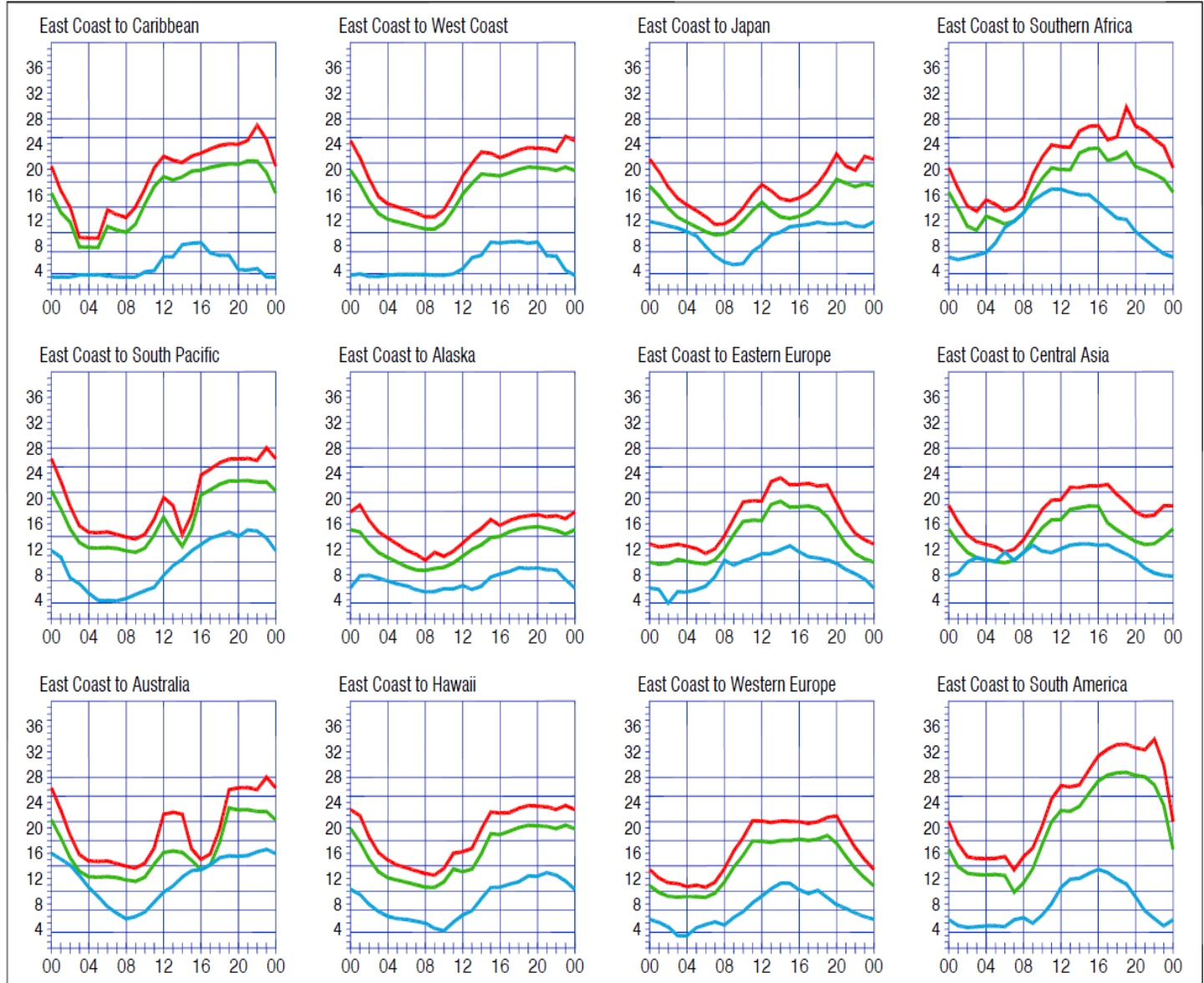
Any Beaver County Amateur that is interested in participating in the RACES/ARES programs can do so by checking into the Beaver County Public Service Net which meets every Monday evening at 8:30 PM local time on the N3TN 146.850 MHz repeater (131.8 PL)

RACES / ARES

The eQRM Urges All County Hams to Participate.



Propagation



When are the bands open? These charts, generated using CAPman, show probabilities for average HF propagation in the month of **April** for the paths indicated. The horizontal axes show Coordinated Universal Time (UTC), and the vertical axes frequency in MHz. On 10% of the days of this period, the highest frequencies propagated will be at least as high as the upper red curves (HPF, highest possible frequency) and on 50% of the days they will be at least as high as the green curves (MUF, classical maximum usable frequency). The blue curves show the lowest usable frequency (LUF) for a 1500-W CW transmitter. For SSB or a lower transmitter power, the LUF will be somewhat higher than the blue curves indicate. See Oct 1994 *QST*, pp 27-30, and Feb 1995 *QST*, pp 34-36, for more details. The predictions assume an observed 2800-MHz solar flux value of 73. This is a Very **Low** level of solar activity. See the detailed propagation tables on *The ARRL Antenna Book CD-ROM*.

PROPAGATION

The East Coast propagation chart listed here is for April 2018.

If you would like more information in general, please visit <http://www.arrl.org/propagation>

Get your License or Upgrade

If you are interested in getting your first FCC license or upgrading your current amateur radio license, the Beaver Valley Amateur Radio Association holds VE Test sessions (Volunteer Examinations) the second Thursday of each month at the Nine One One center in Ambridge Pennsylvania prior to our BVARA Club meeting. If there is no meeting there is no test session. Please come take your test with us!

For more information, contact :
Rich Soltesz, K3SOM
(724) 847-0610
k3som@arrl.net



VE TEST SESSIONS

Beaver County Emergency Services Center 351 14th Street Ambridge, PA 15003.
Tests begin promptly at 5 pm on the same day as BVARA Club Meetings
(the second Thursday of the month).
All classes of amateur radio license tests are administered.

ALL candidates MUST bring ALL of the following:

1. 2 forms of I.D. - one MUST be a photo I.D.
2. A pencil AND a pen with blue or black ink.
3. The original AND a photocopy of any valid ham license.
4. The original AND a photocopy of any C.S.C.E.
5. The test fee of \$15 - cash, check, or money order.

New License and Upgrades

BVARA VE Testing



Here's the list of participants in our VE process this past month:

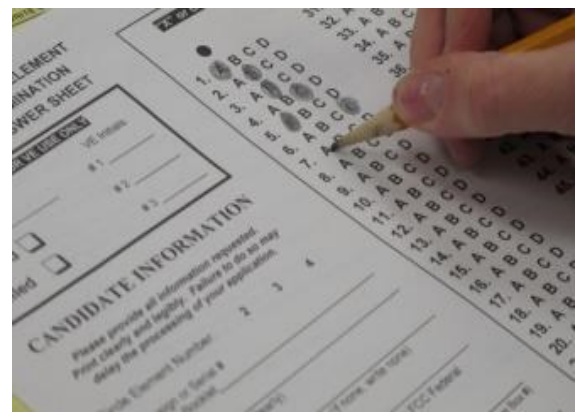
Jay Shelton – AD8AT, Richmond, OH successfully passed all three exams!
including Technician*, General, and Extra Class

*Eligible for BVARA membership at no cost for 2018

Don't miss the



BVARA event in May.



Membership Information

By becoming a BVARA member you help secure the future of Amateur Radio in Beaver County. Additionally, the BVARA receives a portion of each ARRL

membership you purchase!

Join the BVARA and ARRL

Sign up for:

Price

- | | | |
|--|-------|-------|
| <input type="checkbox"/> BVARA full membership | 20.00 | _____ |
| <input type="checkbox"/> BVARA student membership | 15.00 | _____ |
| <input type="checkbox"/> BVARA associate membership | 10.00 | _____ |
| <input type="checkbox"/> BVARA Child under 21 at home membership | 5.00 | _____ |
| <input type="checkbox"/> One year ARRL membership | 49.00 | _____ |

A Club Donation _____

ARRL Member? Yes No

Total Enclosed _____

Your License Class (If you have one.)

- | | |
|--------------------------------------|---------------|
| <input type="checkbox"/> Technician | Name _____ |
| <input type="checkbox"/> General | Address _____ |
| <input type="checkbox"/> Advanced | _____ |
| <input type="checkbox"/> Extra Class | Email _____ |

Phone _____

Your Call sign _____

Your Signature _____

Make check or money order payable to:

The Beaver Valley Amateur Radio Association, P.O. Box 424

South Heights, Pa 15081

Hamfests & General Announcements



Two Rivers Amateur Radio Club Inc. of McKeesport PA
P.O. Box 225
Greenock, PA 15047

Web Site: www.trarc.net
Hamfest Email: petersondt@verizon.net
Amateur Exams: veteam@trarc.net
General Information: information@trarc.net

47th ANNUAL HAMFEST/COMPUTER SHOW

Sunday April 8, 2018 8 am – 2 pm

THE BOSTON SPECTRUM-- 6001 SMITHFIELD ST. – BOSTON, PA 15135

www.bostonspectrum.com

(General Location: Pittsburgh, PA Southern Suburbs)

"The Boston Spectrum" is located off of PA Route 48 near the city of McKeesport, PA.

Landmarks Include: The "Boston Bridge" and the "Yough River Trail"

GPS Coordinates: 40°13'7" degrees North—79°8'22" degrees West

Amateur Radio Directions: 146.73 MHz Repeater – Mobile Check in: 146.52 MHz

**** Admission \$5.00 ****

* Main Prizes *

ICOM 7300

Predator 4000 Portable Generator

Yaesu FT 65R Dual band hand held

Heil Sound Pro Set 6 Headset

Other Prizes Drawn throughout the day

50/50 Drawing and 2 Black Box Drawings

* Large Exhibitor Area With Tables For Rent At \$10 each *

Table Reservations: Phone: 412-398-1092 -- Email: petersondt@verizon.net

Exhibitor Setup Open on show day at 6am-Limited Exhibitor Setup on Saturday Evening

* Amateur Radio Exam Testing Available and also Card Checker *

Exam Registration: 412-751-9657 -- Email: veteam@trarc.net

* Breakfast and Lunch Available *



AN ARRL APPROVED HAMFEST



Contest Corral

April 2018

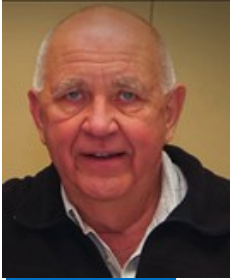
Check for updates and a downloadable PDF version online at www.arrl.org/contests.

Refer to the contest websites for full rules, scoring information, operating periods or time limits, and log submission information.

Start - Finish Date-Time	Date-Time	Bands	Contest Name	Mode	Exchange	Sponsor's Website
1 1900	1 2030	3.5	RSGB RoLo SSB	Ph	RS, previous 6-char grid square received	www.rsgbcc.org/hf
2 0800	8 2000	1.8-UHF	IQRP Quarterly Marathon	CW Ph Dig	RS(T)	www.arimontebelluna.it
2 1900	2 2030	3.5	RSGB 80-Meter Club Championship, CW	CW	RST, serial	www.rsgbcc.org/hf
3 0200	3 0400	3.5-28	ARS Spartan Sprint	CW	RST, SPC, power	arsqr.blogspot.com
4 1900	4 2000	3.5	UKEICC 80-Meter Contest	Ph	4-char grid square	www.ukelcc.com
5 1700	5 2000	3.5	SARL 80-Meter QSO Party	Ph	RS, serial, grid locator	www.sarl.org.za
5 1700	5 2100	28	NRAU 10-Meter Activity Contest	CW Ph Dig	RS(T), 6-char grid square	www.nrau.net
7 0400	7 0800	7	LZ Open 40-Meter Sprint Contest	CW	Serial, serial received from previous QSO	www.lzopen.com
7 1000	8 0400	14	PODXS 070 Club PSK 31 Flavors Contest	Dig	SPC, mbr or name	www.podxs070.com
7 1200	8 2359	1.8-50	SKCC Weekend Sprintathon	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
7 1400	7 2200	3.5-28	Florida State Parks on the Air	CW Ph Dig	Park ID or SPC	flspota.org/rules
7 1400	8 0200	3.5-UHF	Mississippi QSO Party	CW Ph Dig	RS(T), county or SPC	www.arrmiss.org
7 1400	8 2000	1.8-UHF	Missouri QSO Party	CW Ph Dig	RS(T), county or SPC	www.w0ma.org
7 1400	8 2000	1.8-UHF	Texas State Parks on the Air	CW Ph Dig	RS(T), park abbreviation or SPC	www.tspota.org
7 1500	8 1500	1.8-28	SP DX Contest	CW Ph Dig	RS(T), SP province or serial	www.spdxcontest.pzk.org.pl
7 1600	8 1600	3.5-28	EA RTTY Contest	Dig	RSQ, EA province or serial	concursos.ure.es/en/earthy
8 0000	8 0400	3.5-14	North American SSB Sprint Contest	Ph	Other station's call, your call, serial, name, SPC	ssbsprint.com/rules
9 0000	9 0200	1.8-28	4 States QRP Group Second Sunday Sprint	CW Ph	RS(T), SPC, mbr or power	www.4sqrp.com
9 1900	9 2300	144	144 MHz Spring Sprint	CW Ph Dig	4-char grid square	sites.google.com/site/springvhfupprints
11 0030	11 0230	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or power	naqcc.info
11 1900	11 2030	3.5	RSGB 80-Meter Club Championship, SSB	Ph	RS, serial	www.rsgbcc.org/hf
14 0000	14 2359	1.8-28	QRP ARC Spring QSO Party	CW	RS, SPC, mbr or power	qrp-arcl.org
14 0700	15 1300	1.8-28	JIDX CW Contest	CW	RST, JA Prefecture or CQ zone	www.jidx.org/jidxrule-e.html
14 1200	15 1200	1.8-28	OK/OM DX Contest, SSB	Ph	RS, OK/OM county code or serial	okomdx.crk.cz
14 1400	15 0200	1.8-50	New Mexico QSO Party	CW Ph Dig	Name, county or SPC	www.newmexicoqsoparty.org
14 1800	15 1800	1.8-144	North Dakota QSO Party	CW Ph Dig	RS(T), county or SPC	www.kg0yl.net/QSO.html
14 1800	15 2359	1.8-50	Georgia QSO Party	CW Ph Dig	RS(T), county or SPC	www.georgiasqsoparty.org
14 2100	15 2100	1.8-28, satellites	Yuri Gagarin International DX Contest	CW	RST, ITU Zone	gc.qst.ru/en/section/32
15 1200	15 1800	3.5-14	International Vintage Contest HF	CW Ph Dig	RS(T) + 4-char grid square	www.contestvintage.beepworld.it
15 1200	15 2200	3.5-14	WAB 3.57/14 MHz Data Modes	Dig	RS, serial, WAB square or country	wab.internip.net
15 1500	15 1700	3.5	Hungarian Straight Key Contest	CW	RST, serial, power code	hskc.ha8kuz.com
15 1800	15 2359	3.5-50	ARRL Rookie Roundup, SSB	Ph	Name, 2-digit year first licensed, state/province/XE area/DX	www.arrl.org/rookie-roundup
16 0100	16 0300	1.8-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or power	qrpcontest.com/pigrun
17 1900	17 2300	222	222 MHz Spring Sprint	CW Ph Dig	4-char grid square	sites.google.com/site/springvhfupprints
20 2100	21 2100	1.8-28	Holyland DX Contest	CW Ph Dig	RS(T), 4X area or serial	iar.org/iar/#HolylandContest
21 0500	21 0859	3.5-7	ES Open HF Championship	CW Ph	RS(T), serial	www.erau.ee
21 0600	22 0559	3.5-28	Worked All Provinces of China DX Contest	CW Ph	RS(T), China province or serial	www.mulandxc.org/438
21 1200	22 1159	3.5-28	YU DX Contest	CW Ph	RS(T), YU/YT county or serial	www.yudx.yu1srs.org.rs
21 1200	22 2359	3.5-28	OCMM DX Contest	CW	RST, continent abbreviation, category	www.ocmmdx.com/rules
21 1300	22 2200	1.8-UHF	Nebraska QSO Party	CW Ph Dig	RS(T), county or SPC	qcwa.org/chapter025.htm
21 1600	22 0400	3.5-28	Michigan QSO Party	CW Ph	Serial, county or SPC	www.miqp.org/Rules.htm
21 1700	22 1300	3.5-28	EA-QRP CW Contest	CW	RST, category, "M" if member	www.eaqrp.com
21 1800	21 2159	1.8-50	Feld Hell Sprint	Dig	RST, mbr, SPC, grid	sites.google.com/site/feldhellclub
21 1800	22 1800	1.8-144	Ontario QSO Party	CW Ph	RS(T), county or SPC	www.va3cco.com/oqp
25 0000	25 0200	1.8-28	SKCC Sprint	CW	RST, SPC, name, mbr or power	www.skccgroup.com
25 1900	25 2000	3.5	UKEICC 80-Meter Contest	CW	4-char grid square	www.ukelcc.com
25 1900	25 2300	432	432 MHz Spring Sprint	CW Ph Dig	4-char grid square	sites.google.com/site/springvhfupprints
26 1900	26 2030	3.5	RSGB 80-Meter Club Championship, Data	Dig	RST, serial	www.rsgbcc.org/hf
28 0001	29 2359	28	10-10 International Spring Contest, Digital	Dig	Name, mbr or "0", SPC	www.ten-ten.org
28 1200	29 1200	3.5-28	SP DX RTTY Contest	Dig	RST, SP province or serial	pkvrg.org/strona.spdxrttyen.html
28 1300	29 1259	1.8-28	Helvetia Contest	CW Ph Dig	RS(T), canton or serial	www.uska.ch
28 1600	29 2159	7-28	Florida QSO Party	CW Ph	RS(T), county or SPC	floridagsqsoparty.org/rules
29 1700	29 2059	3.5-28	BARTG Sprint 75	Dig	Serial	www.bartg.org.uk

All dates refer to UTC and may be different from calendar dates in North America. No contest activity occurs on the 60-, 30-, 17-, and 12-meter bands. Mbr = Membership number. Serial = Sequential number of the contact. SPC = State, Province, DXCC Entity. XE = Mexican state. Listings in blue indicate contests sponsored by ARRL or NCJ. The latest time to make a valid contest QSO is the minute listed in the "Finish Time" column. Data for Contest Corral is maintained on the WATBNM Contest Calendar at www.contestcalendar.com and is extracted for publication in QST 2 months prior to the month of the contest. ARRL gratefully acknowledges the support of Bruce Horn, WATBNM, in providing this service.

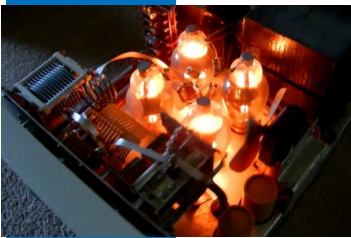
Bits and Pieces



I had such a great time talking with Tony Pavilonis, W6PEF for the April newsletter. Tony has a very interesting perspective of Ham radio, past & present. He was licensed in 1960. His father didn't know much about electronics. Tony's father introduced him to his uncle Al. Al was an "Original Radio Guy". He taught Tony the fundamentals about electronics. Tony soon was building things. He continues today. Ham radio has had a big effect on every aspect of his life. Tony said: *There was this Mickey Rooney movie that showcased amateur radio. The premise was*



how ham radio operators saved the day by the use of their radios after a natural disaster. I was getting interested in amateur radio. My father knew nothing about radio, he knew who did! Dad took me to visit my uncle Al, he was into ham radio. A few days later Uncle Al came to our house. He had twin Gonset radios mounted in his car. He had to rev the engine to get full power from the generator to transmit with the Gonset's sixty watts. We contacted California! I was hooked. And continue to enjoy the many facets of ham radio today. Ham radio is one hobby that you do not have to be operating a radio to enjoy or benefit from, having fun. I build all kinds of electronic things and have a blast! This hobby is for independent thinkers. The technical lessons my uncle gave me have served me well in so many aspects of my life, not just ham radio. I have built radios from kits and surplus stuff. The electronic principles have boiled over into things such as my home built guitar amplifiers. I was once invited to my kid's school class, I helped show them how to take a bunch of pieces and make a crystal radio. There were some doubters; after we put together those pieces, we strung a wire across the class room. The entire group had opportunity to hear a radio station picked up by the class-built crystal radio amplified by one of my DIY guitar amps.



On air I enjoyed making a rare DX contact on 75 meters with Navassa Island. I made the contact with a fifty year old National NCX-5 radio. This old radio doesn't do modern day split. I was lucky enough that I was able to listen on one frequency then tune "up-10" and get the contact. I enjoy the old radios; the hands on tuning, the glow of the tubes, in winter the heat from them warms my radio room. I don't have a good way to put up an antenna where I live now. I was at a "Pilot fuel station" and purchased a temporary antenna mount made from vice gripping pliers. I clamp them on to the door of my airplane hangar with a "Hamstick" antenna in the gripping pliers mount. The door goes up about 25-30 feet; this is how I get on the air for now.

Tony has lived what I know only as history when it comes to Ham radio. I enjoyed my short visit this time, I will be visiting him more as we get opportunity. If you get an "opportunity" to visit with Tony, be sure to get a personal view of radio as it was. He can also give you some insight to enjoying today's radio hobby.

Be courteous on the air, be safe and have fun with your hobby.

Till next month, 73 KC3BXC.

Interview with a Ham

Monthly Interview with a Ham operator

Name : *Tony Pavilonis*

Call sign : *W6PEF, Extra Class*

Year of first FCC License : *December 9, 1960*

Did you ever make a crystal radio? *Yes, I got a whole school class to each build one.*

Did you ever listen to short wave radio? *Yes, my uncle Al had a Hallicrafters SX-100.*

Did you ever use CB radio? *Yes, as an adult, during car travels.*

How did you get interested in Ham Radio? *There was a Mickey Rooney movie that featured ham radio as the hero, then my uncle Al really got me interested. He was truly the "Radio Guy".*

Did you ever build a ham radio? *Yes, a Heathkit DX60.*

What was your first radio? *The Heathkit DX60 I built, I still have it right here.*

What was your first antenna? *A wire up under the house eaves, it didn't work very well.*

What is your current antenna & radio? *A Hamstick antenna on the door of my airplane hanger.*

What is your favorite mode to operate? *Any mode that gets out.*

Your most memorable contact? *I operated at the ARRL, W1AW. Had a pileup! It was so much fun.*

What was your most fun contact? *Navassa Island on 75 meters on a National NCX-5.*

What part of the hobby interests you the most? (Field Day, home brewing, contesting, Hamfest, restoring old radios)
Building stuff and having it work (It's not so great when it doesn't work).

Have you ever been on a fox hunt? *No, I think it would be fun.*

Do you use a logging program? (what is it) *Yes... a pen and paper (an Old ARRL log book).*

Would you purchase a Software Defined Radio? *I think the concept is cool. I like the tactile sense of radio. I like hands-on radio. SDR is not something I would pursue.*

Do you use automation with your ham radio? *No.*

If you had a magic wand and could change ham radio what would you change and why? *I would like to go to the Allied store in Chicago...The old time surplus stores, I like to build things.*

Where do you see ham radio in ten years? *The bar is getting higher everyday. Think what ever you can imagine... then up that. You can take two pills and work DX from your tummy in the morning; nano technology.*

It's Your Dime

Remember back when you could communicate by "Pay Phone" for ten cents? This page is for anyone who wants to communicate with the BVARA community and beyond. Please send me your article that you would like posted on this page. Please, only topics and language in good taste. As the editor I reserve the option to post it or ignore it. Send your dime to me at: kc3bxc.73@gmail.com



Some Interesting Links



Crystal radio <https://www.sciencebuddies.org/blog/crystal-radio-a-science-kit-for-student-electronics?from=Pinterest>

Fox hole radio <https://cactusbush.wordpress.com/tag/foxhole-radio/>

Ten secrets to ham radio <http://www.dummies.com/programming/electronics/ten-secrets-about-jumping-into-ham-radio/>

100 things to do with Ham radio <https://www.nfarl.org/HamInfo/100Things.html>

100 things to do <http://www.barrowhamradio.org/images/articles/100%20Things%20in%20Ham%20Radio.pdf>

Ham radio fun <http://hamradio.world/category/fun-stuff/>

Ham radio fun <https://heilsound.com/heil-amateur-radio/more-heil/ham-fun/>

Hey get into Ham radio <http://www.qsl.net/kd4sai/intro.html>

Ham related gifts <https://www.cafepress.com/+ham-radio+gifts>

Ham gifts <http://www.hamshirts.com/>

Ham radio <https://www.redpitaya.com/n23/4-interesting-facts-about-ham-radio>

What's new at your shack

Here is a DIY project to get your Standing Wave Ratio down.



Many people know how crystals have interesting scientific properties. The *photovoltaic effect*, is the conversion of light into electricity using crystalline semiconducting materials that exhibit the photovoltaic effect. The *piezoelectric effect*, when a crystal is subject to mechanical stresses it produces electricity. This is the science of how a phonograph needle works. The *Peltier effect*, to create a heat flux between the junction of two different types of materials, taking bismuth crystals, putting an electrical charge through them and causing temperature to be affected. This is science for a TE cooler. There is a little known way of using crystals to lower your SWR. It sounds too easy to be true.

You take this wax mixture and put it on your antenna feed line (works equally well on ladder line or coax). It sounds odd but it really works.

You will need a small mixing bowl, glass is the best. Metal is not recommended, even stainless steel can introduce a small amount of negative impurity on the crystalline structure. (Plastic may be okay. Experiment.) What you need are some crystals, simple table sugar and liquid furniture wax. Make sure the furniture wax does not contain stain or colorings. They interfere with the crystalline structure of the mixture and will have a negative affect on the way it works. You will also need a natural hair paint brush. Do not use anything else. Synthetic bristles will contaminate the mixture with unnecessary/negative producing chemicals. Again breaking down the crystalline structure.



You mix 2:1, two parts sugar to one part wax in a glass bowl. Next place the mixture in the oven. Heat cannot be over 200 Fahrenheit or 94 Celsius. Only heat the mixture to the temp and remove it from the heat. It can then be applied directly to your feed line as soon as it is cool enough for you to handle it. It doesn't have to be perfect, just apply it to the feed line the best you can. The sugar crystals will cause the SWR to lower and the wax keeps the sugar from dissolving in the rain.

Test your SWR. If it is not low enough apply more "Wax" to areas that you may have missed or have little on them. You will see an immediate lowering of your SWR only on April 1st!



73 KC3BXC



For All Radio Operators

2018 Field Trip to the National Weather Service In Moon Township

WINTER PREPAREDNESS



Radar



Current Weather



Rivers & Lakes



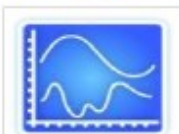
Satellite



Weather Information
Display



Forecast Maps



Hour by Hour Forecast



Winter Weather



Weather Hazard Briefing



Text Products/Statements



Report Severe Weather



Skywarn



Forecasters' Discussion



Climate Plots



Fire Weather



NOAA Weather Radio



Flood Climatology



Severe Weather
Climatology

Description: Have you ever thought about how important the role weather plays in our lives? Most people check on weather conditions on a daily basis to help them get to work on time, plan for rain or snow, cover their flowers and vegetables when a killing frost is forecast, or make emergency preparations when severe weather conditions are imminent. The weather forecast guides what clothes we will wear and even the route that we will take for our vacation. Join the BVARA as we visit the National Weather Service for an 'up close' look at what these meteorologists do for the public.

When: Monday evening shortly before 6:30 PM on April 23rd we'll meet at the NWS parking lot. This early evening time will give those that work the opportunity to join us.

Where: The NWS is located on 192 Shafer Rd, Coraopolis, PA 15108. Parking lots on the property will be available for us.

Who: All club members are invited, but an accurate count is needed of those who feel like they would like to be included. Only nine slots are open for us. Another group will also be there and parking is limited. Bring your HT if you wish.

Why: Because it's there and has ham radio equipment for Skywarn and other conditions.

What: The cost to our BVARA club members is free. Car pools can make driving easier and there are no parking costs for their lot. A weather balloon launch is also planned during our visit.

Deadline: No later than Sunday, April 15th to: K3SOM@ARRL.net or (724) 847-0610.