# THE eQRM

MAY 2019



### The BVARA in Beaver County Pennsylvania

Beaver Valley Amateur Radio Association

W3SGJ

Repeater 145.310 PL 131.8

On the Cover Here is a great photo of the Beaver River passing under three bridges as it's flow ends in the Ohio River. This shows off some of the many bridges here in Beaver County, Western Pennsylvania

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#### Check into our nets

Wednesday 2 Meter	Wednesday 10 Meter
8:30PM on 145.310 MHz PL 131.8	9:00PM on 28.470 MHz

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### **ARRL Foundation Announces Memorial Scholarship**

#### A special scholarship has been set up by the Hanna family

#### in memory of Dick Hanna, K3VYY, SK.

April 15, 2019

The ARRL Foundation has announced the Dick Hanna, K3VYY, Memorial Scholarship. Created through the generosity of the Hanna Family in memory of J. Richard "Dick" Hanna, K3VYY, of Beaver Falls, Pennsylvania, this scholarship is intended exclusively for educational use, to provide assistance with the cost of tuition, room, board, books and/or other fees essential to the higher education of the recipient. Preference is given to applicants residing in Western Pennsylvania or in Eastern Kentucky.

The applicant must:

- be a US citizen, but without regard to gender, race, national origin, handicap status, or any other factor.
- be performing at a high academic level (grade point average of 3.0 or higher).
- hold a valid FCC-issued Amateur Radio license, with preference given to applicants holding a General-class license or higher.
- be enrolled in an accredited 4-year college or university and pursuing a degree in a science, math, engineering, or technology-related field, or in an accredited program in aviation or fire science.

The grant will be \$1,000 annually, with the first scholarship expected to be awarded in 2020. The ARRL Foundation Board of Directors will disperse the scholarship funds to the recipient's school of choice. Scholarships are for the exclusive use of the recipient.

Hanna was first licensed in 1962 as KN3SVL. He died in 2017. Survivors include his wife Pamela, WB3BHJ, and sons Doug, N4YKQ, and Brian, KF7ORO.

http://www.arrl.org/news/arrl-foundation-announces-dick-hanna-k3vyy-memorial-scholarship

### Who We Are

#### 2019 BVARA OFFICERS

President: Jack Spencer, KZ3Z Vice President: Dan Grazulis, KB3VSP 2nd Vice Pres.: Doug Hanna, N4YKQ

Treasurer: Pam Spencer, W3PMS

Secretary: Norm Trunick, K3NJT

Director: Tony Pavilonis, K3AHP

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).

Club Meetings 2019 May 09 Jun 14 Jul 11 Aug 24 Corn Roast Sep 12 Oct 10 Nov 14 Dec 07 Christmas Party

Jan 09 2020 Feb 13 Mar 12









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## This Month

### This Month:

#### Speaker:

Rich Soltesz K3SOM

#### Topic:

ICOM IC-7300 Remote Operation

#### **Including:**

Continuing with our BVARA Presentation Series this year, our topic this month deals with an additional update to our February presentation and hands-on demonstration of the very popular ICOM IC-7300. We'll expand on the features and functionality of the radio by describing, demonstrating, and exploring the myriad possibilities of remote operation by using the ICOM RS-BA1 Remote Control Software.

Priced at around \$100 for both Version 1 and the USB cable from your local DX Engineering location in nearby Ohio, this software provides easy access to a high percentage of the controls and operation of the ICOM-7300 including your panadapter. The software operates with a Client-Server architecture where your shack PC fills the role of a Server for your remote operation. If you are on vacation or at a location away from your home, then your laptop or second PC can connect to your Server over the Internet for remote operation of your ICOM-7300. It's neat stuff! Maybe you just want to operate from your patio or deck or location within your home Wi-Fi range. No problem!

We'll show you first how to make a few additional changes within the 'Menu – Set' area for 'Connections' changes to the CI-V USB Port on the ICOM-7300 and corresponding baud rate required for the Panadapter. Next, we'll review the installation of the RS-BA1 software on both the Server and the Client. Then we'll configure the ICOM Remote Utility software on both the Server and the Client for access to the Server and to the Radio.



# This Month

But wait, there's more! We'll cover Port Forwarding on a Comcast Router using the Comcast Web Page Application (this is easier than the words would leave you to believe!). Then we'll discuss signing up for a Direct DNS service that allows your IP Address for your connection to 'stay the same' no matter what Verizon or Comcast or whoever does to your IP address at the Router that everyone in the world can access. My DDNS service provider is free but if you want to, you can pay North of \$60 a year for a feature-laden service. Once that last step is

done and you've created a UID and PWD list longer than your arm and secure your connections against those starving Internet hackers in Uzbekistan who are skilled artisans of their trade, you are free to operate remotely!

Finally, we'll start up the ICOM Remote Control software after the Remote Utility has established the connection. With a press of the 'CONNECT' button, the Remote Control software will come alive with



signals from my ICOM-7300 and Doublet Antenna at home with the antenna set for the 40-Meter band. With a click on the 'SCOPE' button, a new window will open with the familiar Panadapter display as we configured it two months earlier at that presentation.

If the propagation gods smile favorably upon us, we may even be fortunate to work Roberto once again from his QTH in Northern Italy. If time permits, we'll explore some easy ways to control power and switching via readily available Internet-accessible cell phone apps. New technologies create challenges and remote operation has a few skeletons in the closet. Time permitting, we can discuss some of these. Rumor has it that Alexa is studying for her Technician exam. She does not want to send any paper QSL cards though. Stay tuned!

#### **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.

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 RAC-ES/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) 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



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 May 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 1394 QS7, pp 27-30, and Feb 1395 QS7, pp 34-36, for more details. The predictions assume an observed 2800-MHz solar flux value of 74. This is a Very Low level of solar activity. See the detailed propagation these on *The ARRL Antenna Book CD-ROM*.



The East Coast propagation chart listed here is for May 2019.

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



# 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 is the successful participant in our VE process this past month:

Paul Dordal, KC3MGP - General, Pittsburgh PA was successful in upgrading his license through our VE process.

\* **Special Announcement:** Tony Pavilonis, K3AHP has been recently trained and is now accredited by the American Radio Relay League to serve as a Volunteer Examiner for Amateur Radio license examinations. Tony joins Bart Stack, KB3NFM who also received his accredited status this year as a Volunteer Examiner.



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 A	RRL	
Sign up for:		Price	
BVARA full members	hip 2	25.00	
BVARA student memb	pership 1	5.00	
BVARA associate mer	nbership 1	0.00	
BVARA Child under 2	1 at home membership 5	5.00	
One year ARRL membe	ership 4	9.00	
A Club Donation			
ARRL Member? Yes	No	Total Enclosed	
Your License Class (If you have Class (If you have) Class General Advanced Extra Class	Name Address Email Phone Your Call sign		

Make check or money order payable to:

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

South Heights, Pa 15081

### Hamfests & General Announcements

No Western Pennsylvania Hamfests for the month of May but there is one coming in June...



#### 2019 HAMFEST + ARRL "WPA SECTION CONVENTION"

Web Site http://www.breezeshooters.org

Email: hamfest@breezeshooters.org

#### BIG BUTLER FAIRGROUNDS

1127 New Castle Road (Rt. 422) - Prospect, PA 16052 June 1 Saturday: 8am to 5pm & June 2 Sunday: 8am to 2pm

Main Prize Drawing:

1<sup>ST</sup> ICOM IC7610 2<sup>ND</sup> AMERITRON AL-811H- *800W Amplifier* 3<sup>RD</sup> YETI 400 LITHIUM PORTABLE POWERSTATION 4<sup>th</sup> KENWOOD THD74A 5<sup>TH</sup> YAESU FT-7900r DUAL-BAND MOBILE 6<sup>TH</sup> Hustler 6BTV 6-Band VERTICAL ANTENNA 7<sup>TH</sup> N3ZN KEY  8<sup>TH</sup> IMAX 2000 10M 24' BASE ANTENNA
9<sup>TH</sup> BUDDISTICK PORTABLE ANTENNA
10<sup>TH</sup> LMR 400 COAX-100 FEET DONATED BY CAPITOL ELECTRONICS
11<sup>TH</sup> KB3IFH QSL CARD GIFT CERTIFICATE DONATED BY RANDY DORMAN
12<sup>TH</sup> FOX DELTA AAZ-0217MX ASSEMBLED

Half Hour prizes based on Admission tickets

\*Black Bag Prize Drawing

Tickets will be available at local hamfests prior to the Breezeshooters Hamfest. Check www.breezeshooters.org for locations.

Winners need not be present for Main Prize or "KJI Gift Certificate" Drawing- Main Prize Drawing - Sunday at 2:00 pm All prizes subject change due to availability

Icom, Yaesu, Kenwood and Ameritron prizes from K JI Electronics

- Admission: Good for both days \$ 10.00 donation per person, (Age 12 and over)
- Tailgate/Flea Market spaces available \$ 15.00 per space 20'x 30' (good for both days). Reservations strongly recommended.
- Fairgrounds open at 5:00 am Saturday June 1 & 5:00 am Sunday June 2– For Vendor and Tailgater set up
- License testing at 7:30 am Saturday & 12:00 pm Sunday for all Amateur License Classes
- ARRL and DXCC Card Checking & Informational forums by the ARRL.
- "Indoor Tables available on first come first serve basis. \$25.00 per 8' table, add \$10 if Electric is required. Call 412-389-1739 for reservations. Cut off date is May 20<sup>th</sup> - Limited quantity available
- Overnight camping \$25 per night spaces are limited, reserve early. Pasta dinner Saturday \$15 PayPal"- \$12 cash or check in advance.

ADVANCED TICKET SALES								
Main Prizes Dra	\$2 Each	3 for 5	\$5 7	for \$10	15 for \$20	40 for \$50	90 for \$100	
\$500 KJI Gift Certificate Drawing			\$5.00 each - ONLY 200 TICKETS SOLD					
ENCLOSED CHECK IN THE AMOUNT OF: \$			Send a Self-Addressed Stamped Envelope to: Advance Ticket Sales, Breezeshooters Hamfest PO Box 101018, Pittsburgh, PA 15237					
Make check Payable to the l	. Mail Dea	Mail Deadline is May 20, 2019. Ticket Stubs returned in your SASE!				ASE!		
NAME:		CALL:		PH	IONE: (	) -		
ADDRESS:								
CITY:	ZIP:	EMAIL:						

### Hamfests & General Announcements

# Hamvention

May 17, 18, & 19, 2019

Hamvention, the world's largest amateur radio gathering at Greene County Fairgrounds.

#### FLEA MARKET AND INSIDE EXHIBITS

#### TICKETS ARE GOOD FOR ALL THREE DAYS

#### \$27 DAY OF EVENT

Friday: 9 AM to 5 PM Saturday: 9 AM to 5 PM Sunday: 9 AM to 1 PM



These are the Greene County Fairgrounds and Expo Center located at 210 Fairground Road, Xenia, Ohio 45385 Coordinates are 39.702 N - 83.9420 W. Hamvention boasts over 500 indoor exhibits and over 2,500 outdoor exhibits, showcasing the latest in amateur radio equipment, technology, computer software and hardware - along with hard-to-find radio and computer accessories and equipment.

### Radio Sport

### **Contest Corral**

### May 2019

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.

Date	Start - e-Time			Bands	Contest Name	Mode	Exchange	Sponsor's Website
1	1300	1	1900	3.5-28	AGCW QRP/QRP Party	CW	RST, serial, class ID	agcw.org/index.php/en
2	1700	2	2100	28	NRAU 10-Meter Activity Contest	CW Ph Dig	RS(T), 6-char grid square	nrau.net/activity-contests
2	1900	2	2100	1.8-28	SKCC Sprint Europe	CW	RST, SPC, name, mbr or power	www.skccgroup.com
3	2300	4	0300	All	MIE 33 Contest	CW Ph	RS(T), age, "ME" or "MEJ" (if either)	www.ztv.ne.jp/isoda/33/ annual/41/41rule-e.html
4	0000	5	1600	50, 144	Araucaria World Wide VHF Contest	CW Ph	RS(T), 6-char grid square	www.avhfc.com/rules/en.pdf
4	0001	5	2359	28	10-10 International Spring Contest, CW	CW	Name, mbr or "0," SPC	www.ten-ten.org
4	0600	5	2359	2.3 GHz and up	SBMS 2.3 GHz and Up Contest	CW Ph Dig	6-char grid square	n6nb.com/sbmsrules.htm
4	0800	4	1400	All above 902	Microwave Spring Sprint	CW Ph Dig	6-char grid square	sites.google.com/site/ springvhfupsprints
4	1200	5	1159	3.5-28	ARI International DX Contest	CW Ph Dig	RS(T), 2-letter province or serial	www.ari.it
4	1300	5	0700	1.8-28	7th Call Area QSO Party	CW Ph Dig	RS(T), 5-letter state/county code or SPC	ws7n.net/7QP
4	1500	5	0300	1.8-28	Indiana QSO Party	CW Ph	RS(T), county or SPC	www.hdxcc.org/inqp
4	1700	4	2100	3.5-28	FISTS Spring Slow Speed Sprint	CW	RST, SPC, name, mbr or power	fistsna.org
4	1700	5	2359	1.8-VHF	Delaware QSO Party	CW Ph	RS(T), county or SPC	www.fsarc.org/qsoparty
4	2000	5	2359	3.5-28	New England QSO Party	CW Ph Dig	RS(T), county+state or SPC	www.neqp.org
7	0100	7	0300	3.5-28	ARS Spartan Sprint	CW	RST, SPC, power	arsqrp.blogspot.com
11	1200	12	1159	1.8-28	CQ-M International DX Contest	CW Ph	RS(T), serial	cqm.srr.ru/en-rules
11	1200	12	1200	3.5-28	VOLTA WW RTTY Contest	Dig	RST, serial, CQ zone	www.contestvolta.com
11	1200	12	2359	1.8-50	SKCC Weekend Sprintathon	CW	RST, SPC, name, mbr or "none"	www.skccgroup.com
11	1400	12	0200	3.5-28, 144	Arkansas QSO Party	CW Ph Dig	RS(T), county or SPC	www.arkqp.com
11	1700	11	2100	3.5-28	FISTS Spring Unlimited Sprint	CW	RST, SPC, name, mbr or power	fistsna.org/operating.html#sprints
11	2300	12	0300	50	50 MHz Spring Sprint	CW Ph Dig	4-char grid square	sites.google.com/site/ springvhfupsprints
12	1000	12	1400	7	WAB 7 MHz Phone/CW	CW Ph	RS, serial, WAB square or country	wab.intermip.net
13	0000	13	0200	1.8-28	4 States QRP Group Second Sunday Sprint	CW Ph	RS(T), SPC, mbr or power	www.4sqrp.com
13	1900	13	2030	3.5	RSGB 80-Meter Club Championship, SSB	Ph	RS, serial	www.rsgbcc.org/hf
16	0030	16	0230	3.5-14	NAQCC CW Sprint	CW	RST, SPC, mbr or power	naqcc.info
17	0900	19	1700	3.5-28	Portuguese Navy Day Contest	CW Ph Dig	RS(T), mbr or serial	www.nra.pt
18	0600	18	2100	3.5-28	UN DX Contest	CW Ph	RS(T), district code or serial	undxc.kz/bez-rubriki/2015-2
18	0800	19	1100	3.5	NZART Sangster Shield Contest	CW	RST, serial, branch number (if ZL)	nzart.org.nz/activities
18	1200	19	1200	1.8-28	His Majesty King of Spain Contest, CW	CW	RST, province or serial	concursos.ure.es/en
18	1200	19	1200	3.5-28	EU PSK DX Contest	Dig	RST, EU area code or serial	www.eupsk.com
18	1200	19	1200	3.5-28	Aegean RTTY Contest	Dig	RST, serial	www.aegeandxgroup.gr
18	1600	18	2159	1.8-50	Feld Hell Sprint	Dig	RST, mbr, SPC, grid	sites.google.com/site/feldhellclub
18	2100	19	0200	3.5	Baltic Contest	CW Ph	RS(T), serial	Irsf.lt/en/balticcontestrules
20	0100	20	0300	1.8-28	Run for the Bacon QRP Contest	CW	RST, SPC, mbr or power	grpcontest.com/pigrun
22	0000	22	0200	1.8-28	SKCC Sprint	CW	RST, SPC, name, mbr or power	www.skccgroup.com
22	1900	22	2030	3.5	RSGB 80-Meter Club Championship, Data	Dig	RST, serial	www.rsgbcc.org/hf
25	0000	26	2359	1.8-28	CQ WW WPX Contest, CW	CW	RST, serial	www.cqwpx.com
30	1900	30	2030	3.5	RSGB 80-Meter Club Championship, CW	CW	RST, serial	www.rsgbcc.org/hf

All dates refer to UTC and may be different from calendar dates in North America. Contests are not conducted on the 60-, 30-, 17-, or 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 WA7BNM 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, WA7BNM, in providing this service.

84 May 2019 QST www.arrl.org

### Bits and Pieces

Hello all,

Old man winter just doesn't want to let the warmth of spring come to Western Pennsylvania. There have been a few nice warm days but the cool days are still with us. There is some rain mixed in there too. These not so desirable days may be hampering your big plans for a Radio related or Antenna upgrade you want to deploy. Be assured that nicer weather is on the way. In the meantime get every detail worked out. Make sure you have the parts and



pieces you need, also have the help you need lined up too. Never be afraid to ask for help. There is no excuse for getting injured because you didn't ask for some help. My personal experience has been that fellow Hams are always ready to help. Plan your upgrade like a precision military operation. Things can always go wrong but a good plan is always best. Also give me a bit of a heads up as to what you are up to. I sure would like to share it in the pages of the eQRM Newsletter.

Hamfest season is on the way! I enjoy hamfests in the summer. It is so much fun to see what's for sale, get in on a chance to win something, or as I usually end up doing, donating to their Club. It is always great to have a face to face QSO with friends I haven't seen all winter. I enjoy the Forums presented at hamfests. There is always something new for me to learn. The "all things radio" comradery is the best for me. Some of the hamfests are held at the sponsor's Club House. It is fun and interesting to see how each group holds their hamfest. I encourage you to plan on visiting a few hamfests and have fun.

On the 17, 18 and 19<sup>th</sup> of May there is this "little" Ham thing going on in Xenia Ohio you may want to attend. The Dayton Hamvention! This year promises to be the best yet. For more information you can check it out at <u>https://hamvention.org/</u>.

There was so much to put in the Newsletter this month! I hope you enjoy reading it as much as I enjoyed writing it.

Till next month 73 KC3BXC clear but I'll be listening...

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

### 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: <u>kc3bxc.73@gmail.com</u>



### It's Your Dime

#### 2019 Field Trip to the Coolspring Power Museum

Description\*: Coolspring Power Museum is located in western Pennsylvania in the community of Coolspring, which is adjacent to Route 36 about midway between Punxsutawney to the south and Brookville to the north. Coolspring is in Oliver Township, Jefferson County. Coolspring Power Museum presents an illuminating history of the evolution of internal combustion engine technology that put an end to the steam powered era. The museum's collection includes over 275 stationary engines housed in more than 35 buildings and outdoor displays.

Stationary gas hit and miss engines, throttle governed engines, flame ignition engines, hot tube ignition engines, and hot air engines are all among the permanent exhibits at the *Coolspring Power Museum* in Coolspring, Pennsylvania. Engines in the museum's collection range in size from fractional horsepower up to 600 horsepower.

When: For those who would like to carpool, we will meet on Saturday morning shortly before 9:00 AM on May 18<sup>th</sup> in Chippewa. The drive will take approximately two hours and 10 minutes from Chippewa Township. This weekend time and date will give those that work during the week the opportunity to join us. If you wish, you are free to drive yourself and join us at the *Coolspring Power Museum* at 11:00 AM.

Where: The Coolspring Power Museum is located on 179 Coolspring Road, Coolspring, PA 15730. There should not be a problem with parking. Museum phone number is: (814) 849-6883

Who: All club members are invited, but an accurate count is needed of those who feel like they would like to be included. Bring your HT if you wish as there are many engines and buildings to visit.

Why: Because it's there and it provides an interesting history of the technology.

What: The cost to our BVARA club members is \$8 for admission. Car pools can make driving easier. A buffet and/or a restaurant are available for dinner after the visit for those wishing to join us.

Deadline: No later than Friday, May 10th, 2019 to: K3SOM@ARRL.net or (724) 847-0610.



\*Courtesy of Coolspring Power Museum at <u>http://coolspringpowermuseum.org/index.htm</u> where much more information is available.

### It's Your Dime

#### Rich Soltesz, K3SOM *Topic:* <u>Club Construction Project</u> <u>Including:</u> <u>Build this Dummy Load/Wattmeter Project and See 'Watts' Up</u> <u>Details:</u>

In the November, 2018 issue of *QST Magazine* is a description of a Group Project that clubs can readily implement as a tool for showing people how to solder, how to build something of use to them as hams, as well as a venue for specific questions about how to use it and how to interpret the results.

What's unique about this project is that this Dummy Load includes a digital display of the output power to the Dummy Load to four significant digits. The display is an OLED Display that draws very low power that is connected to an Arduino Nano PC controller board. Everything is powered from a conventional 9-volt battery with an external ON-OFF switch. Think of it: an OLED Display driven by a microcontroller using analog inputs and I2C outputs with a voltage divider, rectifier and filter for the RF voltage that is proportional to watts. The display unit plugs into the top of a paint can and you just turn the switch on to measure those beautiful watts out. What's not to like about this project?

The dummy load consists of 20 resistors in parallel that are rated at three watts each and that are wired in parallel to achieve an aggregate resistance of 50 ohms, with an error of less than 0.1 ohms! The resistors are immersed into a one-quart clean, paint can that has been filled with non-toxic mineral oil. The completed unit can easily handle up to 150 watts for reasonable lengths of time.

But wait, there's more! The Arduino program (called a Sketch) that drives the display will be individually calibrated and programmed to the measured resistance of your dummy load. In addition, your call sign will appear on the OLED Display for the first five seconds after the unit is turned on so that your buddies will know who's the man!

Parts are being accumulated into kits and some pre-drilling and alignment steps are being accomplished by both Bob Winkle, N3AZZ and I to ensure a higher probability of success. We have targeted ten kits for the initial run and will be adding <u>your</u> name to nine others beginning with the April 10<sup>th</sup> Club Monthly Meeting. By accumulating components at quantity levels, we have been able to help lower the costs to about \$35 per dummy load for all new components. Payment can be in either one or two installments with final payment due when the kits are distributed and group construction is arranged.

A Few Slots are Still Open to Join this Construction Project. Please Contact Rich – K3SOM to Be Included.

# Of Interest to All Radio Enthusiasts

Jim Samuels has these interesting small kits and projects that he has decided to put on sale to club members. Some of them look like very interesting kits!

#### Looking for Some Small-Project Bargains?

Jim Samuels, Jr., W3BG has **For Sale** some items that are priced to sell to those who enjoy building and learning or want to try their hand at building a kit for the first time. If you are interested in any of these items, please give Jim a call at (610) 695-9013.

Item Description	Additional Information
Baofeng UV 5-R+ VHF/UHF rig w/program	Purchased for use on a CA trip - now excess to my
cable for use with Chirp	needs
Pic-EL Kit - The PIC Elmer 160 Project Board	https://amqrp.org/elmer160/board/index.html
Ft Smith QRP Group Marker Generator	http://www.norcalgrp.org/files/manuals.htm
DDS Daughterboard Kit - high precision - 30	https://amqrp.org/kits/DDSamp/index.html
MHz signal source	
Tony Parks SoftRock 40 Receiver Kit	The original SDR kit that started a radio revolution
	http://www.softrockradio.org/softrock/
	models-throughtime/softrock40
Parallel Port Dongle Programmer for use with	
Steve Weber's ATC QRP transceivers	
American QRP L-C Meter Kit	A low-cost L-C Meter with audible Morse readout,
	constructed Manhattan-style.
Atlanticon Crystalizer Kit - a 10 MHz VXO	http://njqrp.club/atlanticon/Crystalizer.html
crystal osc. Freq standard	
NJQRP Sniffer Kit - Tunable Multiband Field	http://njqrp.club/sniffer/index.html
Strength Meter	
TAPR HPSDR - Atlas - the backplane Kit	See TAPR.com