



VOLUME 69 ISSUE 9
Sept 2018

PPRAA Club Officers

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Secretary	<u>Curtis Cookson, WØCEC</u>
Treasurer	<u>James Madsen, K3ILC</u>
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Webmaster	<u>Douglas Nielsen, N7LEM</u>
Board	<u>John Bloodgood, KDØSFY</u>
Board	<u>Glenn Brodt, N3ULW</u>
Board	<u>Dan Huber, KNØMAP</u>
Board	<u>Frank Rogers, KB3PDT</u>
Board	<u>Jim Rader, KDØNQM*</u>
Board	<u>Jim Bishop, KDØKQL*</u>
Board	<u>Virgil Yost, NØXRS*</u>
Board	<u>Ray Uberecken, AAØL</u>

* In final year of 2-year term

All officers can be contacted at: boardmembers@ppraa.org

Positions up for reelection

Board Member	John Bloodgood, KDØSFY*
Board Member	Glenn Brodt, N3ULW*
Board Member	Dan Huber, KNØMAP*
Board Member	Frank Rogers, KB3PDT*

Monthly Ham Breakfast



Saturday, Oct. 6, 2018 8-9:30 AM

(719) 260-7721

La Tartine, 1420 Kelly Johnson Blvd.

All are warmly invited to come on down and join us!



Oct. PPRAA Club Meeting

The Oct. 10th 7PM club meeting will be at the IHOP on Stetson Hills Blvd
(just west of Powers Blvd).

5749 Stetson Hills Blvd.

Upcoming events

PPRAA Face book

<http://www.facebook.com/pages/PPRAA-Pikes-Peak-RadioAmateur-Association/185833894769325?v=wall>

Contests and Events

WA7BNM contest calendars link

<http://www.hornucopia.com/contestcal/>

2018 ARRL Rocky Mountain Division Convention

- Friday September 21 thru Sunday September 23, 2018
- Isleta Resort & Casino Convention Center
- More info [here](#).

JOTA – Jamboree-on-the-Air

- 19-21 October 2018
- More info [here](#).

TechFest – 2018

- Saturday November 3, 2018
- More info [here](#).

The New Improved Nevada QSO Party in October!

The Sierra Nevada Amateur Radio Society is proud to present the Nevada QSO Party which will be an annual event on the second full weekend in October. This year it will start at 2000 hours Nevada time (PDST) on Friday, October 12 (0300z 10/13/2018) and run until 1400 on Sunday, October 14 (2100z 10/14/2017)

The objective of this contest is to activate and work all 17 of the counties in Nevada. Nevada stations will work anyone, anywhere, and out of state stations will work Nevada Stations. All stations may be worked on the three different modes for up to three times on each HF band and only once on the VHF+ frequencies. Rovers in Nevada can be worked again when they change counties.

The state of Nevada is one of the rarest U.S. States on the air. Be sure to work Nevada in the

upcoming Nevada QSO Party; it will be helpful you when going for ARRL WAS (Worked All States award) and other awards like grid zones and counties.

The VHF+ band will consist of all legal frequencies from 50 MHz up to 1300 MHz. In order to bring a lot of new hams into contesting, we are allowing the use of repeaters on these frequencies. There are linked systems which will allow out of state contacts. All modes will be allowed with the exception of the WSJT modes.

On the HF side, Phone, CW, and Digital modes will add multipliers to the QSO points. All conversational digital text modes are allowed with all counting the same. Currently, the WSJT modes do not have a contest exchange message that is handled as a valid regular message, so those modes are not allowed. (This may be changed if this is added to the WSJT program in the future)

Logging software from N1MM will have the ability to work on this contest. For those that are using paper and pencil or some other logging method that does not produce a Cabrillo file, we also have the WA7BNM Cabrillo log maker which will allow you to build a Cabrillo file. All entries over 10 contacts must submit an electronic Cabrillo log.

We also have a sign-up form to allow stations to sign up for the counties which they will activate and what modes they will be using. We are going to try and get operators out in all counties and have all modes covered. Please use this form if you are going to be operating in Nevada.

The Nevada QSO Party website is <http://nvqso.com/> Complete rules are listed under the "Rules" tab and please read the FAQs for additional information. Information is subject to change on the website so be sure to check back regularly. Please visit this site often and pass the word onto your friends!

We are looking forward to your participation in this contest!

==30==

For further information on this news release, contact Jim Shepherd at W6US@SNARS.ORG

Fellow Rocky Mountain ARRL Members,
Time is slipping away fast and the Division Convention will be here

very soon. During the Division Convention, we recognize those deserving members for their outstanding contributions to our ham community.

The deadline for submitting nominees for The Rocky Mountain Division Young Ham of the Year, The Technical Achievement Award and The Ham of the Year is August 24. Please visit the Division Website;

<http://www.rockymountaindivision.org/wp/awards/>

Here you can print out and mail in your submissions or submit them directly via the web ap. The rules are listed on the webpage as well.

Thank you for your support and commitment to the ARRL and amateur radio in the Rocky Mountain Division.

73,

Dwayne Allen, WY7FD
ARRL Director
Rocky Mountain Division
WY7FD@arrl.org

Jeff Ryan, K0RM
ARRL Vice-Director
Rocky Mountain Division
K0RM@arrl.org

ARRL Rocky Mountain Division
Director: Dwayne Allen, WY7FD
wy7fd@arrl.org

You shop. Amazon gives.

Treasurers Report ug 2018

Total	\$17,289.37
Income	\$1800.00

73

Jim Madsen
K3ILC Treasurer, PPRAA

June 2018 General Meeting Minutes

Call to Order @ 7:00pm WV7T
No program
45 people in attendance
Tabled Club Picnic until July Board Meeting

Motion to Adjourn @ 8:08pm N7LEM, Second WV7T

July Board Meeting Minutes

CTO @ 6:30pm by Rich ADONP

In Attendance, N3UIW, WV7T, AAOL, KDONQM, W0CEC, N6JRL, N7LEM, KDOSFY, WA0BCM, KB3PDT, NOXRS, N4HYF, ADONP, K3ILC.

Silent Key Rick Brown KOSU

New Business

WV7T Picnic options at Ellicott Fire Station 8-18 or 8-25.

N7LEM will make a recommendation for upgrading computers.

KDOSFY ask club to establish a PIO.

NOXRS request better management of club property

Discussed repair of indicator on Beam Antenna

Motion to buy 3 tech books for \$108.00 N3ULW, Second AAOL, All in Favor.

Motion to pay \$70 for PO BOX KDONQM, Second WV7T, All in Favor.

Motion to buy meal for MegaFest crew for \$262.75 N6JRL, Second WV7T, All in Favor.

Motion to buy Sympathy Card for \$5.73 N4HYF, Second WV7T, All in Favor.

Motion to buy VE testing supplies \$43.78 N7LEM, Second WV7T, All in Favor.

Motion to spend \$540.00 (Education money) on training PC's, Second N4HYF, All in Favor.

Motion to Adjourn @ 7:28pm KDONQM, Second N4HYF, All in Favor.

July General Meeting Minutes

CTO @ 7:00pm by ADONP

Club Voted to have picnic on 8-25-18

Club approved \$540.00 for new training PC's

K3ILC Treasurer Report

KD0DFY PPARES supporting Pikes Peak Ascent and Marathon Aug 18th and 19th.

N6JRL Youth Expedition PJ2Y on July 19th - 24th.

WV7T Elections in October

Meeting Program on EchoLink

Motion to Adjourn @ 8:48 KDONQM, Second K3ILC, All in Favor.

I haven't received "official notification", but it appears our 2018 \$1,000 scholarship has been awarded. I received the following thank-you card in PPRAA's mailbox today from Anna Veal, WØANT. The return address on the envelope was from Littleton, CO. Since she will be attending UCCS, maybe we can get her to join our club. ☺
See images below.

73

Jim Madsen
K3ILC
Treasurer, PPRAA

To the members of PPRAA,
Thank you so much for the
Scholarship. I am excited to
go to school down in Colorado
Springs at UCCS and will majoring
in Computer Science. The money
that you have provided will
certainly help pay for my
first year of school. It is
amazing how much amateur
radio can do.

Warmest 73's,

Anna Veal
WØANT

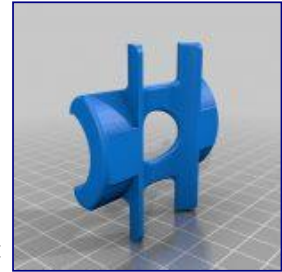


3D printed parts for ham radio

By Dan Romanchik, KB6NU

One of the things that I keep telling myself that I need to learn how to do is 3D printing. This morning, I ran across a couple more 3D printing projects for ham radio that I thought I'd pass along.

The first I found on reddit: 3D Printed Parts for Portable Tape Measure Yagi Designs (https://www.reddit.com/r/amateurradio/comments/963br3/3d_printed_parts_for_portable_tape_measure_yagi/). The summary on Thingiverse (<https://www.thingiverse.com/thing:3042505>), which is a website where “makers” share their designs, says:



These parts are made for use with 1-in. PVC pipe and 1-in. Harbor Freight tape measure steel. You can use electrical tape to attach the element holders to the side of the pipe, and use the driven element bridge to give structural rigidity across the driven dipole element. I have used this with up to 5 elements on 2m with good success. When not using the antenna, just pinch the elements to remove them from the holders, and store them INSIDE the tube! you can add some end caps to make this ultra portable. Use these parts with any of the multitude of tape measure YAGI design guides online.

Here's a look at an antenna made with these parts:



The element holders are attached to the boom with electrical tape in the photo above. While I haven't tried it, I'd suggest that the antenna might be a bit more robust if you could screw or perhaps glue the holders to the boom.

There are lots of other cool amateur radio 3D printing projects available on Thingiverse (<https://www.thingiverse.com/search?q=ham+radio&dwh=415b6d8da129c3c>). Browsing through the list quickly, here are just two that look like they might be useful to me:

- Soldering Fingers (<https://www.thingiverse.com/thing:1725308>). This project looks simple and quick.
- μ Bitx Case (<https://www.thingiverse.com/thing:2925336>). I still gotta do something with the μ Bitx I bought. This looks like it might get me started.

Finally getting in gear

Last week, I attended a 3D printing class at our local maker space, All Hands Active (allhandsactive.org), and now I feel like I can finally attempt a 3D printing project. I'm thinking about starting out with the simple Soldering Fingers project. If that goes well, I'll try a Raspberry Pic case and finally start using that in the shack. And, while these projects all seem pretty cool, I feel like I'm only scratching the surface.

Have any of you 3D printed anything cool for your ham radio projects? Is there another source of designs for ham radio 3D printed stuff besides Thingiverse?

When he's not 3D printing enclosures for his ham radio projects, Dan blogs about amateur radio, writes exam study guides (www.kb6nu.com/study-guides), and operates CW on the HF bands. Look for him on 30m, 40m, and 80m. You can email him about your experiences with 3D printing at cwgeek@kb6nu.com.

I have been publishing this technical article since January of 2013. For the past 39 years I have manufactured the Isotron Antennas. This also involved helping many with their very difficult installations. Some of the information will be from what we learned solve these problems. Some information will be right from a text book or credible article.

You are welcome to contact me at

wd0eja@isotronantennas.com with questions you may have.



ISOTRON 80/40

GET READY FOR THE FALL HF SEASON

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THE BEST WAY TO OPERATE HF

EASY INSTALLATION

EXCELLENT PERFORMANCE

DURABLE CONSTRUCTION

CC&R FRIENDLY (XYL ALSO)

MULTI-BAND ANTENNAS

Many antennas used will resonate on more than one band. This is good, it saves a lot of space and can make the installation easier. What are some of the techniques for multi-band antennas?

Some of it can be the nature of the antenna. A 1/2 wave dipole will work well on the third harmonic. For example, a dipole cut to resonate on 7 Mhz can work also on 21 Mhz. Here you have a two band antenna with little effort. Regretfully these are the only two amateur HF bands that the third harmonic hits. A 3.5 Mhz dipole will come close to 10 Mhz for the 30 meter band if you are desperate.

How can you get the other bands you want to use?

One way is the Fan dipole. This is an antenna with a dipole for each band. As an example, consider 80, 40 and 20 meters.

The feed point of each dipole is connected together at one point. The center side of the coax is connected to all three dipoles on one side of the dipole. The shield side of the coax is connected the same way to the other side of the dipole.

The ends of each dipole will fan out or suspend from the dipole of the next lower frequency antenna. Spacing is not critical, but you would want several inches of spacing.

Now comes your knowledge of resonance. There will be some interaction to the antennas which will make the size of each dipole a little different than the formulas predict. Therefore, locate the resonant point for each dipole. If you are using a fancy analyzer, use the SWR mode only at the end of the coax that you plan to use. The length of the coax will have an affect on your results.

Scan the band you are testing and locate the minimum SWR. Then, adjust the length of the dipole to raise or lower that point where you want it.

Then go to the next antenna. You may have to do this several times to get all the antennas to resonate where you want. With an 80, 40, 20 set up you can have four band capabilities because 15 meters will work also.

What is the principal. When one antenna is resonant with a signal put into it, the other antennas are so far out of whack that they will look like an open circuit. Your transmitter or receive will mostly see one resonant antenna.

This is how we accomplish multi-bands with the Isotrons and it is a whole lot easier to work on. (Had to put in a plug.)

Working on an antenna like this will give you good experience on locating the resonant points. This will be beneficial with most antenna work.

73,
Ralph WD0EJA
SEPT 2018

BILAL COMPANY
137 MANCHESTER DR.

FLORISSANT, CO. 80816 U.S.A
PH/FX: 719/687-0650
wd0eja@isotronantennas.com

A Field Guide to Simple HF Dipoles is packed with all kinds of goodies like this. Download it (<http://www.dtic.mil/dtic/tr/fulltext/u2/684938.pdf>) right now.

When he's not building dipoles or teaching ham radio classes, Dan blogs about amateur radio, writes exam study guides (www.kb6nu.com/study-guides), and operates CW on the HF bands. Look for him on 30m, 40m, and 80m. You can email him about your experiences with simple HF dipoles at cwgeek@kb6nu.com.

From the annals of PPRAA history

September 1981:

Biz Wichy WDØHCO, who left the area recently to live and work on Kwajalein Island in the Pacific drops a line to the club to tell what life's like out there. Novice classes will begin on September 15 at North Jr. High School, taught by NØDV (CW) and KBØKQ (theory). The club turns down a request for a public service event because the event was politically oriented, but The club will hold its picnic at the Black Forest Recreational Area on September 13. Field Day went very well up on Rampart Range Road, even though the Army had some kind of site set up there at the same time. The club moved down the road a bit. The work on the club bylaws and the nonprofit status are on hold. Doug Moloney WBØMHP, Bill Allen and Dave Vierling NØDV will work on the federal forms. A newly formed public service committee has been formed consisting of Doug WBØMHP, Bob Poirer KØDJ, Mike Stansberry KØTER and Warren Rubin WBØSJR. The August meeting will be an ARRL question and answer session, with Lys Carey KØOGM ARRL Rocky Mountain Division Director, Marshall Quiat AGØX vice director, and maybe Carl Smith WØWBJ, ARRL vice president. Finally, the Royal Gorge ARC will hold a swapfest at August 23. suggested that members could support it without support from the club.

ARRL Outgoing QSL Bureaus

www.arrl.org/outgoing-qs1-service

ARRL affiliated-club stations may use the service when submitting club QSLs for its members in bulk ("pooling" their members cards together in one package) by indicating the club name inside the package. Club secretaries should check club affiliation on the ARRL web site to ensure that their affiliation is current. In a "pooled" package, each club member using this service **must also be an ARRL member**. Cards should be sorted "en masse" by prefix and a proof of membership should be enclosed for each ARRL member. QSLs for unaffiliated club calls may also be sent via the outgoing bureau to foreign destinations if the trustee of the club call is a member in good standing. The trustee's proof of membership must be included with the club call-QSLs.

Parker Radio Association

PPRAA Team,

Be sure to join us for our weekly nets Monday and Tuesday evenings!

First, Monday, at 8:30pm, on D-Star XRF223B, the PRA holds its D-Star net. There is plenty of conversations from everything digital to the latest projects and devices... from DStar / DMR / Fusion / Brandmeister / Hotspots, and even CW. This can be accessed via your local hotspot. Also, many have linked via the WOCDS 2M repeater as well. Considering our KOPRA repeater is being relocated, using the WOCDS 2M side would be best (please follow common/courteous practice when linking).

Second, at 8:00pm on Tuesday, is the PRA weekly analog net on the WOCFI 448.675 – (100Hz) repeater. This is a great way to catch up on the happenings of the PRA and is a great environment to ask any question related to the hobby or to give yourself some bragging rights on a recent license, upgrade, or new piece of equipment.

We'll see you on the air!

73,

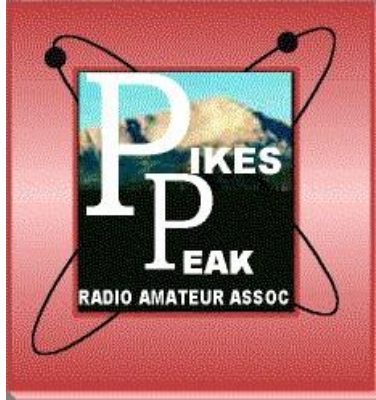
KØPRA

Your Friends at the Parker Radio Association

www.facebook.com/parkerradioassociation

parkerradio.org

[@ParkerCORadio](https://twitter.com/ParkerCORadio)



PPRAA VE EXAMS

(MONTHLY)

PPRAA VE session has relocated and will be held at 10:00 am on the second Saturday of the month at **EL Paso OEM, Mark Dabling near Fillmore, Colorado Springs, CO 80908**. This may soon be changing to a different address.

TESTING IS FREE. Applicants will need the following items at the session:

1. A valid **PHOTO ID**, driver's license preferred (if you do not have a valid photo ID, please call for alternative identification requirements).
2. Your **FRN NUMBER** (now required – this includes children).
3. Your **ORIGINAL amateur radio license** (if any) **AND a PHOTOCOPY** for the VE Team to keep.
3. The **ORIGINAL of any relevant CSCEs** you have **AND a PHOTOCOPY** for the VE Team to keep.

PPRAA VE Team policy, as with many VE Teams, is to not allow same day retests on failed exams. Anyone passing their Technician Class examination at a PPRAA test session will receive a free year's membership to the Pikes Peak Radio Amateur Association.

Dennis Major NOABC, PPRAA VE Contact, 719-213-1109

Jim Bishop kd0kql@hotmail.com, 719 332-5283



MARC VE EXAMS

(January, March, May, July, September, November)

The Mountain Amateur Radio Club (MARC) VE Team conducts VE exam sessions in Woodland Park every odd month at 10 am on the first Saturday in the Community Meeting Room of the Woodland Park Library, 218 East Midland Avenue. The MARC VE Team is affiliated with the ARRL/VEC and examinations for all classes of license will be offered.

Full information, including driving directions to the Woodland Park Library, is available under "VE Sessions" on the MARC website at <http://www.nx0g.org/ve.html> or contact Wes Wilson (KØHBZ) at k0hbx@arrl.net or call (719) 687-8758.

If attending, please BE SURE to bring the following items to the session:

A valid PHOTO ID, driver's license preferred (if you do not have a valid photo ID, please call for alternative identification requirements).

- 1. Your FRN NUMBER** (now required – this includes children).

2. Your **ORIGINAL** amateur radio license (if any) **AND** a **PHOTOCOPY** for the VE Team to keep.
3. The **ORIGINAL** of any relevant **CSCEs** you have **AND** a **PHOTOCOPY** for the VE Team to keep.
4. **Cash, Check or Money Order for \$15** (standard ARRL VE Fee). Checks and money orders should be made out to MARC and covers all the different exams you wish to take at the VE session.

MARC VE Team policy, as with many VE Teams, is to not allow same day retests on failed exams. For already licensed hams, MARC members should be monitoring the MARC repeater system 146.820- or 448.650- (both 107.2 Hz) if you need help with talk-in. 73 Dean Buckhouse

Online Practice Test Sites



Study for your Amateur Radio License exam:

[Technician \(2014-2018\)](#)

[General \(2015-2019\)](#)

[Amateur Extra \(2016-2020\)](#)

[Other...](#)

HamExam.org Amateur Radio Practice Exams

Log in using <https://hamexam.org> or click [**register**](#) to create an account. If this is your first visit to the site, please read my brief [**introduction**](#).

QRZ.COM <https://www.qrz.com/hamtest/>

Eham <https://www.eham.net/exams/>

AA9PW.COM

Membership Application
Pikes Peak Radio Amateur Association, Inc.
P.O. Box 16521, Colorado Springs, Colorado 80935

Date: _____ New Membership Renewal

Name: _____

E-mail address: _____

Address: _____

City: _____ State: _____ Zip: _____

Call: _____ License Class: _____ Telephone: _____

Are you an ARRL member? Yes No

Additional Name: _____ Call _____ Class _____ ARRL member? Yes No

Additional Name: _____ Call _____ Class _____ ARRL member? Yes No

Additional Name: _____ Call _____ Class _____ ARRL member? Yes No

Full Member - \$15.00

Full Member over 65 - \$10.00

Free - VE Signature Required:

Family Membership (same address) - \$18.00

Family Membership (both over 65) - \$12.00