

PIKES PEAK RADIO AMATEUR ASSOCIATION (PPRAA)

Activities/Meetings

- The November HAM breakfast was at:
Sarges Grill
Hwy 86/87
Fountain

The December 5th HAM breakfast will be at
Black Bear Diner
975-A N. Academy Blvd
Colorado Springs

Join us between
8:00-9:30 AM
All are warmly invited

- PPRAA Board Meeting
Mon, December 7th
- PPRAA Christmas Party,
Wednesday, December 9th
at Country Buffet
801 Academy Blvd North
- 10 Meter/2 Meter net
Every Thursday 7:00 pm
28.390 MHz—USB
144.200 MHz—USB

Inside this issue:

Officers 2
Online Resources
Monthly Activities

Club Station 3

Minutes: Board 4
Activities

Minutes: Membership 5

What is a tuner 6

Heath Kit 7

Licensing 8

Select Contests 9
Winter FieldDay
Nat. Parks on the Air

Application 10
Scholarship



Volume 65 Issue 11

November 2015

PPRAA Election results

The PPRAA elections are held yearly in October.

The officers are:

- ⇒ Raleigh Holcomb, N4HYF retained his position as club president.
- ⇒ Rich Milligan, ADØNP is the new Vice-President
- ⇒ John Wishart, NGØI, is again the club Secretary.
- ⇒ Pam Scott, WØPRS retains the position of treasurer.

The board of directors are 2-year positions. Board members having 1 year remaining to their term are:

- ⇒ Dan Martin, KDØSMP
- ⇒ Glenn Brodt, N3ULW
- ⇒ Frank Rogers, KB3PDT

Board member just elected, and therefore starting their 2-year term are:

- ⇒ Jim Rader, KD0NQM
- ⇒ Jim Bishop, KDØKQL
- ⇒ Virgil Yost, NØXRS
- ⇒ Mike Anderson, WV7T

The two appointed positions are the 0-Beat editor and the Webmaster:

- ⇒ Dan Scott, WØRO (0-Beat)
- ⇒ Doug Nielsen, N7LEM (Webmaster)

PPRAA Club T-Shirts



The PPRAA T-Shirts have been ordered. If you ordered a T-Shirt but have not yet paid, please send your \$20 to the PPRAA PO box as listed on the back page.

The shirts are a fund raiser to the PPRAA Scholarship fund.

Hope to see you looking snazzy in your own PPRAA T-shirt soon!



PPRAA Scholarship Fund—Matching Funds

Now is an excellent time to make a donation to the PPRAA Scholarship Fund. Due to the success of last year's Megafest Raffle, the club has can afford to

match up to \$500 worth of cash donations. Please turn to the back page of this ØBeat for more information.



PPRAA Officers and Board of Directors

PPRAA Board of Directors consists of four elected officers, seven board members, as well the past president (time limit dependent). The Ø-Beat editor is a board appointed position and is also a member of the board.

Officers include:

- ⇒ President
- ⇒ Vice-President
- ⇒ Secretary
- ⇒ Treasurer

To send board member's email, browse to the officers section of our website: <http://ppraa.org/about-ppraa/officers>

President	Raleigh Holcomb	N4HYF
Vice-President	Rich Milligan	ADØNP
Secretary	John Wishart	NGØI
Treasurer	Pam Scott	WØPRS
Board Member	Dan Martin	KDØSMP
Board Member	Glenn Brodt	N3ULW
Board Member	Frank Roger	KB3PDT
Board Member	Jim Rader	KDØNQM
Board Member	Jim Bishop	KDØKQL
Board Member	Virgil Yost	NØXRS
Board Member	Mike Anderson	WV7T
Ø-Beat Editor	Dan Scott	WØRO
Webmaster	Doug Nielsen	N7LEM

Online Resources

PPRAA Website

<http://ppraa.org>

The PPRAA website is the cornerstone for club related information, events, and technical information.

In addition you can register, pay dues, and submit donations. Donations to the PPRAA college scholarship fund are managed by FAR Scholarship Committee

Facebook / Google+

Follow activities as they unfold, or get reminders of upcoming events.

Links to both Facebook and Google+ social media sites can be found on the PPRAA.org.

Or from each social media site search on: Pikes Peak Radio Amateur Association.

PPRAA Forums

The PPRAA forums are intended to allow users to exchange ideas, ask and answer amateur radio related questions, and plan/discuss upcoming events.

This is a fantastic, but underutilized, tool. Check it out and register at:

PPRAA.Forumotion.net

Monthly Activities

Membership Meeting

Held the 2nd Wednesday of the month starting at 7:00.

IHOP
5749 Stetson Hills Blvd
(Just west of Powers Blvd)

NOTE: Many show up at 6 pm for kibitzing and grub.

Board Meeting

IHOP
5749 Stetson Hills Blvd Colorado Springs, CO 80906

6:30pm—8:00pm
On the Monday preceding the membership meeting.

Board Meetings are open to all members.

Ham Breakfast

Location changes monthly: Check ppraa.org or table of contents, page I for the breakfast meeting location.

10 Meter/2 Meter Net

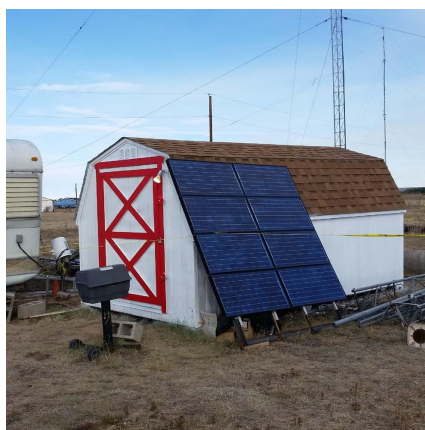
Every Thursday at 7pm
Starts on 28.390 USB then transitions to 2 Meter SSB at 144.200 USB.



PPRAA Club Station



The PPRAA station is up and running with a number of wire antennas, a Butternut vertical antenna and with one tower with a beam.



Due to the generous donations the first tower was erected and fitted with one of our club beams.



Antennas exist for 6-meter down to the 180 meter band.

Solar power can run 3 stations indefinitely.

The current plan is to move the club's remote HF station to this location sometime in November.



If pictures are worth a thousand words, then this is a long article!



PPRAA Board Meeting Minutes—12 October 2015

PPRAA BOARD MEETING MINUTES
12 October 2015

Call To Order - 18:29

Approval of the September Meeting Minutes - Dan S motions to approve as published, Jim R seconds, board approved

Committee reports

Treasurer's Report - \$13,358.54

Antenna Committee - main tower sections are up, top will go up Friday. Beam will go up then too. Would like help raising the last bit. Rotor has been cleaned up and working again.

Scholarship Fund - report not available

Club station - have done some work to eliminate a large voltage drop. Ed recommends buying two more batteries in the future to help alleviate drainage and for backup. Would enable 4 operating positions. DC has been extended to all positions.

Zero Beat - Still need articles! Submit articles to zerobeat@ppraa.org with [ZeroBeat] in the subject and/or [cc w0prs@me.com](mailto:w0prs@me.com) for guaranteed receipt

Christmas Party - Jim R motions to hold the Christmas party at Country Buffet on Academy if available, fallback to IHOP, Diana seconds. Board approves

ARES - Tour De Cure didn't have enough controllers but used APRS. Helped with an accident. Next events are the holiday dinners for the salvation army. Sign up on the PPARES website. Simulated emergency test this Saturday 0800-1300.

Remote station - awaiting station rearrangement before moving

Tech Ed -contact Mike A, WV7T, for one-on-one classes.

Club shirts - awaiting payments

Around the Table

Doug - Hamcon lanyard and pin were passed around. Website will go live around Dec 1.

CCARC meeting on Saturday at 1pm in Canon City. Committee members will be wearing bright green shirts.

Mike A - offers picture frames for club calls' licenses, trying to dig up more stuff for the station. Need cw keys. Have lamps for each position. Need operating journals/logs for sign in.

Raleigh - a special event for the antenna completion

Virgil - need to consider security for the station. Need a lock box in the station for the storage shed.

Michael D - Dennis, N0ABC is looking for a new VEC. Possibly moving the location and going to monthly. Scholarship - do we have any changes to our requirements? Consensus says no. Makes a motion for the club's education fund to match dollar for dollar up to \$500 scholarship donations, excluding external sources. Only matches direct donations. Doug seconds. Motion passes.

John - 146.475, interference, looking for a bearing.

Next Board Meeting: November 9th, Location: IHOP, BOTH INCOMING AND OUTGOING BOARD MEMBERS MUST ATTEND

Adjourn - Jim R moves, Dan seconded, 20:11

Activities in the Rocky Mountain Division

Jan 23 Northern Colorado ARC Winter Hamfest (Loveland, CO)

Jan 30 Albuquerque Winter Tailgate Swapfest (Albuquerque, NM)

Feb 7 The Swapfest (Brighton, CO)

Feb 27 2016 New Mexico TechFest (Albuquerque, NM)

May 13-15 2016 ARRL Rocky Mountain Division Convention (Keystone, CO)

Jul 8-9 ARRL Utah State Convention / Great Salt Lake Hamfest (Sandy, UT)

Jul 9 (tentative) PPRAA Megafest

Aug 12-14 2016 New Mexico State Convention / Duke City Hamfest (Albuquerque, NM)

PPRAA General Meeting Minutes—14 October 2015

PPRAA GENERAL MEETING MINUTES
14 October 2015

Call To Order – 19:00

Introductions

Silent Keys - Warren Hickey, WØYNE

Approval of the September Meeting Minutes - John W moves to accept as published on the website and in the zero beat, Mike A seconds, club approves

Committee reports

Treasurer's Report - \$13,358.54

Christmas Party - 7-8:30pm Wednesday Dec 9th at Country Buffet on Academy. This is the December meeting.

Tower Report - First tower is mostly up. Will be completed on Saturday 17 Oct.

Club T-Shirts - See Glenn, N3ULW to pay for or order a shirt. Profits will go to the scholarship fund

Zero Beat - Need more articles! Please send them to zerobeat@ppraa.org as often as you wish. Include [ZeroBeat] in the subject and/or cc:

w0prs@me.com to guarantee receipt.

HamCon 2016 - Will be in Keystone on May 13-15. Registration will begin around Dec 1st. Early Bird will end February 12th.

ARES - Need volunteers for the Salvation Army holiday dinners. Visit PPARES website for more information. Need volunteers to help hunt down some interference.

HR-1301 - US House of Rep version of CO 5315-041. Do not have our local rep (Lamborn) co-signing it yet. Please contact ARRL to send a letter to your local rep.

Senate Bill 1685 - A similar bill to HR-1301 has been introduced into the Senate. Visit the ARRL's website to send a letter to your Senator.

Scholarship Fund - Club will match dollar for dollar direct donations up to \$500.

Remote Station - Awaiting technology checks before being moved to the club location

Tech Ed - contact Mike Anderson, WV7T for licensing classes

Elections -

President - Raleigh Holcomb, N4HYF

Vice President - Rich Milligan, ADØNP

Secretary - John Wishart, NGØI

Treasurer - Pam Scott, WØPRS

At Large 1 - Dan Martin, KDØSMP

At Large 2 - Glenn Brodt, N3ULW

At Large 3 - Frank Rogers, KB3PDT

At Large 4 - Jim Rader, KDØNQM

At Large 5 - Jim Bishop, KDØKQL

At Large 6 - Virgil Yost, NØXRS

At Large 7 - Mike Anderson, WV7T

Webmaster - Doug Nielsen, N7LEM

Ø - Beat Editor - Dan Scott, WØRO

10m Net - 28.390 USB at 7pm on Thursdays.

Club Breakfast: Nov 7th starting at 8am, Location: Sarges' Grill, 6436 US-85, Fountain

Next Meeting: Nov 11th, Location: IHOP

Adjourn - Galen motions, Doug N seconds, 20:34





ISOTRON 80/40

GET READY FOR THE FALL HF SEASON

Columnist Ralph Bilal, WDØEJA is the president of Bilal Company. Ralph has been a presenter at the PPRAA club meetings.

What is in a tuner?

I have been publishing this technical article since January of 2013. For the past 35 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 question you may have.

Many stations use Antenna Tuners. From Amateur to AM Broadcast stations. What is this device made of? How efficient are they?

There are several variations of Tuners. However, there are 3 designs that are quite common. The "L" network, the "pi" network and the "T" network.

The "L" type tuner is quite simple. From the output of the transmitter you have a capacitor directly across to ground. After the capacitor there is an inductor (coil) in series to the antenna. Using the reactances of these components you can match an antenna to a transmitter where the antenna is not 50 ohms. Also you can match an antenna that is not resonant.

The math concerning the

reactances can be quite complex. To keep it basic, the larger the C value indicates the antenna is of a higher impedance (Z) than the transmitter. The coil is used to cancel the reactance so the entire antenna system is resonant. The smaller the C the opposite occurs. The results also depends on the frequency of the transmitter.

A "pi" network is the same as the "L", with a capacitor added to ground after the coil. This type of tuner has more range and can handle larger mis-matches. Usually the capacitors are variable and the coil is switchable by the operator.

The "L" network is popular in the automatic tuners. Normally you can hear relays switching rapidly on the automatic tuners. It is selecting through a variety of "L" networks to make the match. This circuit is quite efficient and offers little loss to a mis-matched antenna when matched.

The "pi" network will do much the same, but you mainly use 3 components that are variable. Usually the operator does the adjusting. The circuit is also quite efficient.

When higher powers are used, the "L" and "pi" networks can get a bit large physically. Therefore, a "T"

network or match is incorporated.

The circuit has 2 capacitors in series between transmitter and antenna. An Inductor is between the capacitors and connects to ground. With 2 reasonably sized (physically) variable capacitors and a variable coil, You can match a very wide range of values.

The "T" match is popular for the higher power tuners. The disadvantage is, it can have up to a 28% loss to the antenna. This is usually overcome with the higher power.

Tuners are an important device to have for any station. It actually matches the mis-match. It is not fooling the transmitter as some have thought. Used reasonably, the tuner will make your station more versatile and effective.

73,

Ralph WD0EJA
November 2015

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Florissant, CO 80816

PH/FX: 719/687-0650
wd0eja@isotronantennas.com

A new Heathkit! So why am I not excited?

By Dan Romanchik, KB6NU

Let me know what you think.

E-mail me at:

cwgeek@kb6nu.com.

By Dan Romanchik, KB6NU

A new Heathkit! So, why am I not excited?

By Dan Romanchik, KB6NU

A couple of weeks ago I got an e-mail from Heathkit. Yes, the NEW Heathkit. you might remember that a couple of years ago, there was all this hype about a "new" Heathkit and how they were going to start designing new kits as well as revive popular old designs.

Then, nothing. They went completely quiet—until a couple of weeks ago. In an e-mail sent to their "insiders," they say:

"Dear Heathkit Insider,

"What I really hope Heathkit will produce,' a Silicon Valley colleague recently told me, 'is a new radio kit with a beautiful finish, maybe in rosewood.' Something great to enjoy building and learn from, and also visually stunning, so he could put it in his living room and keep it forever.

"Today, my friend gets his wish.

They then go on to explain all of the work they've been doing in relocating Heathkit to Santa

Cruz, CA, acquiring a second company, and securing all the intellectual property rights to the old Heathkit manuals and logos (meaning no more bootleg copies on the Internet). The e-mail continues:

"That's a lot, but there's more. We've designed and developed a wide range of entirely new kit products. We authored the manuals for these kits, complete with the beautiful line art you rely on, preserving and respecting our iconic historic Heathkit style. We developed many new inventions and filed patents on them.....We built the back office infrastructure, vendor and supply chain relationships, systems, procedures, operations methods, and well-thought-out corporate structure that a manufacturing company needs to support its customers, to allow us to scale instantly the day we resume major kit sales. All this effort enables us to introduce a fleet of new kits and helps ensure Heathkit can grow, prosper, and continue to bring you great new products for a very long time."

So, what's the exciting news? A new QRP transceiver? Maybe a shortwave radio? A new 100-in-1 experimenter kit for Makers?

Uh-uh. Sorry. The "exciting" news is a tuned radio frequency (TRF) AM band (yes, I said AM band) radio kit that costs \$150 (<https://shop.heathkit.com/>

shop/product/explorer-jr-trf-am-radio-receiver-kit-black-case-gr-150-bk-16). Not only is that crazy expensive for an AM radio, it doesn't even come with a speaker. On top of that, there's no soldering. You screw all of the components to the board. I'm speechless (well, figuratively, not literally).

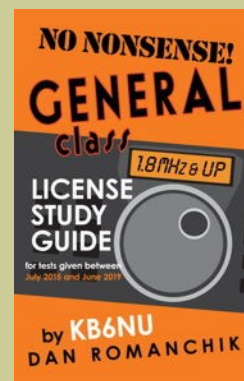
I'm not sure what the target market is for this product. It's certainly not amateur radio operators, who expect a lot more (in terms of both functionality and "fun") for their money. Nor is it the "Maker" folks, who want something more challenging than an AM radio. I think that if I took this to show off at the local Ann Arbor Maker group, they'd laugh me out of the place.

I really hope that they have something better up their sleeves. A strong Heathkit would be good for the Maker movement and for ham radio.

When he's not agonizing over what radio to buy, Dan operates CW on 30m and blogs about amateur radio at:

www.kb6nu.com

He's the author of the "No Nonsense" amateur radio license study guides and the CW Geek's Guide to Having Fun with Morse Code.



The new General Class question pool will soon take effect, and I've updated the No-Nonsense General Class License Study Guide. It is now available in PDF, Kindle, and Nook e-book formats, as well as in print. My study guides have helped thousands upgrade to General. They can help you, too. Study guides for the Tech and Extra exams are available, too

ØBeat Columnist
Dan Romanchik, KB6NU



VE Testing & Education—Colorado Springs (PPRAA)

Pikes Peak Radio Amateur Association (PPRAA)

When:
Feb, Apr, Jun, Aug, Oct, Dec
2nd Saturday at 9 AM

Location:
Colorado Technical University (CTU)
4435 North Chestnut
Colorado Springs, CO 80907

Directions available at:
ppraa.org/ve-testing
or contact:
Dennis Major
VE@PPRAA.org



Mike Anderson, WV7T does personal and small group training for all license classes.

Mike also does Morse code training.

Mike can be reached at:
719-229-8610
vv7t@aol.com

VE Testing Woodland Park (MARC)

MOUNTAIN AMATEUR RADIO CLUB (MARC)

When:
Jan, Mar, May, Jul, Sep, Nov
1st Saturday at 10 AM

Location:
Woodland Park
Woodland Park Library-
Community Meeting RM
218 East Midland Avenue

Directions:
<http://www.nx0g.org/ve.html>
or contact
Wes Wilson (KØHBZ)
k0hbx@arrrl.net
Call (719) 687-8758



Applicants will need the following items:

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 or SOCIAL SECURITY NUMBER (now required – this includes children).
3. Your CURRENT ORIGINAL amateur radio license (if any) and a PHOTOCOPY for the VE Team to keep.
4. The CURRENT ORIGINAL CSCEs you have and a PHOTOCOPY for the VE Team to keep.
5. Cash, Check or Money Order for \$15 (standard ARRL VE Fee). Checks and money orders should be made out to ARRL. This covers all exams you wish to take at this VE session.

Teams, is to not allow same day retests on failed exams.

PPRAA – Colorado Springs testing only:

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

NOTE: PPRAA and MARC VE Team policy, as with many VE

November—Select contests

Some select contests I thought sounded interesting. To find out more on each selected contest as well as other contests around the world browse to <http://www.hornucopia.com/contestcal/>. I might have to fire up the FTDX560 for the Homebrew and Oldtime Equipment Party!

10-10 Int Fall digital	Nov 14-15
Kentucky QSO party	Nov 14-15
CQ-WE	Nov 14-16
Homebrew/Oldtime Party	Nov 15
Run for the Bacon QRP	Nov 16
NAQCC CW Sprint	Nov 19
ARRL Sweepstakes –SSB	Nov 21-23
ARRL EME	Nov 28-29

Winter Field Day

The winter field day runs for 24 hours during the last full weekend in January each year from 1700 UTC (10:00 AM MST) Saturday to 1700 UTC (10:00 AM MST) Sunday. For 2016, the dates are January 30 and 31, 2016. Station set up may begin no earlier than 1300 UTC (6:00 AM MST) on January 30, 2016.

The following was from <http://winterfieldday.com/>

“Winter Field Day Association (WFDA) is a dedicated group of Amateur Radio Operators who believe that emergency communications in a winter environment is just as important as the preparations and practice that is done

each summer but with some additional unique operational concerns.

We believe as do those entities of ARRL Organizations like ARES & RACES that maintaining your operational skills should not be limited to fair weather scenarios. The addition of a Winter Field Day will enhance those already important skills of those that who generously volunteer their time and equipment to these organizations. This is why WFDA is open to all licensed amateur radio operators worldwide.

Disasters are unpredictable by nature and can strike when you least expect them. WFDA's goal is to help enhance your skills and ready you for all environmental

conditions found in the US and Canada during the spring, summer, fall, and winter.

Preparedness is the key to a professional and timely response during any event and this is what local and state authorities are expecting when they reach out to the emergency service groups that offer their services.

If you are serious about emergency communications as we are; we welcome you to join us for our yearly event. We are sure that you will find this event a pleasant change and challenge to that of a normal summer time field day.”

Try it, it might be fun!

National Parks on the Air (NPOTA)

Did you participate in the ARRL Centennial QSO Party throughout 2014? Chase pileups during the various Red Badges on the Air days? Do you recall the fun and excitement generated during that operating event?

ARRL has taken a page from that playbook and created a similarly enjoyable operating event that will occur throughout 2016, this time in conjunction with the National Park Service's 100th anniversary:

National Parks on the Air (NPOTA).

From January 1 until December 31, 2016 amateur radio operators will be encouraged to both visit National Park Service (NPS) sites and operate on the air, or get on the air from home and chase hams operating from NPS sites. This event has been coordinated with National Park Service leadership.

There are 13 sites in Colorado,

13 in Utah, 15 in New Mexico (including one just announced today by the Department of the Interior and the Department of Energy: the Manhattan Project National Historical Park), and 7 in Wyoming.

More information can be found at:

<http://www.arrl.org/NPOTA>

**PIKES PEAK RADIO
AMATEUR
ASSOCIATION**

Send membership application to:

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

General Questions:
ppraa@ppraa.org

ØBeat:
zerobeat@ppraa.org



ppraa.org

Get Radio Active, get on the air!

Membership Application:

Date: ____ / ____ / ____ New Membership: Yes / No

Name: _____

Address: _____

City/State/Zip: _____

Call: _____ Class: ____ Phone # (____) _____

Email: _____

Are you a ARRL member: Yes / No

Additional Family Members:

Name1: _____ Call: _____ Class: ____ ARRL Member: Yes / No

Name2: _____ Call: _____ Class: ____ ARRL Member: Yes / No

Name3: _____ Call: _____ Class: ____ ARRL Member: Yes / No

____ \$15.00 Full Member

____ \$10.00 Full Member over 65

____ \$18.00 Family Membership

____ \$12.00 Family Membership over 65

\$____ Membership Amount

\$____ Scholarship Fund Donation

\$____ PPRAA General Fund Donation

\$____ Total

2015 Scholarship Fund

This last year the donations to PPRAA Scholarship Fund have been slipping.

The scholarship is for a hard science or math related field of study. Those fields of study are, or are similar to, Physics, Chemistry, Math, Electrical Engineering, Bio Engineering, etc.

There are many ways to make your tax deductible donation to this fund. Contributions may be made via:

⇒ [PPRAA website \(http://ppraa.org\)](http://ppraa.org)

⇒ Part of your membership renewal,

⇒ Club meetings and event.

⇒ Directly to the fund at:
FAR Scholarship Committee
P.O. Box 911
Columbia, MD 21044

**Make checks to:
PPRAA Scholarship**

Ø- Beat Banner

Photo by Dan—WØRO.

This photograph was taken in November.

The theme of the banner is Pikes Peak Region. If you would like to submit pictures for the Ø-Beat banner, please send them to: zerobeat@ppraa.org

Please Include "[Ø-beat]" as part of the subject line.