



Activities/Meetings

- HAM breakfast will be at:
New Day Café, 5901
Delmonico Dr. Saturday,
2 July 2016
Join us anytime between
8:00-9:30 AM
All are warmly invited
- PPRAA Board Meeting
Monday, 6 June 2016
- PPRAA Club Meeting,
Wednesday, 8 June 2016
IHOP
5749 Stetson Hills Blvd
- 10 Meter/2 Meter net
Every Thursday 7:00 pm
28.390 MHz—USB
144.200 MHz-USB
- Megafest July 9th
Lewis Palmer HS
Monument, CO

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Volume 66 Issue 06

June 2016

Field Day 1933 and today

PPRAA and the first Field Day 1933.

The first Field Day was June 1933, 83 years ago and we (PPRAA) were one of the 50 stations submitting logs. Our operation was from Pikes Peak and operated using the wheel of the car to run the generator for power. Unfortunately, the "storage batteries" died and only 4 contacts were logged.

Jump ahead to 2016 and Field day 83, PPRAAback? will be operating from the PPRAA club station located at:

Ellicott Fire Station
75 N Ellicott Hwy, Calhan, CO

Talk In: 146.580 146.460 simplex. We will also monitor repeater 146.970-

Mike, WV7T is looking for more station captains. A station is simply someone that will make sure the station is ready for operation. Basically, make sure the station has logs, pencils/pens, lights, a sign-up sheet...etc. If you are interested in helping this operation, contact Mike (WV7T at aol.com)

For more about the PPRAA field day operation and a map, please visit:

<http://ppraa.org/field-day>

Jack Ciaccia-ARRL CO Section manager

Jack, WMØG will be the speaker at our June 8th PPRAA meeting.

Jack's interest in ham radio was sparked while earning the Boy Scout Radio merit badge when working towards his Eagle rank in Boy Scouts. Jack was originally licensed 57 years ago in 1958 as a Novice, KN1IVY, while living in Providence, RI. When he upgraded to General Class the "N" was dropped from the call to become K1IVY.

Jack is a Vietnam Veteran serving in the USAF. After leaving the Air Force, he took a 20 year hiatus from ham radio and in 1987, he re-tested in Boulder, CO and received my current WMØG Extra Class call.



Megafest Grand Prize—Yaesu FT991



FT-991 ALL-BAND, MULTIMODE PORTABLE TRANSCIEVER

The New FT-991 now includes a high-resolution full color 3.5" TFT Touch panel for superior operability and visibility, incorporating a High Speed Spectrum scope with ASC (Automatic Spectrum-control) built right in.



PPRAA Officers and Board of Directors

PPRAA Board of Directors consists of four elected officers, seven board members, as well as 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	Jim Bishop	KDØKQL
Secretary	John Wishart	NGØI
Treasurer	Rich Milligan	ADØNP
Board Member	John Bloodgood	KDØSFY
Board Member	Glenn Brodt	N3ULW
Board Member	Frank Roger	KB3PDT
Board Member	Pam Scott	WØPRS
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 1 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.



Sky Warn

May 26th was ARES / SkyWarn our first really good event of the season for El Paso & Teller counties. Great to hear so many stations on the air. Lots of reports were coming in and NWS Pueblo was listening on frequency. Much of the information that was passed to Sid, K4ARM, was good info, but it appears that we are a bit out of practice. Therefore, without malice or calling out individuals, let me address some key things:

1) **DON'T SHOUT!!!** I know how easy it is to raise our voices when we get excited or there is a lot of background noise. We all have done it. Shouting just makes it even harder to understand what you are saying. Talk normally and hold your mic correctly. Talk across hand mics, talk into HTs.

2) Key, Wait, Transmit. That way we don't clip the first part of our call signs. And wait for the courtesy beep after other people transmit before keying up.

3) Don't use VOX. Seriously, forget your radio even has a VOX option.

4) Follow normal net procedures: Check in with NCS. Always wait for NCS to give you the go ahead. Check out with NCS.

5) Clear with your full legal call sign. **NOTHING** substantive is allowed to follow our call signs when clearing.

6) Exercise restraint when calling things in. Limit yourself to previously defined reportable items or the items NWS Pueblo has asked for. Normally, that means 1" sized hail (Quarter sized), though sometimes NWS will ask for 3/4" (One Cent AKA Penny sized) or any hail. Lightning is not normally reportable, unless it caused damage. Winds have to be 58 MPH to be reportable. When in doubt, check with NCS to find out what he or NWS wants.

7) This is not a storm chaser net. We will take reports from storm chasers, but our net should not be used for coordinating chases. I know that some in Texas and other states have had serious problems with this; us, not so much.

8) We not calling a horse race. If you aren't sure what that means, listen to one being called some time, but in essence it means we do not need a blow-by-blow or calls every 2 minutes. If you are calling things in a lot more than anyone else, ask yourself if you really need to be doing so.

9) Keep it short and sweet. Give the Time, Observation, ID, and/or Location (not necessarily in that order) and clear with your call sign -- that's it. Know what you are going to say ahead of time and say it. If you are keying up and giving a paragraph about what you are seeing, you are stopping others from reporting.

Example: "I'm at the corner of East street and North Ave, uhh... by the Stop & Go, and I'm seeing, well, it looks like one inch hail at the largest, but I haven't measured it, so that is just an estimate and umm... the sky looks awfully green." As compared to, "At the corner of East street & North Ave, one inch hail estimated."

10) Remember, **OTHERS ARE LISTENING TO US**. Anyone, including news media and kids, can and do listen in to our transmissions over scanners or the Internet. Use plain language and don't say anything you wouldn't want repeated.

All that being said, it was really **FANTASTIC** to hear all the check ins on the midday weather net and to hear all the different call signs during the weather activity this afternoon. Pretty sure K4ARM went through a couple of pencils today. **YOUR** participation is what makes ARES so valuable to our served agencies and communities.

John Bloodgood, KD0SFY
Emergency Coordinator & Public Information
Officer
Region 2 District 2, Colorado ARES (Pikes Peak
ARES)
www.facebook.com/PikesPeakARES
Twitter @PikesPeakARES



PPRAA Board Meeting Minutes—9 May 2016

Present: Mr. & Mrs. Raleigh Holcomb, John Wishart, Mike Anderson, Jim Bishop, Virgil Yost, Jim Rader, Pam & Dan Scott, John Bloodgood, John Roth, Rich Milligan, Glenn Brodt, Doug Nielsen

The meeting was called to order by President Raleigh Holcomb at 6:30 PM at the IHOP Restaurant at Powers & Stetson Hills.

Silent Keys: None

February board meeting minutes were approved as published. Passed. Please post to Dropbox.

Treasurer's Report

Rich Milligan reported that we had \$8740.11 in our accounts as of 30 Apr 2016.

Old Business

Club Station - Raleigh reported that the tower is ready to be put up, but we need to get the concrete poured. Jim Rader will get a quote on the concrete. There are some water leaks on the trailer roof, which needs to be painted to seal the leaks. Some discussion arose regarding selling the Hazer antenna. Motion made/seconded to allow sale of the Hazer for \$100. Passed. Discussion moved on to the possible sale of a log periodic antenna. A price of \$600-700 was mentioned. We need to find out its actual condition. This item tabled until condition is determined.

Committee Reports

Club Station - Jim Bishop reported that the roof is leaking and needs some painting/roof patching.

Electrical - no report

Remote Station - not yet operational. Equipment needs to be moved out to Ellicott. The PC needs to be accessible via internet to provide access approvals.

HamCon - coming up this next weekend. Volunteers are needed to man our raffle ticket table at the event.

ARES Report

John Bloodgood reported that the Falcon 50 foot races occurred last weekend. Weather was not ideal, but event was successful. Volunteers are still needed for upcoming events (GofG 10mile, and Mountain Top Cycling Club event).

Field Day - John Bloodgood has placed our event on most of the community calendars. Public officials and TV stations are also being notified.

Club Station

Mike Anderson requested reimbursement for ink cartridges for printing award certificates. Approved. Ed has asked for some feed-through connectors on the trailer. Also need a hardback notebook to sign in on and note any work that needs to be done or has been done.

Megafest 2016

July 9th

Fund Raising

Jim Rader noted that he will have King Soopers grocery cards available at Wed. club meeting.

Around the table

Mike Anderson - if you have comments about QRZ club page, let Mike know.
John Bloodgood - EOSS launch delayed to next weekend.
Dan - hoping to have Zero Beat out this week.
Glenn - Chris had a good Weather Spotter class.
Doug - please participate in the Amazon Smiles program.

New Business

None.

Next Board meeting: Monday, June 6, 2016, 6:30PM at the IHOP at Powers & Stetson Hills.

The meeting was adjourned at 7:34 PM.

Respectfully submitted,
John Wishart NGØ1
PPRAA Secretary

PPRAA General Meeting Minutes—11 May 2016

The meeting was called to order at 7:00 PM by President Raleigh Holcomb at the IHOP Restaurant on Stetson Hills near Powers Blvd. Approximately 41 members and guests were present.

Silent Keys: None.

Treasurer's Report Rich Milligan reported that we had \$9075.41 in our bank account as of 30 April 2016.

Minutes of the previous meeting were approved as posted in the Zero Beat newsletter.

Old Business

Club Station - volunteers are needed to assist with tower installation. Timing to do the installation is dependent on the weather & wind. Concrete cost is estimated at \$490. A coat of sealing paint also will be applied to the trailer roof to seal leaks. Some skirting will also be installed on the trailer.

King Soopers Cards

These are now available for purchase for \$5. The cards already have \$5 on the card account. The card can be easily recharged with money (just like a gift card). Our club receives \$250 back for every \$5000 spent at King Soopers and Loaf & Jug using these cards. See Jim Rader to purchase.

Field Day

Mike Anderson noted several items he is looking for to equip the Field Day stations.

Megafest 2016

Raffle tickets are available for purchase.

ARES Report - John Bloodgood

Skywarn weather net has started (12:30 PM every day on 146.97 MHz). Falcon 50 Marathon was completed. PPIHC is coming up - same day as Field Day. Volunteers are still needed to sign up for upcoming events.

Program

Shel Radin KF0UR - QRP Portable Operation (w/o goats).

Upcoming Events

Next Board Meeting: 6:30PM, Monday, June 6, 2016, at IHOP Restaurant at Powers & Stetson Hills.

Next PPRAA regular meeting: 7PM, Wednesday, June 8, 2016, also at the IHOP Restaurant.

Megafest 2016: July 9, 2016, 8AM, Lewis Palmer High School, Monument, CO.

The meeting was adjourned at 9:00 PM.

Respectfully submitted,

John Wishart NGØ1
PPRAA Secretary
22 May 2016





21 FOOT
TELESCOPING
ALUMINUM MAST
LIGHT WEIGHT
AND SMOOTH
OPERATION

.WHAT IS AN INDUCTOR? - PART 2

.WHAT IS AN INDUCTOR - PART 2 the coil windings.

Inductors play a major role in electronics. Inductors vary in value with different sizes, cores and style of the windings.

An inductor wound in a coil with only air inside the coil relies on the wire windings only to create the inductance characteristics. That is, the magnetic field that cuts through the windings to produce an opposing current in the opposite direction. This only occurs when an alternating current is applied to the coil. This affect is called Inductive Reactance (XL) and it is measured in ohms like a resistor.

The Inductive Reactance, XL, changes with a change in frequency of the alternating current. The higher the frequency, the higher the XL value in ohms.

We can also increase reactance of a given size of coil by using a variety of cores that go inside

Some of the materials are metal laminates or a large variety of ferrite molded materials. The latter utilizes various metal powders set in a resin. The selection of ferrite cores is critical to the frequency applied and power used on the inductor.

The value of an inductor is measured in Henrys. A power supply using 60 Hz will require an inductor that can produce several henrys. This is your power transformer.

When you work with radio frequencies, the inductors measure milli-henrys or micro-henrys.

For example, at 100 Hz you will need a value of 1 henry to develop 700 ohms of reactance. At 1 MHz you only need 100 micro-henrys to develop the same resistance (1 micro-henry is 1 millionth of a henry).

When selecting a coil, the value will be given in henrys. From this value you can determine the reactance it will develop at the frequency you are using it at. This can be done with a reactance chart or by formula.

$$XL = 2\pi FL$$

XL=INDUCTIVE
REACTANCE (OHMS)

F = FREQUENCY

L = INDUCTANCE IN
HENRYS

Knowing the basic functions of an inductor will help knowing a little more of how your station works.

73,

Ralph WD0EJA

JUNE 2016

BILAL COMPANY

137 MANCHESTER DR.

FLORISSANT, CO. 80816
U.S.A

PH/FX: 719/687-0650

Design Advances Make Portable Operation Easier, More Fun

By Dan Romanchik, KB6NU

I've just returned from the Dayton Hamvention. Dayton was a blast as usual, and if there's one thing I took away from this year's event it's that portable operation is not only becoming more popular, but more sophisticated as well. In fact, it's a virtuous circle. More sophisticated portable equipment is making portable operation more popular, which is spurring manufacturers to make more sophisticated equipment, which is making portable operation even more popular, and around we go.

This is perhaps most easily seen in the evolution of the Elecraft products. One of their first rigs was the K1, a small rig that was frequently toted out into the field, even though it wasn't really designed for that purpose. It had a small form factor, but had a conventional front panel layout.

The next evolution was the KX1. This CW-only radio was designed specifically for field work. It originally only covered 40m and 80m, and had a very limited front panel, but its built-in battery pack and KXPD1 paddle made it a great choice for portable operators when it was introduced in 2004.

A big leap forward was made when they introduced the KX3 in 2012. This radio combined a bunch of features never before found in a portable rig. The KX3 features an SDR architecture and covers all modes, including

(SSB, CW, Data, FM, AM); used the same full-sized LCD display as the K3; has advanced DSP features; and can be connected to a computer via USB for firmware upgrades and for use with other ham radio software. The KX3 is so full-featured that many operators use it as their main rig with a suitable linear amplifier.

At Dayton 2016, Elecraft took this concept even further and introduced the KX2. It's about half the size of the KX3, but yet has almost all of the features of the KX3. There was a tremendous amount of buzz over this radio at Dayton among portable operation aficionados. The base price of the KX2 is \$750, and with options, will cost you about \$1,000.

Of course, Elecraft isn't the only company competing in this market. LNR Precision sells a radio called the LD-5, and at Dayton, they introduced the LD-11, which like the KX3 and KX2 features an SDR architecture and covers 160m - 6m. This radio goes for about \$800, and has also proven to be popular among portable operators.

Dayton also had a number of exhibitors that supplied products other than radios to aid portable operation. There were several portable antenna manufacturers, including Buddipole (buddipole.com) and PackTenna (packtenna.com), and BiEnno Power (biennopower.com) was also there, showing off their new lithium-iron batteries,

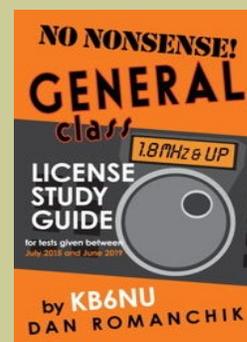
While radios like the KX2 and LD-11, at relatively low prices, allow operators to easily get out into the field, portable operation would not be as popular as it is without organized activities. Programs like the Summits on the Air (SOTA, www.sota.org.uk, na.sota.org) and the National Parks on the Air (NPOTA, npota.arrl.org) make portable operation even more fun. These programs do this by providing a structure in which operators can find one another and gain awards for operating. SOTA did not have a booth at Dayton, but NPOTA was a big part of the ARRL section there.

If you aren't already a portable operator, you should give it a try! You don't have to invest a bunch of money in a rig to just try it. KX1s have been had for less than \$400, and simpler QRP rigs cost a lot less. Getting outside and operating in the fresh air is a lot of fun and could give you a whole new perspective on amateur radio.

Dan, KB6NU, is the author of the "No Nonsense" amateur radio license study guides, and blogs about amateur radio at KB6NU.Com, and you can contact him by e-mailing:

cwgeek@kb6nu.com.

Listen for him operating his KX1 from the park or beach this summer.



Updated for the General Class question pool soon taking effect

By: Dan 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:
C21 Library
1175 Chapel Hills Dr,
Colorado Springs, CO
80920

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
wv7t@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)
k0hbz@arrl.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**



Pikes Peak Radio Amateur Association, Inc.



PPRAA HAM RADIO MEGAFEST



Saturday, July 9th, 2016



8 AM to 1 PM Lewis-Palmer High School
1300 Higby Rd., Monument, CO 80132; East of I-25, Exit 158 or 161
Vendor Setup at 6 AM — Raffle Ticket Sales Open at 7:30 AM
Talk In: 146.970 MHz (-) 100 Hz Tone



Great Raffle Prizes!

One Raffle Ticket Included with Admission
Additional Tickets: \$1 Each, 6 for \$5, 15 for \$10, 40 for \$20

Drawing at Noon, July 9th, 2016.
Raffle prize winners need not be present to win.

Yaesu FT-991 HF Base radio
with programming software from RT Systems

ICOM ID-51A DSTAR HT
donated by CMRG
with programming software from RT Systems

Icom IC2730A mobile
with programming software from RT Systems

Rig Expert AA54 antenna analyzer

MFJ 993 BRT remote antenna tuner

Alpha S9v43 fiberglass vertical antenna

Yaesu FT-60R 2meter/70cm HT
with programming software from RT Systems

Diamond X50A 2m/70cm 6' antenna

Pikes Peak Radio Amateur Association, Inc.
PO Box 16521, Colorado Springs, CO 80935
Raffle License # 2016-10609

Scheduled Activities:

- License Testing at 10 AM
- Hourly Door Prizes
- Door prize winners must be present to win

Many thanks to our sponsors:

Cheyenne Mountain Repeater Group

Ham Radio Outlet

RT Systems

Rocky Mountain Ham Radio

Contact info:

Megafest@ppraa.org
<http://ppraa.org/megafest>

6-foot Table Rental

In Advance (April 30 – July 1st): \$15
Last Minute - after July 1st: \$17
Rental Does NOT Include Admission - \$5.00 per person
One chair provided with each table

Packets will be ready at the door at 6:00 AM.
No Friday night setup available

In-Advance Table Reservation Form Postmarked and Paid By July 1st

Name _____

Address _____

City _____ St _____ ZIP _____

Phone (__) _____ Call Sign _____

Email _____

I would like AC power at my table (limited availability)

Number of Tables: _____ @ \$15/\$17 each = \$ _____

Admission Tickets: _____ @ \$5 each = \$ _____

Total Enclosed: \$ _____

Check box for registration confirmation via email

Make checks payable to PPRAA

Mail completed form and payment to:

PPRAA, PO Box 16521, Colorado Springs, CO 80935

Or signup online at <http://ppraa.org/megafest> and pay with PayPal

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**PIKES PEAK RADIO
AMATEUR
ASSOCIATION**

Send membership application to:

Pikes Peak Radio Amateur PO
Box 16521
Colorado Springs, CO
80935-6521

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:

Name 1: _____ Call: _____ Class: ___ ARRL Member: Yes / No

Name 2: _____ Call: _____ Class: ___ ARRL Member: Yes / No

Name 3: _____ 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

This photograph of Pikes Peak from Fountain, CO was taken by Pam W0PRS, May 1st 2016.

The theme of the banner is Pikes Peak Region which include PPRAA activities.

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.