PPRAA Club Officers

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Vice President	**Mike Anderson, WV7T**
Secretary	**Curtis Cookson, KE0KNG**
Treasurer	**James Madsen, K3ILC**
Ø-Beat Editor	**Jerre Redding, WA0BCM**
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Board	**Frank Rogers, KB3PDT**
Board	**Jim Rader, KD0NQM***
Board	**Jim Bishop, KD0KQL***
Board	**Virgil Yost, N0XRS***
Board	**Ray U, AA0L**

* In final year of 2-year term
All officers can be contacted at: boardmembers@ppraa.org

Club Historian Needed
If you can help with this position, contact a board member or club officer.

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

New Day Café, 5901 Delmonico Dr., 719-266-0555

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

December PPRAA Club Meeting

The Dec. 13th 7PM club meeting will be at the

IHop on Stetson Hills Blvd (just west of Powers Blvd).

5749 Stetson Hills Blvd.

FT-8: I'm not really feeling the magic

By Dan Romanchik, KB6NU

Partly out of curiosity and partly because Jeff, KE9V, shamed me into it, I setup my Signalink interface, downloaded WSJT-X from https://physics.princeton.edu/pulsar/k1jt/wsjtx.html, and started operating FT-8, the latest "shiny object" (as the ARRL dubbed it) from the K1JT team. As you probably know, this mode has really caught on with the digital crowd, and the waterfall is chock full of FT-8 signals. Part of the reason for this is that it has some of the characteristics of JT-65, but is not as excruciatingly slow.
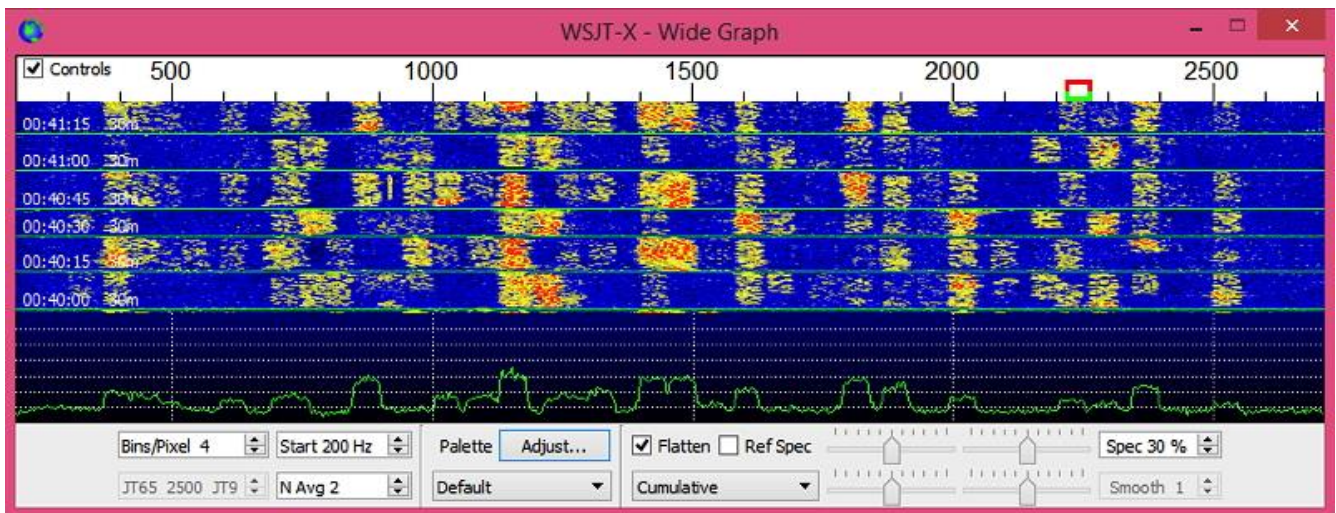
A waterfall display generated by WSJT-X at 7:30 pm, 11/23/17.

Over the past couple of days, I've made 32 QSOs, including a couple of DX contacts. It's been fun to try something new, but to be honest, I'm not really feeling the magic.

Part of it is that I don't feel like I'm really doing anything. I downloaded the software, plugged in my digital interface, fooled around with the settings a bit, and then, the computer started making contacts. I have to click a few on-screen controls to make contacts, but even that's a step that could be easily programmed in by the WSJT-X developers. (In fact, I wonder why they haven't done that already!)
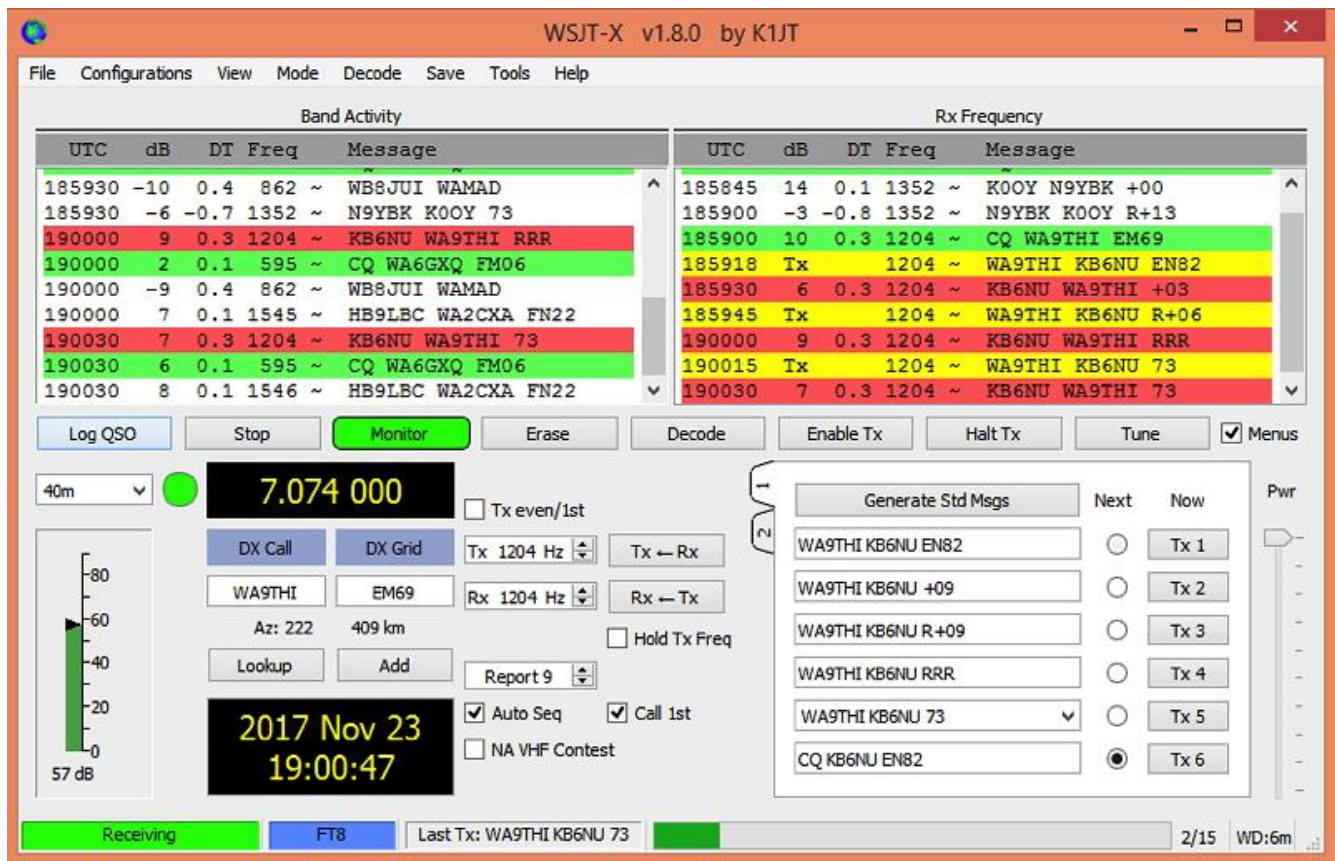
WSJT-X screenshot. The sequence of transmissions in the Rx Frequency window comprises a contact.

Take a look at the screenshot above to see how a typical contact happens. When a CQ appears in the "Band Activity" window, you double click on it. When you do this, the software begins listening for signals on that frequency. In this case, I

double-clicked on the CQ by WA9THI. When I double-clicked on the CQ, the program began decoding signals on that frequency and display the transmissions in the "Rx Frequency" window.

Then, I clicked on "Enable TX" and the program began the contact sequence, sending "WA9THI KB6NU EN82." EN82 is my grid designator. This is shown as the first yellow line in the Rx Frequency window. The transmissions that I sent are highlighted in yellow. The transmissions sent by WA9THI are highlighted in red.

The sequence of transmissions shown there comprise a complete contact, and that whole process takes less than two minutes. And, once WA9THI received my first transmission, the sequence is all automatic. You just sit there and watch the two computers talk to one another.

While I can certainly appreciate the thought and the work that went into the design of the protocol and programming to implement it, sitting and watching the computers talk to one another just doesn't excite me. On the other hand, if you're one of those guys who wants to make contacts, but doesn't really want to talk to anyone, than this is the mode for you!

Here are a few more notes about FT-8 operation:

- Not surprisingly, synchronizing your computer with the other stations computer is very important. To do that, you need to get your computer to use the network time protocol (NTP). I failed to do this when I first installed WSJT-X, and while my waterfall was full of FT-8 signals, WSJT-X just wouldn't decode them.

- I got my PC laptop to talk ntp by installing Meinberg NTP software (http://www.ntp.org/ntpfaq/NTP-s-def.htm). Once I did that, WSJT-X magically started decoding transmissions.

- Most of the cool guys seem to be using Meinberg NTP, but there are other options. One of the guys in our club is using a program called Dimension 4, for example.

- Apparently, you don't have to limit your power output as you would with PSK-31. At first, I set my output power to 10 W. I had a bit of success at 10 W, but I expected more. When I asked on Twitter how much power other guys were using, most of them said that they were using more than that.

- For the last couple of sessions, I've been setting my output power to 25 W, and I've been having more success. I've now worked several Europeans on 30m.

- Even at 25 W, my signal reports are more often than not not as good as the signal reports I'm handing out. I haven't figured this one out yet. This doesn't happen to me when I'm operating CW, so I don't think it's my antenna.

- When I'm operating, I write down the calls of stations I've contacted. The reason for this is that while WSJT-X does have a logging function, it doesn't have a log window, so unless you have a great memory, you could end up working guys two or three times a session. That's probably not a big deal since contacts are so quick, but I'd rather avoid doing that if I can.

- WSJT-X works "split." While most contacts take place on the same frequency, a station can call you anywhere in the passband of your receiver and WSJT-X will decoded the signal and begin a contact. This threw me the first time or two that this happened, and I tried

to change my transmit frequency to match the other station's. In doing so, I messed up the sequence. I now just let the contact proceed normally, and it works out great.

- When I work the other digital modes, I set my IC-746PRO to the USB-D mode. In this mode, the receive passband is narrower than for working phone. When operating FT-8, however, you don't want to limit that passband. Signals will appear across the entire 2.6 kHz of the USB signal, and if you narrow the passband, you won't be able to work those stations.

- WSJT-X checks the validity of call signs. This afternoon, there was a guy who had typed in his call as "WAMAD" and was calling CQ. WSJT-X wouldn't let me answer that CQ.

- Operating this mode opens up the possibility of working more stations whose callsigns spell words and adding those QSL cards to my collection. I have, for example, already worked K1GUY, N4HER, and N5SLY. I'm guessing that these guys don't operate CW.

> All told, I've found this to be an interesting foray into a new digital mode. While I'm not feeling the magic that some others seem to be feeling when operating FT-8, it certainly will be a change of pace to operate this mode from time to time. Give it a shot and tell me what you think.

> ---

> Dan, KB6NU, is the author of the "No Nonsense" amateur radio license study guides and blogs about amateur radio at KB6NU.Com. When he's not working FT-8, he teaches ham radio classes and operates CW on the HF bands. You can email him at cwgeek@kb6nu.com.

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/

You shop. **Amazon gives.**

- Amazon will donate 0.5% of the price of your eligible AmazonSmile purchases to **Pikes Peak R adio Amateur As s ociation** whenever you shop on AmazonSmile. You can select a different charitable organization after signing in.

- AmazonSmile is the same Amazon you know. Same products, same prices, same service. Support your charitable organization by starting your shopping at **smile.amazon.com**

https://smile.amazon.com/ch/84-1476913

How to create a Ø (slashed zero) using a Windows keyboard:

The "Ø" character (slashed zero) is commonly used in amateur radio, to distinguish the number "0" from the letter "O". "Ø" is customarily used in amateur-radio call signs and written communications. Using a Windows PC, the " Ø " is easy to create; press and hold the "ALT" key, type in "0216", and release the "ALT" key. The "Ø" will appear. This character cannot be used in URL addresses, and don't even think about substituting this for a zero in an email address -- it won't work. This and all other characters available in all installed fonts on the PC may also be copied and pasted into documents using "Character Map", an application supplied with the Windows operating system. "Character Map" refers to the "Ø" as a "Latin Capital letter O with stroke".

73

Jim Madsen K3ILC

From: isotronantennas
Sent: Saturday, December 2, 8:00 AM
Subject: THE RESONANT POINT DEC 2017
To: TO OUR VALUED CUSTOMERS

ISOTRON 160/80
WE MADE IT EASY FOR YOU!
www.isotronantennas.com

THE BEST WAY TO OPERATE HF

EASY INSTALLATION
EXCELLENT PERFORMANCE
DURABLE CONSTRUCTION
CC&R FRIENDLY (XYL ALSO)
PLEASE FORWARD THIS ARTICLE TO THOSE YOU FEEL WOULD BE INTERESTED.
THE ARTICLES WILL ALSO BE ON OUR WEB SITE.

THE DISCONE ANTENNA

Have you heard of it? It has been used for a long time.

There are many variations in shape to this type of antenna. The basic design is a cone with the little end up. Hovering above the point of the cone is a round disc. Some are two cones point to point. Some are two flat triangles point to point. However, the one that seems to be the most practical is the cone and disc style.

What is the advantage?

VERY broad banded and a low angle of radiation.

For example, a Discone built for 144 Mhzs will cover all frequencies up to 450 Mhzs and stay within a 2:1 SWR. It may go much wider than that.

For VHF and higher, it is relatively easy to make. For the HF spectrum, it becomes extremely large. There are some built for HF. About 157 feet tall and a bottom diameter the same. The disc is 110 feet. What you get is a band width from 1.8 Mhz to 30 Mhzs and stay within a 2:1 SWR. No tuner used.

The discone is vertically polarized with a similar gain of a vertical one half wave dipole.

For VHF and UHF it is ideal for a base station and/or a scanner receiver.

THE CONE. It is like an up side down funnel. The angle is 60 degrees. At 60 degrees the length of the side of the cone is the same as the diameter. The cone diameter is:

 CONE DIAMETER (METERS) = 86 / MINIMUM FREQ IN MHZ

It can be made from a light sheet aluminum such as roof flashing, wire mesh or even a series of rods like radial wires.

An SO-239 connector mounts in the point of the cone. Therefore, the point of the cone should come to 5/8 inch.

THE DISC. The diameter of the disc is:

 DISK DIAMETER (METERS) = 60.2 / MINIMUM FREQ IN MHZ

DISC TO CONE SPACING (METERS).

 0.3 X CONE TIP INNER DIAMETER

The structure of this antenna is quite forgiving since the band width is so large. Also you can vary the shape of the cone to fit what you can build.

This design is ideal for a base station or an emergency set up. Give it a try. It is a great project with satisfying results.

73,
Ralph WD0EJA
DEC 2017

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

FCC Opens 640 and 2200 Meter bands. Stations Must notify UTC before operating.

09/15/2017

The FCC has announced that the Office of Management and Budget has approved, for 3 years, the information-collection requirement of the Commission's March 29 *Report and Order* (*R&O*) that spelled out Amateur Radio service rules for the two new bands — 630 meters and 2200 meters. Notice of the action appears in today's edition of the *Federal Register*. Before using either band, stations must notify **the Utilities Technology Council (UTC), formerly the Utilities Telecom Council, that they plan to do so, and if UTC does not respond within 30 days, they may commence operation.**
Last March 27, the FCC adopted the 2012 World Radiocommunication Conference (WRC-12) implementation Report and Order (ET Docket 15-99), amending its Amateur Radio rules to
— in the FCC's words — "provide for frequency-sharing requirements in the 135.7-137.8 kHz (2200-meter) and 472-479 kHz
(630-meter) bands."
Section 97.313(g)(2) of those rules requires that, prior to starting operation in either band, radio amateurs must notify UTC that they intend operate by submitting their call signs, intended band(s) of operation, and the coordinates of their antenna's

fixed location. The new rules do not permit any mobile operation.

"Amateur stations will be permitted to commence operations after a 30-day period,unless UTC notifies the station that its fixed location is located within 1 kilometer of Power Line Carrier (PLC) systems operating on the same or overlapping frequencies," the FCC said. PLC systems are unlicensed. "This notification process will ensure that amateur stations seeking to operate [on 630 or 2200 meters] are located beyond a minimum separation distance from PLC transmission lines, which will help ensure the compatibility and coexistence of amateur and PLC operations, and promote shared use of the bands."

The FCC announced that it is making effective immediately the Part

97 rule amendments, § 97.3, 97.15(c), 97.301(b) through (d), 97.303(g), 97.305(c), and 97.313(k) and (l), which do not require OMB approval

Click HERE to access the UTC notification website.

FOUNDATION FOR AMATEUR RADIO

Scholarship Information & Application

FAR Overview

Contact FAR

Scholarship Information & Application The Foundation for Amateur Radio, Inc. will be awarding a total of 57 scholarships, worth an aggregate of $94,575 for the 2017/2018 academic year. Those scholarships range in value from $500 to $5,000 each.

Note that the QCWA and Chichester scholarships have a requirement that you obtain a recommendation from the QCWA or an ARRL affiliated club, respectively. When you apply, you are applying for all of the scholarships for which you qualify. Getting the recommendations qualifies you for an additional $38,000 in scholarships! A complete description of the 2017 scholarships that were awarded may be found at: •

2017 Far Scholarship List

Garden of the Gods Amateur Radio Club

Garden of the Gods ARC meeting

First Monday of each month at Fargos Pizza at 11:00 AM. All are welcome.

ARRL Incoming QSL Bureaus
**www.arrl.org/incoming-qsl-service**

ARRL Outgoing QSL Bureaus
www.arrl.org/outgoing-qsl-service

ARRL Affiliated Clubs-Outgoing QSL cards

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.

CAUTION
Ham Radio
On
Board!
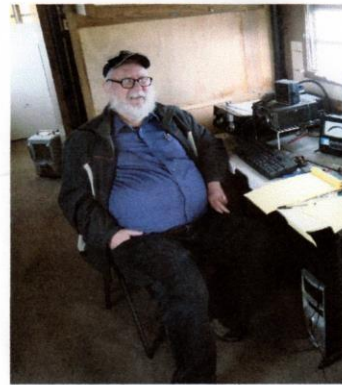
FREE

Ham Radio License Classes and Tutoring Technician, General, Extra, Morse Code, Hands-on Skills.

Mike Anderson, WV7T

PPRAA Senior License Instructor

wv7t@aol.com   229-8610

Raleigh Holcomb, N4HYF

ARRL Registered Instructor

Free Exams!

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 W0CDS 2M repeater as well. Considering our K0PRA repeater is being relocated, using the W0CDS 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 W0CFI 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
@ParkerCORad io

From the annals of PPRAA history

December 1980:

A good article describing the history of Ten-Ten, and the local Pikes Peak chapter, which operates a net on 28845 kHz at 1600Z on Sunday. Dave NØDV is the net control station. At the November meeting it was voted to raise the club dues to $12 for full, $15 for family, and $8 for associate members. Article on public service invites all hams to join with MARS to get practice handling traffic. On December 2, code and theory classes will begin at North Junior High School.

Jim,

I had an epiphany, and managed to get two CDM1250's interfaced to my controller. It's on the air, an seems to not be horrible.

146.85 (-) PL156.7
 Just a CW ID for now. I need some folks to try it out, and tell me if anything needs changed. Feel free to give out my email, if you choose to distribute this via the club mailing list. I would also welcome reports of coverage.

The CW ID is purposefully set to under-deviate(I hate loud IDer's), and the time out is set at 3 minutes.

Tell everyone that I'd like them to use the hell out of it.

73,
Doug

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 k0hbz@arrl.net or call (719) 687-8758.

If attending, please BE SURE to bring the following items to 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.

4. The ORIGINAL of any relevant 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 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

PPRAA VE EXAMS

(MONTHLY)

PPRAA VE session will be held at 10:15 am on the second Saturday of the month at Pikes Peak Library District - Library 21c, 1175 Chapel Hills Dr, Colorado Springs, CO 80920, United States. The exception is the Megafest month where testing will be at Megafest and will be at 10:00 AM

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.

   Dennis Major N0ABC, PPRAA VE Contact, 719-213-1109

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.

PPRAA VE Session

Monthly on the second Saturday

Pikes Peak Library District - Library 21c, 1175 Chapel Hills Dr, Colorado Springs, CO 80920, United States

Where	
	[map](#)
Calendar	PPRAA
Created by	n7lem.0@gmail.com
Description	Testing will take place in the Ent Conference Center.

HAMSTUDY

Study for your Amateur Radio License exam:

Technician (2014-2018)

General **(2015-2019)**

Amateur Extra (2016-2020)

Other...

HamExam.org Amateur Radio Practice Exams

Welcome, guest.

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**.

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   [_] Family Membership (same address) - $18.00
[_] Full Member over 65 - $10.00   [_] Family Membership (both over 65) - $12.00
[_] Free - VE Signature Required: