



**VOLUME 71**  
**ISSUE 5**  
**May 2020**

## **PPRAA Club Officers**

<b>President</b>	<b><u><a href="#">Don DuBon, N6JRL+</a></u></b>
<b>Vice President</b>	<b><u><a href="#">Tom Oliphant, K0BUL+</a></u></b>
<b>Secretary</b>	<b><u><a href="#">Jay Winterton, W0WJ+</a></u></b>
<b>Treasurer</b>	<b><u><a href="#">Dick Kohlhaas, W5UDM+</a></u></b>
<b>Ø-Beat Editor</b>	<b><u><a href="#">Jerre Redding, WAØBCM</a></u></b>
<b>Webmaster</b>	<b><u><a href="#">Douglas Nielsen, N7LEM</a></u></b>
<b>Past President</b>	<b><u><a href="#">Jim Bishop, KD0KQL</a></u></b>
<b>Board</b>	<b><u><a href="#">John Bloodgood, KDØSFY*</a></u></b>
<b>Board</b>	<b><u><a href="#">R, Lee Glazer KE0YSE</a></u></b>
<b>Board</b>	<b><u><a href="#">Dennis Major, N0ABC</a></u></b>
<b>Board</b>	<b><u><a href="#">Logan Perry, KE0KZA</a></u></b>
<b>Board</b>	<b><u><a href="#">Anthony Mitchell, KE0LQK</a></u></b>
<b>Board</b>	<b><u><a href="#">Mike McLaughlin, K0JT*</a></u></b>
<b>Board</b>	<b><u><a href="#">Michael Walter KE0TWK</a></u></b>
<b>Board</b>	<b><u><a href="#">Mike Anderson, WV7T*</a></u></b>

\* In final year of 2-year term

+ One year officer position

**All officers can be contacted at: [boardmembers@ppraa.org](mailto:boardmembers@ppraa.org)**

## Monthly Ham Breakfast

**PRAA Tentative pending restaurant reopening.  
La Tartine  
1420 Kelly Johnson Blvd  
Saturday, June 6, 2020**



### April 2020 Board Meeting Minutes

4/6/2020

CTO @ 6:30 PM by K0BUL (Tom)

In Attendance:

N6JRL (Don Dubon), K0BUL (Tom Oliphant), W0WJ (Jay Winterton), W5UDM (Dick Kohlhaas), WA0BCM (Jerre Redding), N7LEM (Doug Nielsen), KD0KQL (Jim Bishop), KE0YSE (Lee Grazier), N0ABC (Dennis Major), KE0LQK (Anthony Mitchell), KD0SFY (John Bloodgood), WV7T (Mike Anderson), K0JT (Mike McLaughlin), KE0TWK (Michael Walter), K3ILC (Jim Madsen)

Old Business:

- ☛ SK's: None
- ☛ N6JRL, Don - Read letter we sent to Juliet Brooks, acknowledging donation of equipment and what was sold.

- ☛ Treasurers report by W5UDM, Dick
  - ARRL Scholarship information, \$1,000 each year
    - ☛ Name (PPRAA Memorial Scholarship Fund), where it goes to (a ham, college student from Colorado or attending school in Colorado), applicant must pursue studies in STEM at in a 4-year bachelors program.
- ☛ N6JRL, Don mentioned that we need to have special board meetings for time sensitive issues. He proposes a special board meeting or even a smaller committee to meet just on the bylaws.
- ☛ N0ABC, Dennis - Discussion regarding the bylaws. He suggests a committee of 4. WV7T, N7LEM, N0ABC, W5UDM, KD0KQL all volunteered.
- ☛ PPRAA already has a vanity callsign. We cannot have another. AF0S to W0MCT discussion for the club. QCWA could be the group that uses W0MCT.
- ☛ ZeroBeat Report by WA0BCM, Jerre
- ☛ WV7T, Mike - He made 2 selections of asset tags.
  - We need a board member to step up as the activities coordinator. We don't have anybody for field day yet. We need a single person to take care of all of this. We could also use a myriad of other people to assist with other events (picnic coordinator, Christmas party, etc).
  - Will the club support the QCWA with a banner?
- ☛ Webmaster report, N7LEM, Doug
- ☛ Secretary's Report - W0WJ, Jay
- ☛ PPARES Report by KD0SFY, John
  - SKYWARN training program for ham radio operators, 4/25. Information is forthcoming.
  - Gearing up for future events. Garden of the Gods 10 mile is coming up.
    - Anthony and John got together to discuss getting information out to local elected officials. Also starting to work on declarations. As field day gets closer to us they'll be doing press releases and other PR efforts.
- ☛ N6JRL, Don - We should all have something written up and in a binder to hand off. Take some time to outline what we do and who our contacts are.
- ☛ Megafest - KD0NQM, Jim - July 11<sup>th</sup> Lewis Palmer HS. Setup on Friday at 7:30 PM. Dinner first then set up at gymnasium. List of raffle prizes is available. The budget was \$3300, spent \$2750.
  - Total prize package is about \$3800. More prizes to be added to the pot.
    - He has had contact with a company that prints raffle tickets. Hopefully he'll have the price on the raffle ticket order.
    - N6JRL will be out of town. His wife will be out of town as well.
      - They need lots of help on Friday night to set up. They also need help on Saturday.
      - N7LEM, Doug mentioned that we'll need \$25 for a table at LARCFest. W0WJ, Jay motioned that we pay for this table. 2<sup>nd</sup> by KD0NQM, Jim. All in favor.
- ☛ Internet Committee - No update.
- ☛ K0BUL, Tom
  - Wednesday we will have Don Frasier from PPFMA. They will give us some history and information on their repeaters, clubs, etc. Ask him questions as you'd like.

- o Thursday evening nets were all held.
- o Door prizes aren't paying for door prizes. K0BUL motioned for an injunction of \$150 be taken out of the treasury and put towards door prizes. 2<sup>nd</sup> by KD0NQM. All in favor.
- ☛ WV7T motioned that up to \$300 be spent on QCWA banners. 2<sup>nd</sup> by KD0KQL. All in favor.
- ☛ WV7T motioned that up to \$300 be spent on the barcode style asset labels. 2<sup>nd</sup> by K0BUL. All in favor.
- ☛ KD0KQL, Jim - Radio gear donated and to be sold to the club and then at Megafest.
  - o Lonnie has been a ham for quite a long time. One of his friends put up a mast and a G5RV. It has blown over. Jim, Mike and Lonnie will go out and put it back up for him.
    - o More hacked emails from Jim. Don't open them.
- ☛ Steve - Suggests ZeroBeat spotlight on a club member.
  - o He's willing to help out on field day, but not take charge on setup of antennas. He'd like to do this earlier rather than later. We'll make a plea at the club meeting for help.
- ☛ K3ILC, Jim - he found a tax-exempt status barcode for Home Depot.
- ☛ Upcoming events - KD0SFY, John
  - o World Amateur Radio Day, 4/18

#### New Business:

- ☛ SK's: KA0PIL, W8ILC
- ☛ Treasurers report by W5UDM, Dick
  - o We will postpone donation of money from the raffle program to a scholarship for next year.
- ☛ N0ABC, Dennis - VEC Future Testing - Testing is up in the air because of the pandemic. May testing is cancelled. Future testing is also likely cancelled.
- ☛ ZeroBeat Report by WA0BCM, Jerre - Current ZeroBeat is not available yet but will be soon.
- ☛ Webmaster report, N7LEM, Doug - a lot of cancellations posted on the website. No ZeroBeat yet.
- ☛ Secretary's Report - KD0VRB, Jay
- ☛ PPARES Report by KD0SFY, John - Skipped ☛ Megafest Follow-up - KD0NQM, Jim - Not present.
- ☛ Internet Committee - N7LEM, Doug - Nothing to report.
- ☛ 2020 Christmas Party - N6JRL, Don - Skipped

## ☛ APRIL MEMBERSHIP MEETING IS CANCELLED DUE TO COVID-19 CONCERNS

- ☛ Thurs. 10 m net - we're all invited to participate. We had 6 participants on Thurs. Previously there were 8. 2 m net we had 22 participants this last week.
- ☛ QCWA Chapter 58, KD0KQL, Jim - Everything is going well, they are just trying to get things rolling again but have been unable to with the club membership meetings not being held. Last time they were talking about it they were discussing fees. WV7T, Mike is the primary contact for this.

- ☛ K3ILC, Jim - Suggested that we send out a notice through the reflector regarding the April Club Membership Meeting being cancelled due to COVID-19 concerns.
- ☛ KD0SFY, John - He was looking into a YouTube meeting for club members to be held at some time in the future.
- ☛ W5UDM, Dick - He has a list of current club members that can be used to notify all club members of the cancellation of Wednesday's club meeting.

Motion to Adjourn @ 7:08 PM by N7LEM, Doug  
Second by N0ABC, Dennis  
All in Favor.



**The top Tuning section for the ISOTRON 160C and AM Broadcast.**

This article will also appear on our web site.

## **HOW DOES COAX WORK?**

Coax cable is for the purpose of transferring RF energy from the transmitter to the antenna.

Many are familiar with Ladder Line. 2 wires in parallel from the transmitter to the antenna. If the 2 wires are spaced very carefully with little variation, one side will be of a positive value (voltage or current) and the other will have a negative value

exactly equal. The two RF fields cancel each other. This does not take away the RF energy, but keeps it from radiating into the atmosphere and follow the wires. In affect it makes a very high resistance to the atmosphere and a low resistance along the Ladder Line.

The draw back with Ladder line is it is affected by nearby objects. Something close to the Ladder Line will unbalance it. Therefore coax was developed to reduce that problem.

Coax is doing the same thing as Ladder Line electrically. The center conductor has one polarity while the shield has the opposite. The same principal of cancellation is taking place. The shield is not really a shield in that RF is contained inside of it. There is just as much RF energy on the shield as the center conductor.

Due to the physical shape of the coax, the shield can be kept at a zero voltage in respect to your grounding. So if you had an RF volt meter you would in theory measure 0 voltage from the shield to your grounded installation such as radio chassis, tower or mast, walls of your home and so on. Now a nearby object has little affect on the balance of the coax.

At times this balance can be disrupted slightly. The result is RF feedback, interference to other electronic equipment, common mode currents or voltages, higher than normal SWR readings and more.

The problems with coax is not severe. Most of these problems can be corrected relatively easily. We will offer more information in the future on this.

73,  
Ralph WD0EJA  
April 2020

## **Bilal Company**

137 Manchester Dr.  
Florissant, Co. 80816 U.S.A  
PH/FX: 719/687-0650

[wd0eja@isotronantennas.com](mailto:wd0eja@isotronantennas.com)

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## A modest proposal (for the next Extra Class question pool)

By Dan Romanchik, KB6NU

At our last club meeting, I was discussing the changes to the Extra Class question pool with someone, and the topic of memorizing the answers popped up. As I always do, I mentioned that many of the questions you can only get right by memorizing the answer. At that point, someone down the way piped up. "Not me," he said, "I studied the material so that I didn't have to memorize the answers."



At that point, the president called the meeting to order, so I didn't get to challenge him on that point, but that statement is just plain wrong. First of all, it's true that some questions you can only get right by memorizing the answer. Almost all of the rules questions are that way, for example.

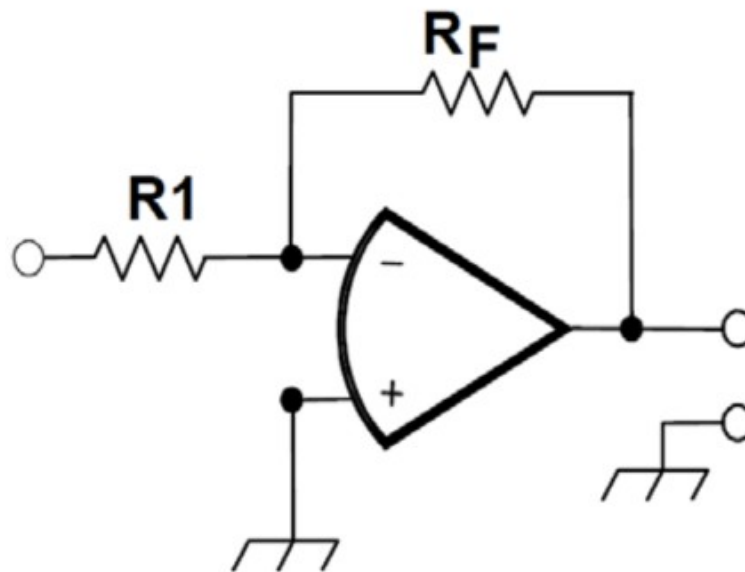
Secondly, there is no way to study the rest of the material in any depth and still have time to actually be an amateur radio operator. The amount of material that the Extra Class question pool covers takes an electrical engineering student four years or more to study thoroughly. And even then, some topics are bound to get short shrift.

So, we're back to memorizing. I would say that even an "engaged" person will memorize about half the answers. I'd go even further and say that those that "study" the technical topics, don't study it as thoroughly as a college student would.

For example, there are a dozen questions in Section E7G – Active filters and op-amp circuits: active audio filters; characteristics; basic circuit design; operational amplifiers. Despite the name, you don't need to know how to design or build an op-amp filter. All you really need to know is that op-amps are high gain devices and if you have a circuit like the one shown below,  $V_{out}/V_{in} = R_F/R_1$ .



Figure E7-3



These concepts are relatively easy to learn. but there are also two questions on filter “ringing.” Honestly, you’re better off just memorizing the answers to those questions unless you have a real interest in active filters that use op amps. Wading into the mathematics isn’t all that hard, but when you consider this is only one of dozens of topics, you can see where doing any kind of in-depth study is going to take you months, if not years, to accomplish.

### A modest proposal

The end result of this approach to testing is that we have many Extra Class licensees who know about a lot of things, but not in very much depth. Perhaps that’s OK. Perhaps that’s just what the question pool committee of the National Council of Volunteer Examiner Coordinators (NCVEC) was shooting for. If, however, we want an Extra Class license to denote that the licensee has some real technical expertise, I have a modest proposal.

Basically, my idea is that instead of testing on an incredibly wide range of topics, we test applicants on a set of basics, plus one or two particular topics. These would be topics that the person has expertise in already or enough of an interest in to study the topic in some depth.

Below are the topics that I would consider to be basic and some that I consider to be more specialized. This is, of course, not an extensive list.

- Basic questions (20 questions, everyone takes this part of the exam)
  - Safety
  - Rules and regulations
  - Electrical principles/basic circuits

- Technical Interests (Choose two, 20 questions each)
  - Antennas and transmission lines
  - Radio wave propagation
  - EMI/RFI
  - Analog and digital design
  - Digital communications and networking
  - Software/software-defined radio
  - Operating: contests, DXing, direction finding, etc.
  - VHF/UHF

The questions in each of the technical interest question pools would be designed to really test the knowledge of the person taking the test. We'd have to figure out a way to make them difficult enough so that one couldn't just simply memorize the answer. Questions could appear in one or more technical interest test. For example, a question on VHF/UHF propagation could appear in both the Radio Wave Propagation and VHF/UHF question pools.

Having said all this, I realize that this would not be easy to implement. You'd have to first decide on the topics and then enlist experts for each of the topics and get them to come up with a list of 80 - 100 questions each.

I realize that this has very little chance of being adopted, but it's interesting to think about, no? And, we have four years to do this, so it could be possible.

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Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (KB6NU.Com), the "No Nonsense" amateur radio license study guides (KB6NU.Com/study-guides/), and often appears on the ICQPodcast (icqpodcast.com). When he's not thinking up ways to make the lives of the NCVEC question pool committee more difficult, he likes to build stuff and operate CW on the HF bands.

## New Amateur Extra-Class Question Pool Released

The new Amateur Extra-class license examination question pool, effective from July 1, 2020, through June 30, 2024, has been released and is available at the National Conference of Volunteer Coordinators ([NCVEC](http://ncvec.org)) website.



The [2020 - 2024 Extra-class pool](#) incorporates significant changes compared to the current 2016 - 2020 question pool, which

expires on June 30. The number of questions in the pool was reduced from 712 to 622. The result was 239 modified questions, 49 new questions, and 139 questions removed due to changes in what was felt to be an abundance of outdated questions, while areas of new technology and subjects were added.

In addition, an effort was made to balance the difficulty level, removing or replacing some questions deemed too easy or too difficult compared to the rest of the pool.

The 2020 pool has 10 diagrams, which have been renumbered because the new question pool has two fewer than the 2016 question pool.

## International Space Station Resupply Mission to Carry New ARISS Ham Radio Gear



The scheduled March 7 (UTC) SpaceX CRS-20 mission to the International Space Station (ISS) will include the initial Amateur Radio on the International Space Station (ARISS) Interoperable Radio System (IORS) flight unit, which is listed as a primary payload. The IORS is the foundation of the ARISS next-generation amateur radio system on the space station. Once at the space station, the IORS will be stowed for later installation.

The ARISS hardware team built four flight units, and the first will be installed in the ISS *Columbus* module. A second flight unit expected to be launched on a later 2020 cargo flight will be installed in the Russian Service Module. NASA contracts with SpaceX to handle ISS resupply missions.

The IORS represents the first major upgrade of on-station ARISS equipment. The package will include a higher-power radio, an enhanced voice repeater, and updated digital packet radio (APRS) and slow-scan television (SSTV) capabilities for both the US and Russian space station segments. The IORS



consists of a custom-modified JVCKenwood TM-D710GA transceiver, an AMSAT-developed multi-voltage power supply, and interconnecting cables.

The ARISS hardware team remains busy on IORS development and final certification. While the initial unit has been certified for launch and stowage on ISS, the team is still deep into the final certification of the IORS for flight operations, and construction of a second flight unit is in progress.

ARISS will mark 20 years of continuous amateur radio operation on the space station in November.

## Dayton Hamvention Officials Keeping an Eye on Coronavirus Situation

### Dayton Hamvention Cancelled

#### Refund Information

Due to unfortunate cancellation of Hamvention 2020, we know that tickets, inside booth spaces and flea market spaces have been purchased. These purchases have been made by online credit cards, mail order checks and purchased from our outside vendors. All refunds will be through the same method of purchase. All credit card sales will be refunded to the original card used to make the charge. All check and cash sales will be refunded by check. We anticipate all refunds completed as soon as possible but not later than August 1.

We are offering the following options.

1. Obtain a refund.
2. Obtain a 2021 ticket instead. (to be mailed around January 1, 2021) Hamvention 2021 May 21-23
3. Donate to Hamvention (no refund)

For all general admission (not inside or flea market) online and mail orders, email [tickets@hamvention.org](mailto:tickets@hamvention.org) with your preference. Emails already received will be processed as indicated.

Inside booth holders please email [exhibits@hamvention.org](mailto:exhibits@hamvention.org) with your refund preference. If you opt for the hold until 2021 they will contact you to verify.

Flea Market staff will be contacting each flea market space holder personally concerning refund of space(s).

For those who purchased tickets at Hamcacion in Orlando, please send your ticket (keep a copy for your records) and last four of credit card for credit card refund (if purchased by card) otherwise it will be by check mailed to you.

Hamcacion Hamvention forum ticket winners, please email [tickets@hamvention.org](mailto:tickets@hamvention.org) with your ticket number and address information. We will send you replacement 2021 tickets early next year.

If you purchased a ticket at one of our outside vendors then please return to the place of business and they will handle your refund.

Mail correspondence to:

Hamvention Tickets - 2020 refunds

PO Box 1446

Dayton, OH 45401-1446

## ARRL Reshapes Podcast Offerings for 2020

In conjunction with the launch of its new [On the Air](#) magazine, which is aimed at those just beginning their journey in amateur radio, ARRL is reconfiguring its podcast lineup.

Heading up the new schedule will be a free companion podcast to the bimonthly *On the Air* magazine. The monthly *On the Air* podcast will take a deeper look into select features and projects from the magazine. Each month, host and *On the Air* Editorial Director Becky Schoenfeld, W1BXY, will offer additional resources, techniques, and hints to help less-experienced radio amateurs to get the most from the magazine's content.



In addition to the podcast, ARRL Product Development Manager Bob Inderbitzen, NQ1R, will curate a free *On the Air* blog featuring content from the communicators and makers who are the driving force of amateur radio today. The blog will highlight opportunities and activities available to new licensees. The *On the Air* blog is intended as an

entry point into the world of amateur radio for those seeking original voices and perspectives. Readers will be [invited](#) to take part in the conversation by sharing their stories and experiences.

Upcoming events in the Rocky Mountain Division: (more info @ [ARRL.org](#): click on "hamfests")

LARCFest

04/04/2020

Location: Boulder County Fairgrounds  
9595 Nelson Road  
Longmont, CO

Type: ARRL Hamfest

Sponsor: Longmont Amateur Radio Club

Website: <http://www.w0eno.org>

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# UTAH VALLEY HAMFEST & DISASTER COMMUNICATION 2020

**The hamfest is now canceled.**

We've had several people ask us to consider their registration fee as a donation, but we will also give refunds as requested. Please send refund requests to [refunds@utahvalleyhamfest.com](mailto:refunds@utahvalleyhamfest.com) by March 31.

Website: <https://utahvalleyhamfest.com>  
Sponsor: Utah Valley Amateur Radio Club  
Talk-In: 146.780- (PL 100.0)  
Public Contact: Caryn Alarcon , KG7UUR  
PO Box 1288 Orem, UT 84059  
Phone: 562-965-6079  
Email: [k7uva@arrrl.net](mailto:k7uva@arrrl.net)

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ARRL Rocky Mountain Division  
Director: Jeff Ryan, K0RM  
[k0rm@arrrl.org](mailto:k0rm@arrrl.org)

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## **Major Events**

**The VE Session on 9 May cancelled**

**PPRAA General Membership meeting (13 May)  
cancelled**





**Monthly Ham Breakfast (6 June) tentative pending restaurant re-openings (closed 17 March - 18 May)**

**Visalia DX Convention has been cancelled**

**Dayton Hamvention has been cancelled**

**PPRAA Megafest has been cancelled**

**2020 ARRL Rocky Mountain Division Convention Hamcon Colorado 2020**

- Thursday, 6 August 2020: DX University
- Friday August 7 thru Sunday August 9, 2020
- Location: Parker, CO
- More info [here.](#)

**PPRAA 75 years Special Event Station**  
**PPRAA Veterans' Day Special Event Station**  
**PPRAA Pearl Harbor Day Special Event Station**

- QSL to: PPRAA, PO Box 16521. Colorado Springs, CO 80935-6521
- No need to send a SASE, we will send cards to all confirmed contacts.

### **Unraveling the Mystery of 1 × 1 Call Signs**

The [1 × 1 Special Event Call Signs](#) system offers a way for clubs, groups, or even individuals to use a short call sign of special significance to the amateur community. These 1 × 1 call signs are [reserved](#) in advance for use in conjunction with short-term special events and commemorative operations. The FCC does not assign 1 × 1 call signs, so they are not "official."

On the matter of special event call signs, the FCC says, in Section 97.3(a)(11)(iii) of the Amateur Service rules: "The call sign is selected by the station licensee from a list of call signs shown on a common database coordinated, maintained and disseminated by the amateur station special event call sign data base coordinators. The call sign must have the single letter prefix K, N, or W, followed by a single numeral 0 through 9, followed by a single letter A through W or Y or Z (for example K1A). The special event call sign is substituted for the call sign shown on the station license grant while the station is transmitting."

The FCC also says in Section 97.119 (d): "Additionally, the station must transmit its *assigned call sign* at least once per hour during such transmissions." This requirement tends to be widely flouted, however.

A 1 × 1 Special Event Call Sign aids other radio amateurs by calling attention to the special event or other occasion. 1 × 1 call signs may be used for a variety of purposes, such as conventions, festivals, dedications, anniversaries, commemorations, and ARRL Field Day. Even local events qualify.

There are 750 1 × 1 Special Event Call Sign possibilities, and radio amateurs of any license class may reserve one as far as a year in advance to use for up to 15 days. Of course, 1 × 1 Special Event Call Signs are recycled. It's first come, first served. See the [Frequently Asked Questions](#) page for more information. The FCC has selected coordinators to approve and post 1 × 1 Special Event Call Sign reservations to a [searchable database](#). -- *Thanks to The Radiogram (Portage County Amateur Radio Society newsletter)*

*You shop. **Amazon gives.***

### **PPRAA VE Session**

Monthly on the second Saturday

Pikes Peak Regional Office of Emergency Management  
3755 Mark Dabling Blvd, Colorado Springs, CO 80907, USA

Organizer: [ve@ppraa.org](mailto:ve@ppraa.org)

### **Amateur Radio Emergency Links Info**

Amateur Radio and Emergency Communications



<https://alertfind.com/amateur-radio-and-emergency-communications/>

Disaster Preparedness on a Budget

<https://couponfollow.com/research/disaster-preparedness-on-a-budget>

## From the annals of PPRAA history

**May 1981:**

**The club is looking into the possibility of setting up a club station at the Olympic Training Center. The PPRAA is considering dropping its membership from the CCARC until there is improvement in the CCARC. The May meeting will be the last one at Sabin. The club is looking for a new meeting place. Biz, WDØHCO, our publicity chairman, is moving to the Marshall Islands to work on radar installations.**

## ARRL Outgoing QSL Bureaus

[www.arrl.org/outgoing-qsl-service](http://www.arrl.org/outgoing-qsl-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 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,

**K0PRA Your Friends at the  
Parker Radio Association**

**[www.facebook.com/parkerradi](http://www.facebook.com/parkerradi)**

**[oassociation.parkerradio.org](http://oassociation.parkerradio.org)**

**[@ParkerCORadio](#)**



# PPRAA VE EXAMS

**(MONTHLY) APRIL and MAY sessions CANCELLED**

PPRAA VE session has relocated and will be held at 10:00 am on the second Saturday of the month at Pikes Peak Regional Office of Emergency Management

3755 Mark Dabbling Blvd, Colorado Springs, CO 80907, USA

Organizer: [ve@ppraa.org](mailto:ve@ppraa.org)

**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** (Please obtain in advance of the session).
3. **A copy of your amateur radio license** (if any).
4. **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.

Jim Bishop [kd0kql@hotmail.com](mailto:kd0kql@hotmail.com), 719 332-5283  
Dennis Major N0ABC, PPRAA VE Contact



# 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](mailto:k0hbz@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 Please obtain in advance of the session).
- 2. Your ORIGINAL amateur radio license** (if any) **AND a PHOTOCOPY** for the VE Team to keep.



to a computer, and mobile and portable operation are extensively covered. Both the pdf and spiral-bound printed versions are available from Lulu.com, and the print copy is also sold by DX Engineering. You can find them via the links below:

<http://www.ke7x.com/successful/ordering-the-successful-ham-radio-operators-handbook>

Here is a link that describes the book in more detail:

<http://www.ke7x.com/successful>

Follow us on [www.facebook.com/KE7XBOOKS](http://www.facebook.com/KE7XBOOKS) to keep up-to-date on book news and to be notified of book discounts at [www.lulu.com](http://www.lulu.com).

This book has 267 pages, 211 figures and diagrams, and 53 tables of data to make understanding the sometimes complicated ham radio operations much easier. The book follows KE7X's philosophy of presenting material in several forms to accommodate people with different learning styles -- reading, visualizing, hands-on -- with the many figures and text explanations and there are hands-on exercises throughout the book that can help you learn more about your particular radio.

Follow us on [www.facebook.com/KE7XBOOKS](http://www.facebook.com/KE7XBOOKS) to keep up-to-date on book news and to be notified of book discounts at [www.lulu.com](http://www.lulu.com).

One instructor for new and advanced ham classes has said, "This book is exactly what is needed. I've seen some other books targeting the new hams that are less than satisfying both technically and in content but this one is right on the mark and covers so much information that I so often get asked about, during and after teaching classes."

Here are more details on the content:

- With nearly 110 years of ham radio experience between them, the authors are still excited about the challenges this wonderful hobby offers. *The Successful Ham Radio Operator's Handbook* will guide you when exploring some of these.
- Its goal is to help new operators and returning old-timers learn about the breadth of exciting ham radio activities and challenges available today.
- It answers the question "Why is ham radio relevant in the Internet age?"
- It covers a wide range of topics, helping the reader to understand the excitement of different facets of ham radio and to choose a challenging and exciting activity to pursue.
- It helps the reader better understand how the radio works. Many hams only use a small fraction of the features of their radio. For example, if you understand how a noise blanker or a roofing filter or the AGC works, you will be able to more easily use these, and other, features of

your radio to your benefit.

- It provides exercises designed to apply the knowledge to cement your understanding of how your radio works without being radio-specific. It is good for all makes and models.
- It helps the reader get enough background to understand much of the jargon hams who pursue special activities, such as the various digital modes, VHF contesting and moon bounce. It quickly takes the novice reader to higher level of understanding and provides URLs and websites that help the reader go deeper into new interests.
- Antennas remain a key area where all hams can still successfully experiment and create a key part of their station. This book provides information to help new hams get started cutting their own verticals and dipoles. It explains why some popular multiband antennas may have compromises that impact performance.
- It gives practical guidelines about choosing transmission lines and building and using baluns and chokes.
- Digital modes such as RTTY, PSK and the new WSTJ modes are explained. The computer-to-radio connections needed for these modes are discussed and illustrated.
- Many hams are motivated by public service and emergency preparedness. This book describes typical local emergency organizations and national networks.
- Hams who like to operate while traveling will find practical information on reciprocal international agreements and how to get permission to operate legally.

## Online Practice Test Sites



Study for your Amateur Radio License exam:

**[Technician \(2018-2022\)](#)**

**[General \(2019-2023\)](#)**

**[Amateur Extra \(2019-2020\)](#)**

**[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

