



VOLUME 70 ISSUE 6  
June 2019

## PPRAA Club Officers

<b>President</b>	<b><u><a href="#">Jim Bishop, KD0KQL+</a></u></b>
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<b>Board</b>	<b><u><a href="#">Jim Goodwin, KD0SFP</a></u></b>
<b>Board</b>	<b><u><a href="#">Jim Rader, KD0NQM*</a></u></b>
<b>Board</b>	<b><u><a href="#">Mike McLaughlin, K0JT</a></u></b>
<b>Board</b>	<b><u><a href="#">Ray Uberecken, AAØL*</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



*New Day Cafe, 5901 Delmnico Dr.*

*8 AM Saturday, July 6, 2019*

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



## May PPRAA Club Meeting

The June 12th 7PM club meeting will be at the Golden Corral on Palmer Park and Powers Blvd (just east of Powers Blvd).

1970 Waynoka Rd, Colorado Springs, CO 80915 [\(719\) 591-9870](tel:7195919870)

# May 2019 Board Meeting Minutes

5/6/2019

CTO @ 6:30 PM by KD0KQL (Jim)

In Attendance:

WV7T (Mike Anderson), KD0JAX (Terry Kift), KE0TWK (Michael Walter), WA0BCM (Jerre Redding), W5UDM (Dick Kohlhaas), AA0L (Ray Uberecken), KD0VRB (Jay Winterton), N7LEM (Doug Nielsen), KD0KQL (Jim Bishop), KD0NQM (Jim Rader), N6JRL (Don DuBon)

Old Business:

- SK's: K5LKT, Billy - W0TOM, Father Tom
- Treasurers report by W5UDM, Dick
- N7LEM, Doug \$31.47 was needed to pay for last minute printed flyers, KD0VRB motioned that we accept this expense, KD0NQM, Jim 2<sup>nd</sup>. *All in Favor*
- Webmaster report, N7LEM, Doug
- Secretary's Report – KD0VRB, Jay – KD0KQL, Jim will reach out to K0MAX, Neal regarding doing a Fox Hunt on field day.
- N6JRL, Don – 8/24 picnic date at Fox Run Regional Park. N7LEM, Doug and W5UDM, Dick have credit cards to make the reservation (they also have mail box keys). Make decision Wednesday night about doing Christmas party at Golden Coral. KD0VRB, Jay moved that we spend \$100 on the reservation, KD0NQM, Jim 2<sup>nd</sup>. *All in Favor*.
- N4HYF, Raleigh moving to Albuquerque and stepping down immediately as board member. WV7T, Mike is a great option for a club member who's willing to serve on the board. We will ask the club membership in our Wednesday meeting that follows. N6JRL, Don wants to have 2 meeting nights a year with a theme.
  - Theme 1: homebrew night and Don will present certificates. Historically, this has been held in January. Another theme could be an auction night. We could potentially do this in November after the elections.
- N6JRL, Don spoke with his friend from the civil air patrol about doing Wednesday's presentation.
- KD0NQM, Jim – Megafest Report – Everything is purchased and in place. N7LEM, Doug sold \$267 in tickets recently. KD0KQL, Jim has been selling tickets as well.
- WV7T, Mike and KE0TWK, Mike inventory out at Ellicott has been completed. KE0OKO, Larry and KE0SSH, Janet (photographer) helped. Ideas on how to be more accountable for the equipment out there. What items will be sold? Inventory to be put into excel first.
- WA0BCM, Jerre reserved pavilion #2 at Fox Run Regional Park.
- WA0BCM, Jerre – Remote access difficulties. Problems with ISP, potential upgrade needed for the data line coming from the fire station in the underground conduit.
- CCARC Meeting on 5/4 – N7LEM, Doug - Treasurer and Vice Chairman and Frequency Coordinator positions are available. Meeting in Boulder. Presentation on the Rocky Mountain Ham Network.
- KD0KQL, Jim – Membership meeting at Golden Coral on Wednesday.
- W5UDM, Dick will be out of pocket for the next few months tending to family needs.
- K0JT, Michael – Thursday evening 2m net participation by club officers is low and needs to improve.

- N7LEM, Doug – Hamcon Colorado meeting also upcoming on Saturday. Needs POC for UCCS to bring to meeting.
- ARES Report by KD0SFY, John - Skywarn training 4/27 EPC location. Events coming up. Contact on Facebook site regarding somebody trying to generate interest in Harvey Houses On The Air. Weather net to start pack up in May. New web page up for Pikes Peak ARES.

New Business:

- SK's: None
- Treasurers report by W5UDM, Dick
- ZeroBeat Report by WA0BCM, Jerre
- Webmaster report, N7LEM, Doug – everything up to date on meeting venues
- CCARC owes us \$450 COQP plaques
- Secretary's Report – KD0VRB, Jay
- KD0SFY, John is at Falcon with NWS on business. He'll be at the Wednesday club meeting.
- KD0NQM, Jim – Megafest Report – The van and Troop 8 will be there.
- N6JRL, Don – suggested pins to be produced and give with donations made at Megafest. Jay moved that we purchase \$250, Jim KD0KQL 2<sup>nd</sup>. *All in favor.*
- WB7T, Mike and KE0TWK, Michael – work day was stellar. Lots of energy. Checked all of the gear, decided what goes and what stays. WV7T will run table at Hamfest to sell the items. Roof work was also done. We need to replace our 9:1 balun.
- KD0KQL, Jim we are going to sell the Kenwood to Tim and receive a check at the club meeting. Another buyer also found for the Canadian military green fiberglass mast. Ed bought some tower accessories and this money was given to Dick for the sale.
- KD0KQL, Jim met with K3ILC, Jim – he wanted to bring up the following:
  - He's getting burned out on the remote radio because it keeps going down. We need to determine what to do moving forward and who can take over. Perhaps KD0SFY, John could assist. KD0KQL moved that we buy some CAT5 cable to replace our line with. Second by KD0NQM. *All in favor.*
  - Register King Sooper's rewards cards, not the cash card. Non-members of the club can support the club by doing this too.
- W5UDM, Dick suggested we send out an email to all of the club members regarding the King Sooper's reward.
- N7LEM, Doug asked if we have internet access at Golden Coral. We could do sign-ups for KingSooper's at the club meeting if so.
- KD0KQL, Jim - Paypal account access. Dick reported that it's under his name now.
- KD0NQM, Jim – discussion regarding credit card gadget to make transactions. Pam may know what it was linked to. Dick has no information on a merchant credit card account. He suggests that we stick with Paypal.
- K3ILC, Jim took his air compressor out to Ellicott and computers are all working great and free of dust.
- K3ILC, Jim said we still need to fix the Butternut antenna.
- When N0ABC, Dennis and KD0KQL, Jim were at the Boulder Hamfest they had a VE Session and KD0KQL suggested a letter stating our clubs goals, etc. for the club be produced. KD0NQM, Jim has something from the King Sooper's application.

- KD0KQL, Jim – some people are still lost on the club meetings. We only had two people opposed to the Golden Coral location. We were low on the income for the prizes. It was also on a different date, so attendance was low. Only one major prize this week, no bagging of the prizes. We have reservations made for the remainder of the year. If we decide to do the Christmas party someplace else we need to let them know. N6JRL, Don has some presenters lined up for this week, next month (June), and will line up July's soon too.
- Club picnic is not at Fox Run Park, it's at Black Forrest Regional Park, Pavilion 2. Very nice venue close to restrooms. Nice parking lot. Saturday, August 24th. 10 AM socialize, serve 12 or 12:30 PM.
- N6JRL, Don – Fox hunt to be held at the picnic. WV7T, Mike has the trophy.
- KE0TWK, Michael – Jim and he have been talking about public relations. He's willing to help out on this to get our name out in the community. John is involved in it. Perhaps he could do some PR work for our club's Megafest. Could try to get some radio stations and TV stations out by notifying them of the event. This will be handled by Michael via press releases. Over all of the years only one of the weekly newspapers showed up and one of the TV stations showed up. We should decide who meets the media if they show up at any of our events.
- KD0JAX, Terry will be out of club activities or meetings until field day.
- W7VT, Mike – At club meeting will present his 12 minutes video just before our break. Seeking input for the pre-meeting Powerpoint. The ham community came together and we got over \$2k for Billy's wife. Please donate scrap wire to WV7T. If people get interested from our PR efforts we need a means to educate (more than the 2 we currently have) those people. More trainers are needed. One code student currently.
- W5UDM, Dick won't be here Wednesday night. If people need to pay club dues, KD0NQM will take money for the dues.
- KD0NQM, Jim – suggests that we send an email out to the club members regarding Megafest (not through the reflector). The PDF is available on the club website. N7LEM, Doug will bring 20 printouts of the PDF on Wednesday for N6JRL to bring to another Hamfest. We would like to figure out how to promote it even more.
- WV7T, Mike – no update on Millennial Electronics. Skip just can't find the right place for the right price.

Motion to Adjourn @ 7:54 PM by N7LWM, Doug

Second by KD0VRB, Jay

*All in Favor.*

# May 2019 Club Meeting Minutes

5/8/2019

CTO @ 6:59 PM by KD0KQL, Jim

In attendance: 35

Old Business:

- SK's: Billy, K5LKT - Father Tom, W0TOM

N6JRL – W5LFL, Owen Garriott also recently passed away.

- New hams: Who talked you into becoming a ham, or why did you decide? (pick out a couple of new hams) Response from Barbara: Nobody
- KD0KQL, Jim read the letter from Rich's widow, Annette.
- Treasurer's report - W5UDM, Dick
- Motion to accept the treasurer's report by N6JRL, 2<sup>nd</sup> by KD0VRB. *All in favor.*
- May 4<sup>th</sup> 8 AM is the work day out at Ellicott
- N4HYF, Raleigh move that we accept the secretary's minutes as published. 2<sup>nd</sup> by NG0I, Jon. *All in Favor.*
- ZeroBeat Report: WA0BCM, Jerre
- Motion to accept the ZeroBeat by Raleigh, 2<sup>nd</sup> by KD0VRB. *All in favor.*
- SKYWARN training for hams on 4/27 at County EOC on Mark Dabling.
- KE0TWK, Mike status of equipment at Ellicott (inventory). If you have any club equipment please let the club know so it can be inventoried if it has not already been inventoried.
- K3ILC, Jim – Status of remote radio. It's been up and down again. Network problems due to the fire station disconnecting our CAT5 cable during payroll. If any questions about the remote ask him later.
- KD0NQM, Jim - Question about the King Sooper's cards. The cash cards for \$5 that we can put money on no longer goes to the club. The card that you run through at the scanner is the one that you register and gives a percentage to the club. You can register an old card. This can be done through their website through a Community Partners link. Type in "Pikes Peak Radio..." as the organization.
- N6JRL, Don – April Fools Prank on morse code tests for existing hams. Hihi
- N6JRL, Don - QSO card to his brother, N0ZUQ
- Who likes Golden Coral as the venue and who would prefer to go back to IHOP. Golden Coral wins!
- N6JRL, Don - Club Picnic at Fox Run Park on 24<sup>th</sup> of August
- KD0KQL, Jim – hams in Minnesota that replied to the board on the reflector about the Honda 2200W generators and a safety recall. Jim brought his down there and the repair places are fixing many of these.
- N4HYF, Raleigh is leaving the board, WV7T, Mike KE0QCC nominated KE0SSH, Janet 2<sup>nd</sup>. *All in favor.*

New Business:

- Short Video: WV7T, Mike - Effects of EMP and widespread solar weather on the affected population.
- Pledge of Allegiance – Lead by Don, N6JRL
- SK's: K8WWA, Richard Burdick
- Introductions
- New hams:
  - How long have you been a ham? 4 weeks.
  - Do you enjoy using your privileges? Yes.
  - Do you need any help? No. (He's receiving it.)
- Treasurer's Report: W5UDM, Dick was absent from our meeting. This item was skipped.
- Special Presentation – ARRL recognized Neal Larsen as being an outstanding Elmer in our area. Certificate presented. KD0KWL also recently presented with a similar certificate.
- Secretary's Report: KD0VRB, Jay
  - N4HYF, Raleigh move that we accept the secretary's minutes as published. 2<sup>nd</sup> by KD0NQM, Jim. *All in Favor.*
- ZeroBeat Report: WA0BCM, Jerre
- Webmaster Report: N7LEM, Doug – ZeroBeat, March and April minutes are on the website. W9IMS is available as a special event station. More information on the W9MAS website. June 1-2 is the Ships on the Air event. Colorado QSO Party 31<sup>st</sup> of August -that's when everybody wants to talk with Colorado hams.
- Table Reservations for Hamfest –NG0I, John
- WV7T, Mike and KE0TWK, Michael - Status of Equipment at Ellicott and current Inventory. Current report of equipment and if it's going to be kept, sold (at Megafest?) or is in use.
- PPARES Report: KD0SFY, John
  - SKYWARN Training -most sessions have been completed for this area. You can do the online training as well.
  - Brief on SKYWARN training in Falcon 5/6/19 – Lots showed up
  - Mountaintop Cycling Club – need operators
  - Garden of Gods 10 Mile – easy to start into. Need a few operators for this too.
  - International Hill Climb also coming up.
- K3ILC, Jim – Is the remote going to be worth the effort to keep it up? Should we find someone who can get it operational on a continuing basis? Who? Should we replace CAT cable to see if that will fix it? Volunteers gladly accepted to help the situation. We've got some assistance offered by N0QMG, Andrew.
- Megafest Report: KD0NQM, Jim and/or N6JRL, Don
- KD0NQM, Jim - KingSoopers membership cards (not the cash cards) can be registered by anyone and linked to our club for our support.
- Youth DXPedition: N6JRL, Don- Status of candidates (Logan Perry). Problem is that he and his grandpa put in for passports but his grandfather's hasn't come in yet. He doesn't have a birth certificate. Logan will have a guaranteed spot for next year.
- New meeting location: Board decided to try Golden Corral last month. Got good feedback from members. Good feedback received tonight as well. Please tip freely because we're receiving better service than we did elsewhere. We're scheduled for the year.

- Club Picnic: We have reserved a spot. Where is it this year? Black Forest Regional Park, pavilion #2. Date – Saturday, 24 August was determined. KD0KQL, Jim visited the site the other day and it's very nice. Similar to Fountain Creek Nature Center and Bear Creek Park which we've used in the past. Bring pot luck items. We'll have the meat.

Program – KE0PLE, Maj. Wayne MacKirdy – Speaker on Civil Air Patrol and his effort to get students licensed in Amateur Radio

Motion to Adjourn @ 8:22 PM by KE0PLE, Wayne, 2nd by N4HYF, Raleigh

*All in Favor*

## THE BEST WAY TO OPERATE HF

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## VARACTOR DIODES

Diodes are mainly a two material component, a P (+) and N (-) material. Mainly to allow current to flow in one direction, but not in the reverse. However, you can do other things with diodes.

Depending on how it is constructed and doped will offer a component that can be used as a variable capacitor, oscillators, frequency regulators and frequency multipliers.

The Varactor diode is one of these components that can be used as a variable capacitor. It is also good for high frequencies in the VHF and UHF spectrum.

Even though a varactor diode has a reverse and forward current, it is not used that way. It is used with a voltage applied in reversed polarity. Therefore not much current will flow through the diode.

The P and N junction are set up to have a capacitance value.

When the voltage is connected in the reverse bias, this capacitance value will change. Some diodes can have a capacitance value at 100 pf. Others can go as low as 4 pf.

A diode that is not reversed bias (nor forward) will develop the maximum capacitance value or lowest reactance. As you bring up the reversed voltage the capacitance value decreases, reactance increases.

For example, a diode with .6 volts reversed bias may have a capacitance value of 85 pf (pico-farads). At 6 volts it can drop to 40 pf. At 60 volts it can go down to 15 pf. This is the minimum and maximum range of this diode. Others will have different values. The best place to bias the diodes is near the middle of its curve.

Therefore you want to pick the diode that fits your needs.

Using a well regulated power source will offer a very good stability. This will allow oscillators (vfo's) or frequency multipliers to be very stable.

Most diodes will develop a variable capacitance with a reverse bias, but the varactor diodes are specifically designed for this purpose and can be used at higher frequencies.

The break through of using diodes in this way years ago, has opened up the higher spectrum for use. Even up into the GHz region.

It is a simple device that can do much in the electronic field.

73,  
Ralph WD0EJA  
JUNE 2019

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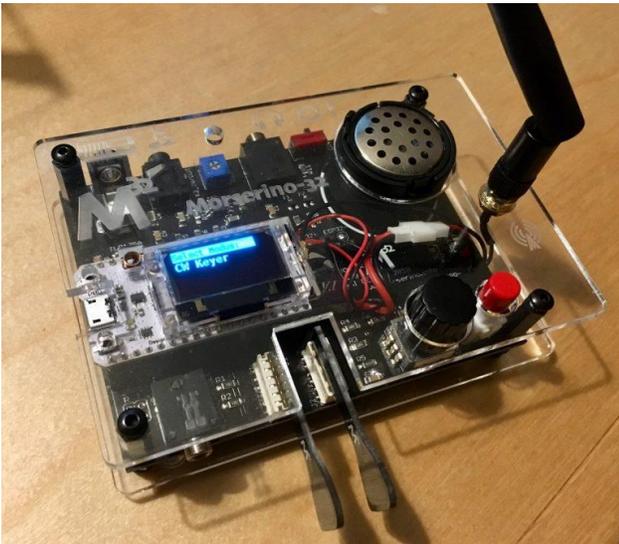
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## Learning about batteries

By Dan Romanchik, KB6NU

I often say that getting an amateur radio license is as much getting a license to learn as it is getting a license to operate on the amateur radio bands. Lately, I've been learning about batteries, LiPo batteries to be exact.

It all started when I purchased a Morserino (<http://morserino.info/>). The Morserino is a Morse Code learning aid that has a number of unique features. For example, in addition to helping you learn the characters, it's also supposed to help you learn how to copy in your head. It also has a built-in touch keyer function, and a LoRa interface that lets you send and receive code from other Morserino units.



I'll be writing more about the Morserino in a future column, but let's get back to batteries. The kit did not come with a battery. Instead, it was suggested that one purchase a 600 mAh LiPo battery commonly used for powering drones. [I found this battery on Amazon](#), and purchased a six pack of them, thinking that I'd find uses for the other five in some project or another.



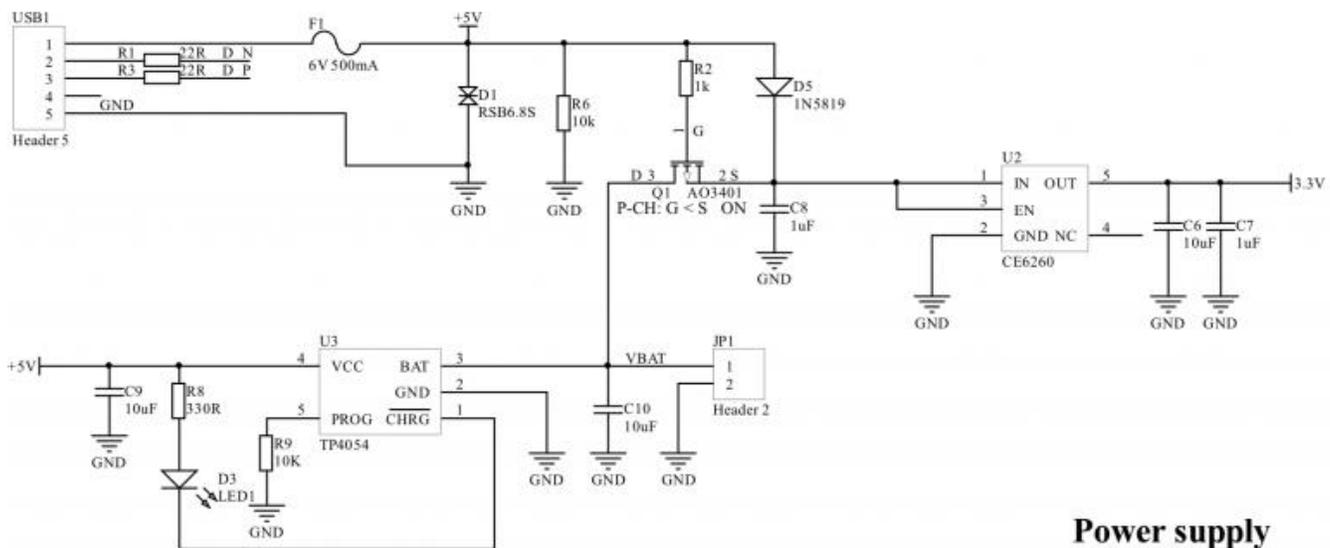
Well, sooner than expected, I did find another application for one of the batteries. I'm building a little Arduino project for a client, and I reckon that this, or one with more capacity, will make a great power source for the project.

Now, I have two immediate challenges:

1. Figure out how to charge the battery.
2. Figure out how to connect it to the Arduino.

On the Morserino, the battery plugs directly into a connector on the bottom of the computer board (the white board with the LED display). I knew that connecting the 5V line from the USB connector directly to the battery was a no-no, but I'd lent out the Morserino to a friend, and I didn't have the schematics for the board. So, how they managed to charge the battery from the USB port was a bit of a mystery.

I emailed Willi, OE1WKL, the designer of the Morserino, and he sent me a wealth of information. There actually is a battery-management IC, the TP4054, on the board:



**Power supply**

He also gave me the part number for the battery's mating connector. He said, "The mating connector for the Molex connector on the battery is a Molex 51006. It is sometimes referred to by vendors as 51005 female, but 51005 is the connector on the battery." You can, of course, buy pre-made cable assemblies on Amazon (<https://www.amazon.com/gp/product/B07P54QTR8>).

You can also buy lithium battery charging modules (<https://www.amazon.com/gp/product/B01LZSC7I8>). These modules have a TP4056 on them, which is similar to the TP4054. It's amazing to me that you can purchase ten of these things for less than seven bucks.

So, that's where I'm at right now. Once I get the modules and cables, I'm going to hook it all up and get the Arduino system running from the battery. The next step will be to integrate a small solar panel and run the whole thing from solar power, hopefully.

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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 one of the hosts of the No Nonsense Amateur Radio Podcast (NoNonsenseAmateurRadio.Com). He often wonders if he can learn things fast enough.

I thought I would repeat the following information article that was in last month's Zero Beat in case anyone missed it

## World Scout Jamboree Gearing Up for Significant Amateur Radio Presence

Amateur Radio will be a part of this summer's 24th World Scout Jamboree in West Virginia, the first World Jamboree held in North America since 1983. The Jamboree has chosen the theme "Unlock a New World." Thousands of Scouts and Scout leaders from some 200 countries are expected to attend. The Jamboree's Amateur Radio Exhibit will use the call sign [NA1WJ](#) -- **North America's 1st World Jamboree**. It will be on the air during the event, July 22 until August 2, at the Summit Bechtel Reserve, hosted by Canada, Mexico, and the US. Amateur Radio testing is expected to begin as early as July 14. Operating frequencies will be posted in real time via [Facebook](#) and [Twitter](#) or via an [NA1WJ email group](#).



"The goals of the Amateur Radio station at the World Scout Jamboree are to introduce Amateur Radio to Scouts and Scout leaders through hands-on participation in two-way communication with other stations across the globe. This activity will also serve as the Amateur Radio voice of the Jamboree," the [World Scout Jamboree Amateur Radio Exhibit Operational Vision document](#) states. Other facets of Amateur Radio at the Jamboree will include Amateur

Radio direction finding (ARDF), Amateur Radio satellite contacts, and a scheduled Amateur Radio on the International Space Station (ARISS) contact with an ISS crew member.

"We also expect to launch one or two balloons with Amateur Radio payloads and track them as they cross the Atlantic," the vision document continues.

Organizers are encouraging radio amateurs around the globe to get on the air during the World Jamboree to help NA1WJ demonstrate Amateur Radio for Jamboree visitors.

The 2019 World Scout Jamboree operation at the Summit Bechtel Scout Reserve will take advantage of lessons learned by the K2BSA Amateur Radio operation during the 2013 and 2017 USA National Jamborees. It will also take advantage of the existing infrastructure, which includes three VHF/UHF repeaters installed by Icom America, as well as the utility poles for installing antennas. K2BSA ham gear stored in West Virginia includes antennas, rotators, and cables.

Evening operation from NA1WJ will involve at least two operators using the buddy system. VHF/UHF repeaters will offer full coverage of the Jamboree area via handheld transceivers, facilitating networking as well as emergency communication. The exhibit will include an Amateur Radio station with the special event call sign W8J.

The demonstration station will include multiple operating positions offering a variety of modes. These include six stations with 100 W HF transceivers,



computer logging software, and large screen computer displays; two VHF/UHF stations for demonstrations and repeater monitoring, and two satellite communication systems. The antenna farm will include two HF directional antennas, three HF dipoles, three HF vertical antennas, VHF/UHF verticals and satellite antennas with azimuth and elevation control, a trailer-based crank-up tower, a five-band Yagi, a 40-meter rotatable dipole, and a 6-meter Yagi.

Each station will be able to accommodate four participants at a time, plus one control operator. The goal is to give each participant up to about 10 minutes of operating time.

## ARISS Seeks Hosts for Ham Radio Contacts with Space Station Crew Members

Starting on April 1, Amateur Radio on the International Space Station ([ARISS](#)) will accept applications from US schools, museums, science centers, and community youth organizations (working individually or together) interested in hosting contacts with orbiting crew members on the International Space Station (ISS). Contacts will be scheduled between January 1 and June 30, 2020.

Each year, ARISS provides tens of thousands of students with opportunities to learn about space technologies and communications through Amateur Radio. The program provides learning opportunities by connecting students to astronauts aboard the ISS through a partnership between ARRL, AMSAT, and NASA, as well as other Amateur Radio organizations and worldwide space agencies. The program's goal is to inspire students to pursue interests and careers in science, technology, engineering, and mathematics (STEM) and Amateur Radio.

ARISS says enthusiasm sparked by a school contact has led to an interest in ham radio among students and to the creation of ham radio clubs in schools. Some educators have even become radio amateurs after experiencing a contact with an ISS crew member.

ARISS is looking for organizations capable of attracting large numbers of participants and integrating the contact into a well-developed, exciting education plan. Students can learn about satellite communications, wireless technology, science research conducted on the ISS, radio science, and any related STEM subject. Students learn to use Amateur Radio to talk directly to an astronaut and ask their STEM-related questions. ARISS will help educational organizations locate Amateur Radio groups who can assist.

The deadline to submit proposals is May 15. Proposal webinars for guidance and questions will be offered on April 11 at 7 PM EDT (2300 UTC) and on April 16 at 9 PM EDT (0100 UTC on Wednesday, April 17). [Advance registration](#) is required. [More details](#), such as expectations, proposal guidelines, and the proposal form, are on the ARISS website.



**Astronaut Chris Hadfield, VA3OOG, speaks to students from NA1SS in 2013.**

## 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/>

## Major Events

### **Museum Ships Weekend Event**

- Saturday June 1, and Sunday June 2, 2019
- On Air
- More info [here.](#)

### **Field Day**

- Saturday/Sunday June 22-23, 2019
- Club Station, Ellicott, CO
- More info under Field Day tab above

### **PPRAA Megafest**

- Saturday July 27, 2019
- Lewis-Palmer High School, Monument, CO
- More info under Megafest tab above

### **2019 ARRL Rocky Mountain Division Convention**

- Friday August 8 thru Sunday August 10, 2019
- Weber State University Union Building
- West Campus Drive, Ogden, UT 84201
- More info [here.](#)

### **Denver Radio Club Hamfest**

- 18 August 2019

- Jefferson County Fairgrounds, Golden, CO
- More info [here.](#)

### **PPRAA Annual Picnic**

- Saturday, 24 August 2019
- 1000-1500 MDT
- Food served around 1230
- Pot Luck (Bring a salad, side dish, or dessert)
- Club provides burgers, brats, drinks
- Location: Pavilion 2 Black Forest Regional Park

### **Colorado QSO Party**

- Saturday August 30, 2019

### **WWV Centennial Special Event Station**

- 28 September – 2 October 2019
- On Air and Fort Collins, CO
- Operators needed
- More info [here.](#)

### **BARCfest**

- Sunday, 6 October 2019
- Boulder County Fairgrounds, Longmont, CO
- More info [here.](#)

### **JOTA-JOTI – Jamboree-on-the-Air/Internet**

- 18-20 October 2019
- More info [here.](#)

### **TechFest – 2019**

- Saturday November 2, 2019
- More info [here.](#)

### **2020 ARRL Rocky Mountain Division Convention**

#### **Hamcon Colorado 2020**

- Thursday, 6 August 2020: DX University
  - Friday August 7 thru Sunday August 9, 2020
  - Keystone Conference Center
  - Keystone, Colorado
  - More info [here.](#)
- 
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### **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.

**Subject:** WWV Centennial Celebration and special event amateur radio station

**Date:** Jan 22, 2019 5:29 PM

1/22/19

Pikes Peak Radio Amateur Association, AF0S

To whom it may concern,

The Northern Colorado Amateur Radio Club (NCARC) is planning a special event amateur radio station to commemorate the 100th anniversary of radio station WWV. The National Institute of Standards and Technology (NIST) lists their celebration for October 1, 2019 (see attached press release). NCARC plans to operate a multi-station, multi-modal 24-hour effort for 5 days from September 28 through October 2, 2019. NIST and NCARC have been in collaboration but had to suspend planning when the government shutdown starting December 22, 2018.

Our committee decided we needed to reach out on our own; there appears to be no end in sight. We look forward to an eventual resolution, returning to planning this event with NIST, to their own press release, and to putting on a wonderful celebration of a major technological and historical milestone at the end of September 2019.

The enormous effort will require a large number of hams. While we will have some of our club members as operators, we know this effort is way more than we can do on our own. It would be our pleasure to share this experience with other clubs and amateurs who may have an affinity to WWV.

We plan to have an open application period, beginning mid to late February, no later than March 1. We will post the most current information on the Operators page of our website. Application instructions and requirements will be posted as soon as they are available.

We encourage you to consider a beautiful fall visit to Fort Collins and Wellington, Colorado! It will be a serious operating event, we think potentially akin to a DXpedition, but also should be a huge amount of fun and something to be proud of and remember.

Please share the press release with your club members, and do check on the event website, WWV100.com <<http://wwv100.com/>>, WWV100.org <<http://wwv100.org/>>, or WWV100.net <<http://wwv100.net/>>, often. It may take some time for the government to return to normal when it does re-open, but we will report any updates as we learn about them and can make them public.

Thank you and 73,  
Dave Swartz, W0DAS  
WWV Committee, NCARC

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

# 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 1982:

Harry WDØFRJ writes how to take a Hustler fold-over mast and resonators and cut them down to work on HF with lower wind resistance. The Rocky Mountain Rendezvous Swapfest sponsored by the Mountain Amateur Radio Club will be held on July 17 and 18 at Red Rocks Campgrounds. The club is following the activity of the cable TV provider, whose frequencies on cable are near the 144 and 220 MHz amateur bands. Hopefully there will be little interference. KØTER passed around sign-up sheets for the Walk for Mankind and for Field Day. The 1982 membership list is printed in this issue. There are 55 members registered.

## 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 WOCDS 2M repeater as well. Considering our KOPRA repeater is being relocated, using the WOCDS 2M side would be best (please follow common/courteous practice when linking).

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

We'll see you on the air!

73,

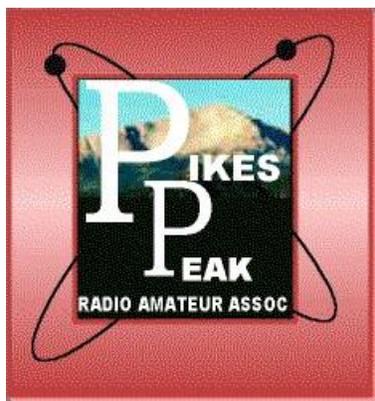
KØPRA

Your Friends at the Parker Radio  
Association

[www.facebook.com/parkerradioassociation](http://www.facebook.com/parkerradioassociation)

[on parkerradio.org](http://parkerradio.org)

[@ParkerCORadio](#)



# PPRAA VE EXAMS

## (MONTHLY)

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

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

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

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

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

Jim Bishop [kd0kql@hotmail.com](mailto:kd0kql@hotmail.com), 719 332-5283



## MARC VE EXAMS

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

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

Full information, including driving directions to the Woodland Park Library, is available under "VE Sessions" on the MARC website at <http://www.nx0g.org/ve.html> or contact Wes Wilson (KØHBZ) at [k0hzb@arrl.net](mailto:k0hzb@arrl.net) or call (719) 687-8758.

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

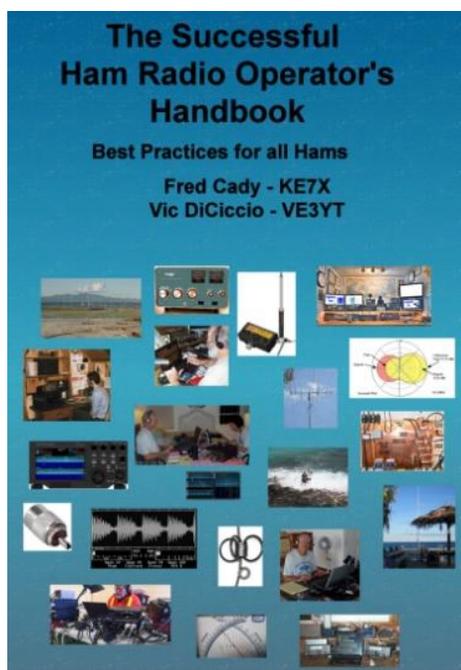
**A valid PHOTO ID**, driver's license preferred (if you do not have a valid photo ID, please call for alternative identification requirements).

- 1. Your FRN NUMBER** (now required – this includes children).
- 2. Your ORIGINAL amateur radio license** (if any) **AND a PHOTOCOPY** for the VE Team to keep.

3. The ORIGINAL of any relevant CSCEs you have AND a PHOTOCOPY for the VE Team to keep.

4. Cash, Check or Money Order for \$15 (standard ARRL VE Fee). Checks and money orders should be made out to MARC and covers all the different exams you wish to take at the VE session.

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



## The Successful Ham Radio Operator's Handbook

This new book is aimed at new or returning hams to help them understand the practical aspects of the hobby, how to use their radios, build antennas and baluns, and get on the air successfully. In it you will find explanations of how the various parts of your ham radio - the transmitter and receiver – work, plus how these are being implemented using software defined radio technology. Operating techniques for VHF/UHF repeaters, HF radio DXing techniques, and the new digital modes are covered. Radio propagation, antennas, transmission lines, SWR and the mysteries of baluns are explained. Building your HF station, choosing a radio, connecting your radio 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-operator-s-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 \(2014-2018\)](#)

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

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

[Other...](#)

### HamExam.org Amateur Radio Practice Exams

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

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

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

AA9PW.COM

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

Date: \_\_\_\_\_  New Membership  Renewal

Name: \_\_\_\_\_

E-mail address: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Call: \_\_\_\_\_ License Class: \_\_\_\_\_ Telephone: \_\_\_\_\_

Are you an ARRL member?  Yes  No

Additional Name: \_\_\_\_\_ Call \_\_\_\_\_ Class \_\_\_\_\_ ARRL member?  Yes  No

Additional Name: \_\_\_\_\_ Call \_\_\_\_\_ Class \_\_\_\_\_ ARRL member?  Yes  No

Additional Name: \_\_\_\_\_ Call \_\_\_\_\_ Class \_\_\_\_\_ ARRL member?  Yes  No

Full Member - \$15.00

Full Member over 65 - \$10.00

Free - VE Signature Required:

Family Membership (same address) - \$18.00

Family Membership (both over 65) - \$12.00