



VOLUME 70 ISSUE 8  
August 2019

## PPRAA Club Officers

<b>President</b>	<u><a href="#">Jim Bishop, KD0KQL+</a></u>
<b>Vice President</b>	<u><a href="#">Don DuBon, N6JRL</a></u>
<b>Secretary</b>	<u><a href="#">Jay Winterton, KD0VRB+</a></u>
<b>Treasurer</b>	<u><a href="#">Dick Kohlhaas, W5UDM+</a></u>
<b>Ø-Beat Editor</b>	<u><a href="#">Jerre Redding, WAØBCM</a></u>
<b>Webmaster</b>	<u><a href="#">Douglas Nielsen, N7LEM</a></u>
<b>Past President</b>	<u><a href="#">Rich Milligan, ADØNP SilentKey</a></u>
<b>Board</b>	<u><a href="#">John Bloodgood, KDØSFY</a></u>
<b>Board</b>	<u><a href="#">Terry Kift, KD0JAX*</a></u>
<b>Board</b>	<u><a href="#">Virgil Yost, N0XRS*</a></u>
<b>Board</b>	<u><a href="#">Raleigh Holcomb, N4HYF</a></u>
<b>Board</b>	<u><a href="#">Jim Goodwin, KD0SFP</a></u>
<b>Board</b>	<u><a href="#">Jim Rader, KD0NQM*</a></u>
<b>Board</b>	<u><a href="#">Mike McLaughlin, K0JT</a></u>
<b>Board</b>	<u><a href="#">Ray Uberecken, AAØL*</a></u>
<b>Board</b>	<u><a href="#">Mike Anderson, WV7T</a></u>

\* 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



*Omelets Etc. 1616 South 8<sup>th</sup> Street*

*8 AM Saturday, Sept 7, 2019*

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



## August PPRAA Club Meeting

The Aug. 14th 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



Megafest photos







# July 2019 Board Meeting Minutes

7/8/2019

CTO @ 6:30 PM by KD0KQL (Jim)

In Attendance:

WV7T (Mike Anderson), KD0JAX (Terry Kift), W5UDM (Dick Kohlhaas), AA0L (Ray Uberecken), KD0VRB (Jay Winterton), KD0SFY (John Bloodgood), N7LEM (Doug Nielsen), KD0KQL (Jim Bishop), KD0NQM (Jim Rader), N6JRL (Don DuBon), N4HYF (Raleigh Holcomb), K0JT (Mike McLaughlin), KOEYE (Stephan), Virgil,

Old 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.

#### New Business:

- SK's: WB0JMV
- Treasurers report by W5UDM, Dick
- Webmaster report, N7LEM, Doug – New July list of members received and will be updated soon on the website.
- Secretary's Report – KD0VRB, Jay
- PPARES Report by KD0SFY, John - The Pikes Peak Hill Climb went well except for the fatality of one of the racers of course. The Cycling Hill Climb and the Ascent Marathon are coming up.



- N6JRL, Don and KD0NQM, Jim – Megafest Report - Sign up sheets will be at the club meeting. They need people to help with the Megafest. Friday night set up will start it off and then they'll get together for dinner. Board members and chairmen will be introduced at the Megafest prior to the raffle drawings. Pictures of the winners will be taken.
- KD0KQL, Jim – He was approached by Don (one of the CMRG folks) and was a little upset that nobody asked to use the repeater.
- KD0KQL, Jim – The situation with the remote site radio internet connection is still unresolved at this time. Work in progress on a couple of fronts. It may cost <> \$50 per month plus their (CenturyLink) modem. Create a committee of knowledgeable folks to explore possible options because I don't know enough about it? John – Options: Microwave wireless, satellite internet, broadband hotspot, DSL.
- N6JRL, Don – He and his wife went out to the Club Picnic site. Great location. It's at Black Forest Regional Park pavilion # 2. 24 August. A copy of reservation needs to be posted at the pavilion so no one else gets it while we're there. The club will provide burgers and hot dogs.
- Christmas Party: N6JRL - Status and agreement as to where. Will bring up at the club meeting Wednesday night. Catered or BYOGrub (potluck)? Traditional. Minimal charge to offset price charged to club treasury? How much? \$600 Deposit. \$75/HR. RSVP is very important for planning here! The location he has in mind has A/V capabilities.
- Raleigh, N4HYF: Still moving, but now to Lawton, Oklahoma. Medical issues delaying their move.
- Theme night?: October after elections / no program, and January? Home brew and ???
- Thursday PPRAA Net: Attendance is pretty good, but lacking officers and board members checking in. It's a good net, please support it. Will K0JT need a replacement? He will be out the next few weeks and all of August.
- Field Day 2019: How did it work? It went great. CW carried us, sideband helped. What didn't work? The internet.
- KD0NQM, Jim – HRO in Denver is out of flyers. Doug will run them out on Saturday.
- N6JRL, Don – PPRAA pins are free with \$5 or more donation. They will be at the club meeting.
- N6JRL, Don – July 14<sup>th</sup>-19<sup>th</sup> will be the dates of his youth DXpedition. Please get on your radios and make contacts with the youth. Their callsign is PJ2Y. Don will be back on the 22<sup>nd</sup>.
- Program at club general meeting, Don, N6JRL.
- Satellite antenna use at the site would be nice. We have the antenna, need to set up our azimuth and elevation antenna.
- John – contacts via the Facebook page. Hopefully a couple of new faces at Wednesday's club meeting.
- N6JRL, Don – asked John about his spotter ID. Has not received it yet.
- N4HYF, Raleigh – Working parties should be more regular.
- KD0KQL, Jim - AF0S needs to have a new trustee. Doug volunteered.
- KD0KQL – Our inventory guy, KE0TWK, Mike, fell and got very messed up pretty badly. He said that he can make it to the club meeting Wednesday night and KD0KQL will give him a ride.
- KD0NQM – plenty of cards for King Sooper's. Asked if anybody wanted a card.

Motion to Adjourn @ 7:43 PM by KD0NQM, Jim  
Second by N6JRL, Don  
*All in Favor.*

## July 2019 Club Meeting Minutes

7/10/2019

CTO @ 6:59 PM by KD0KQL, Jim

In attendance: 44

Old Business:

- 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.

#### New Business:

- Call to Order by KD0NQM, Jim at 7:01 PM
- Pledge of Allegiance – Lead by N6JRL, Don
- SK's: WB0JMV
- Introductions
- New hams:
  - Have you become involved in local nets, etc.? No, but he was involved with Field Day.
- WV7T, Mike – We failed at helping Billy's wife pack for her move.
- Treasurer's Report: W5UDM, Dick
- Secretary's Report: KD0VRB, Jay
- KD0KQL – We've established a committee to work on the internet solution out at Ellicott.
- ZeroBeat Report: WA0BCM, Jerre
- Webmaster Report: N7LEM, Doug – He's been updating the membership list on the website.
- PPARES Report: KD0SFY, John – International Hill Climb event – unfortunately there was a fatality of one of the motorcyclists. Bad weather was an issue and made for a longer day.
  - Upcoming Events: Pikes Peak Cycling 8/10 and Ascent Marathon 8/24, 8/25.
  - You can register on the PPARES website.
- Megafest Report: KD0NQM, Jim and/or N6JRL, Don – 7/27 is our Megafest. We need volunteers and a signup sheet for assisting to let vendors in and work up front. Training will be provided. Friday night help is needed to set up tables and chairs, beginning about 4 PM or 4:30 PM. It only takes an hour and a half and dinner will be provided.
- KD0NQM, Jim – King Soopers membership cards (not the cash cards) can be registered by anyone and linked to our club for our support. We have cards and info on how to register them. You don't have to put up any funds. Just get the card registered and then have your card scanned each time you check out at King Soopers.
- Table Reservations: NG0I, John - How many tables reserved to date? 41 out of 100. We usually get quite a few reservations during the last few weeks. Trying something new: Anderson Windows out of Denver requested permission to have display space. Granted.
- WV7T, Mike and KE0TWK, Michael - Status of Equipment at Ellicott and current Inventory. Bringing excess donated "stuff" to sell at club table. Mike could use help Saturday morning getting everything inside to the table to be sold. He'd like to get a table as close to the raffle table as possible.

- N6JRL, Don- Youth DXpedition is next week (14th – 19<sup>th</sup>). Listen for PJ6Y and please make contact. The kids are trying to break the current record. Modes include: CW, FT8, SSB
- N6JRL, Don – Pins come with donations \$5 or greater. Proceeds go into the scholarship fund.
- New meeting location: Please tip appropriately for good service.
- Christmas Party: In work, Don, N6JRL. Catered, minimal charge, paid for, will get overpayment back. Regular club meeting night at Community Center in Black Forrest. We are requesting a donation for the meal.
- N6JRL, Don - 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 and drinks. We'll be starting at 10 AM and eating around 12:30 PM. Please bring your own chairs.
- Board member short: New board member voted in at last meeting. Stefan Kochis, K0EYE
- Thursday Night Net: We need a volunteer to stand in for Mike, K0JT, while he's out of town for the next month or so. Joe volunteered and will take care of being net control.
- Field Day info: We got the butternut fixed up, got the 40m dipole back up, Janet and Larry brought their mower up. Mike, WV7T How did we do? What went on?
- Please tip appropriately for good service.

Program – N6JRL, Don and KD0KQL, Jim – Record of the trip to the top of Cheyenne Mountain

Motion to Adjourn @ 8:50 PM by N7LEM, Doug, 2nd by NG0I, John

*All in Favor.*



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**I have been publishing this technical article since January of 2013. For the past 40 years I have manufactured the Isotron Antennas. This also involved**



**helping many with their very difficult installations. Some of the information will be from what we learned solve these problems. Some information will be right from a text book or credible article.**

**You are welcome to contact me at [wd0eja@isotronantennas.com](mailto:wd0eja@isotronantennas.com) with question you may have.**

**PLEASE FORWARD THIS ARTICLE TO THOSE YOU FEEL WOULD BE INTERESTED.**

## **MEASURING LOSSES IN COAX**

Our coaxial lines are out in the elements day after day. Some are buried. Not the best environment for longevity. How can you measure the losses in coax, the length in wavelength and velocity factor?

Measuring power loss is not difficult. There are several ways to make the measurement. You can use a watt meter (two works better) or you can use your fancy shmancy antenna analyzer.

With two power meters (calibrated close together) insert one at the transmitter. The other at the other end of the coax that is terminated with a dummy load that is the same resistance as the coax (normally 50 ohms).

Send a carrier at a known power taking note of the reading at the meter nearest the transmitter. Now dash out to the other meter, have someone key down, then take the reading. The closer meter will have a higher reading than the farther one. Now you can calculate the loss. The formula is:

$$\text{dB} = 10 \log \frac{P_1}{P_2}$$

P1 is the meter near the transmitter.

P2 is the farther meter.

Simple? Anyone can do it, even I can.

How about with an analyzer?

This is even physically easier.

Put your analyzer on the Z function. Open the end of the coax. What ever length your coax is, it will show an impedance (Z) dip on the first 1/4 wavelength. Therefore, you want to start at the lowest frequency your analyzer is capable of. It will dip in Z value every other 1/4 wavelength.

When you find the first dip, take note of the Z value. Then take note of the frequency. If your analyzer goes low enough in frequency, then you have the 1/4 wavelength of your coax.

Take the Z value and calculate the dB loss with this formula:

$$\text{Loss (50 ohm line) dB} = 0.17 \times \text{minimum Z}$$

You can make this measurement every other 1/4 wavelength. This will give you the losses as you increase frequency.

The 1/4 wave frequency can also be used to confirm velocity factor.

Calculate the free space wavelength of your minimum 1/4 wave frequency your analyzer is reading. If your coax is too long for your analyzer to measure, then you can do the same measurement by shorting the coax. Now the reading will be your 1/2 wave frequency of the line.

$$\text{Wavelength (free space in meters)} = \frac{300}{\text{frequency in MHz.}}$$

Then divide by 4 for 1/4 wave or 2 for 1/2 wave.

Take the actual length of your coax and divide it by the free space wavelength. This percentage is your velocity factor.

You can use this value to determine actual 1/2 or 1/4 wave lengths of coax at the frequency you desire. This is done by calculating the free space wavelength at your desired frequency, then multiplying it by the velocity factor percentage.

There are other ways to make these measurements however, these are one of the easiest and fastest.

73,  
Ralph WD0EJA  
AUG 2019

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## Can you copy at 20 words per minute by hand?

By Dan Romanchik, KB6NU

About a month ago, this email from the ARRL was send to the CWOps mailing list:

**From:** Fusaro, Norm W3IZ [<mailto:w3iz@arrl.org>]

**Sent:** Monday, July 1, 2019 4:00 PM

**Subject:** W1AW Code Proficiency Certificate

Greetings Morse Code Enthusiasts.

I have some exciting news that I want to share with you! The ARRL has reinvigorated the W1AW Code Proficiency Certificate program. Several things have changed beginning with our new sponsor, Vibroplex, a legend in Morse telegraphy equipment. If you see Scott Robbins W4PA and the Vibroplex team at a hamfest or convention please be sure to thank him for his support. The Vibroplex logo will appear on the newly designed certificates (see below) and in the award recipient page that will appear every month in QST.

That's right, each month in QST we will publish the most recent recipients of the W1AW Code Proficiency Certificate, beginning with all the 2019 recipients. As a bonus, we are sending all the 2019 CPC holders a new certificate at no cost to replace their older style award.

The award is available to anyone who copies one solid minute of code during the qualifying runs. Complete program details can be found on the web at <http://www.arrl.org/code-proficiency-certificate>.

And to make the award available to more people we will double the number of opportunities to copy the CW text. Beginning September 2019, the qualifying runs will increase from twice per week to four times per week.

I am sharing this advanced notice with the Morse code clubs so that you can share it with your members. I have attached PDF files of the new certificate and the announcement that will appear in August QST, available in digital format July 8. I hope you are as excited about this as I am.

In closing, I want personally thank all of you who promote the use and proficiency of Morse code on the air waves and ask that you challenge your club members to submit their copy for the W1AW Code Proficiency Certificate.

73,

Norm Fusaro, W3IZ  
Director of Operations



Almost immediately after I posted this to my blog (at KB6NU.Com), my friend, Paul, KW1L, replied, "How does one copy legibly at 40 wpm?" When I replied, "Typing," he countered, "On page 98 of the July 2019 QST, it says, 'Legibly copy at least 1 minute of text by HAND...'"

To this, I replied, "Well, I guess you and I are both screwed then. I can't copy by hand at 20 wpm, and it's really not worth it to me to practice and get that fast. I'm guessing that I'm not alone in this regard. The upshot is that the ARRL is going to be sending out a lot fewer of these Vibroplex certificates than they think."

I then emailed W3IZ for a clarification. He shot back, "By hand is to mean not using a code reading machine." I suggested that he clarify this, both on the ARRL website and in QST. Of course, they haven't yet taken my suggestion, and the website still reads, "Copy one of W1AW's qualifying runs and submit one minute of solid copy (legible)."

=====

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 is one of the presenters the ICQPodcast (ICQPodcast.Com). Feel free to reply to his CW CQs at any speed you so choose.

NOTE: You can find an image of the new certificate at <https://www.kb6nu.com/wp-content/uploads/2019/07/2019-Code-Proficiency-Certificate-Vibroplex-768x597.jpg>

## MIKE ANDERSON, WB0LEY

Many years ago as a teenager (I was one once!) I was given a fictitious book about Amateur Radio (sure sounded exciting). A few years passed and while I was attending high school in Colorado, I met my first "elmer."

Ron Seats, K0LZD, was the electronics instructor at school and through his tireless efforts and the help of Rosie Lewis, WA0MNL, I became WN0EQM in May 1971.

There just didn't seem to be enough hours in a day to make contacts. One evening I was chatting in CW (it's all Novices had then, including crystal control, no VFOs) with my friend David Hamula, WN0FHQ, and I fell asleep on the key. Dave had to call my mother on the phone to come to the shack and wake me up so I'd stop transmitting a dead carrier.

No one ever told me how to properly tune up a transmitter, so with no manual I just peaked up everything and . . . BOOM! No more filter capacitors! I spent my Novice internship with a fine Amateur club, the Pikes Peak Radio Amateur Association of Colorado Springs, CO.

Not being all that bright with theory, but very good at CW, taking the General exams (the old 50 question test) in Denver was not a festive event. Five written exams had come and gone when WN0EQM expired. I was bummed out! Depressed! Fortunately with Article 97.79D, I was still able to ham in a fashion.

Forty-five days after 'EQM became history (attempt number six) I finally passed the General and in August 1973 WB0LEY was born.

A year and eight months in the Navy (four at Great Lakes, IL) and four exams later, WB0LEY changed from General to Advanced. The license caught up with me in the Philippine

Islands at the moment my ship was pulling out to sea.

After doing four years in "Uncle Sam's Canoe Club," I returned to Colorado to attend college at the University of Southern Colorado with my longtime friend Martin Roe, WB0JNV (Amateur buddies since high school). I then set forth on a journey to scale Amateur Radio's highest mountain . . . the Amateur Extra!

In the passage of time, I married my XYL Rhoda, formerly KN0YFP. She's now KB2BZY and is a Technician

working on General. It was a funny coincidence — her license expires on my Navy retirement date (wonder if that means something?).

After 10 years and 10 exams, in November 1987 I finally made it to the summit of Amateur Radio. I passed the Extra!

So in the course of 18 years, with 22 Amateur exams, I became an Amateur and made it to the top and I have an Amateur XYL, very rare vintage too! She doesn't mind my getting that new rig. Don't you wish you had one, too (the Amateur wife that is!)?

So it seems apparent to me that dreams can come true! □

Written September 1990 and published in Worldradio magazine.



## 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.**

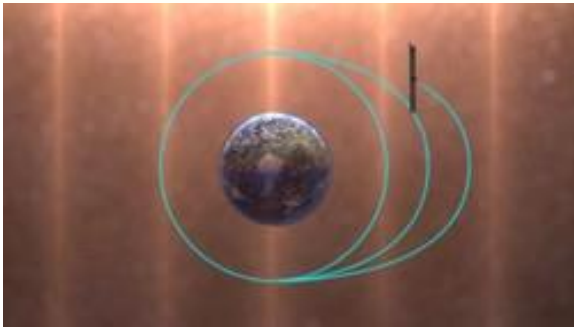


## LightSail 2 Launches, Will Transmit CW Beacon

The Planetary Society's [LightSail 2](#) CubeSat, launched on June 25, will transmit Morse code from space on 437.025 MHz, within the Amateur Radio 70-centimeter band. LightSail is a citizen-funded project to send a small spacecraft, propelled solely by sunlight, into Earth's orbit. The innovative satellite is due to be deployed on July 2 from Prox-1, a Georgia Tech student-built spacecraft. Once deployed, LightSail 2 will automatically transmit a beacon packet every few seconds, which can be decoded into 238 lines of text telemetry describing the spacecraft's health and status, including everything from battery status to solar sail deployment motor state.



LightSail 2 lifted off from Kennedy Space Center, Florida, carried by the SpaceX triple-booster Falcon Heavy rocket. The launcher also carried aloft two dozen US Air Force spacecraft.



"During its ride to orbit, LightSail 2 was tucked safely inside its Prox-1 carrier spacecraft," The Planetary Society said post-launch. "The Falcon Heavy upper stage's payload stack released Prox-1 about an hour and 20 minutes after liftoff, at an altitude of roughly 720 kilometers (446 miles). Prox-1 will house LightSail 2 for one week, allowing time for other vehicles released into the same orbit to drift apart so each can be identified individually."

LightSail 2 team members will soon converge at Cal Poly San Luis Obispo in California, where the spacecraft's mission control is located. Once LightSail 2 is released from Prox-1, the team will spend several days checking out its systems before commanding its dual-sided solar panels to deploy. Following that, the spacecraft's solar sails will be deployed in approximately 2 weeks.

Two US Naval Academy student-built satellites carrying Amateur Radio payloads were on the launch. BRICSat-2 (call sign USNAP1) will function as a 1.2/9.6 kB APRS digipeater on 145.825 MHz. Telemetry will be transmitted on 437.975 MHz. PSAT-2 also will operate on 145.825 MHz with APRS to voice and DTMF to voice/APRS, and it will carry a 28.120 MHz up/435.350

MHz down PSK31 transponder. An SSTV camera will transmit on the same downlink. --

*Thanks to The Planetary Society, Bob Bruninga, WB4APR, and AMSAT News Service*



## 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

### 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.](#)
- 
- 

### **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

**July 1982:**

Field Day was a big success. Stations operated using NØST callsign on CW, HF SSB, novice and VHF bands. All had beams and wires. CW logging was done on an HP computer. Despite rain on Friday night, the totals were CW 699, HF 512, novice 168, VHF 18, and a second HF phone got 442. KOAA covered the event on the 5 o'clock news. Jake NØCYR cooked the breakfast with beer pancakes and eggs. Ø Beat editor notes the Ø Beat this month is a little sparse due to lack of articles contributed.

**August 1982:**

Al Bailey ADØZ writes an article alluding to the fact that computers are going to become a part of every ham shack. Period. At the July meeting Ken Morey of Hewlett Packard presented a program on electronic components. The business meeting followed the program. Seven or eight hams are needed to support the Pikes Peak Rodeo Parade on August 3. Dick, WBØDUL, from the Mountain Amateur Radio Club, announced their upcoming hamfest at Red Rocks Campground. Talk-in on the MARC repeater on 145.16. The board considered a motion to lower the dues, but it was eventually decided to leave them at the then-present level. Mark (call?) was arranging a public service announcement tape from the ARRL to be aired on KKTU and KOAA. A motion was passed to purchase a club generator. Les WDØGTA volunteered to add a "The Way it Was" column to the Ø Beat. The August program will be by Ed Means WØVO on satellites.

# ARRL Outgoing QSL Bureaus

[www.arrl.org/outgoing-qs1-service](http://www.arrl.org/outgoing-qs1-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](https://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 Dabbling 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 CSEs** 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 N0ABC, 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 [k0hbx@arrl.net](mailto:k0hbx@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.



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