

**PIKES PEAK  
RADIO AMATEUR  
ASSOCIATION  
(PPRAA)**



**Activities/Meetings**

- HAM breakfast will be at: Doug's 3659 Austin Bluffs Parkway Saturday, 4 June 2016 Join us anytime between 8:00-9:30 AM All are warmly invited
- PPRAA Board Meeting Monday May 9th
- PPRAA Club Meeting, Wednesday, May 11th IHOP 5749 Stetson Hills Blvd
- 10 Meter/2 Meter net Every Thursday 7:00 pm 28.390 MHz—USB 144.200 MHz—USB
- Megafest July 9th Lewis Palmer HS Monument, CO

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**Volume 66 Issue 05**

**May 2016**

**April and May Past**

*April 1980:*

- Excellent article on dB's by Ray AAØL.
- WBØLTV Smitty mentioned that the club should look at incorporation and getting a permit for becoming a nonprofit organization.
- Looks like the June Field Day will be up on Rampart Range Road, 5 mi north of Woodland Park.
- Northern Colorado ARC Superfest No. 2 in June 80.
- Hammy awarded at March meeting to Al ADØZ,
- Jim NØAVY and Warren WBØSJR for teaching the Novice classes.
- Doug WBØMHP continues his grid dip meter article.
- PPFMA conducting a contest to get a logo - little progress so far.

*May 1980:*

- May meeting program presented by Ehrhorn RF Amplifiers.
- Tables go for \$3 at the swapfest.
- August club picnic will be up at Oak's cabin in the mountains.
- ADØZ coordinates hams supporting the Black Forest Outhouse Race.
- April meeting program by WØVO Ed on AMSAT Oscar Phase III.
- Hammy to Jim Brown KBØKP at April meeting for his service to people during a storm.

*April 1981:*

- Dave Gieskieng, WØFK, gave the March presentation on his DL antenna. He also wrote an article for this months' Ø Beat describing the antenna and how it works.
- New novice classes will begin on April 7th at 7:30 pm at North Jr. High.
- The restaurant used for the Saturday morning breakfasts has been closed down – need to find a new restaurant!
- There's a technical article on coax attenuation, velocity factor, etc. this month.
- The April meeting will be by Bob Poirier KØDJ on traffic handling.

*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

**Megafest Grand Prize—Yaesu FT991**



**FT-991 ALL-BAND, MULTIMODE PORTABLE TRANSCEIVER**

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



## PPRAA Officers and Board of Directors

PPRAA Board of Directors consists of four elected officers, seven board members, as well as the past president (time limit dependent). The Ø-Beat editor is a board appointed position and is also a member of the board.

Officers include:

- ⇒ President
- ⇒ Vice-President
- ⇒ Secretary
- ⇒ Treasurer

To send board member's email, browse to the officers section of our website: <http://ppraa.org/about-ppraa/officers>

President	Raleigh Holcomb	N4HYF
Vice-President	Jim Bishop	KDØKQL
Secretary	John Wishart	NGØI
Treasurer	Rich Milligan	ADØNP
Board Member	John Bloodgood	KDØSFY
Board Member	Glenn Brodt	N3ULW
Board Member	Frank Roger	KB3PDT
Board Member	Pam Scott	WØPRS
Board Member	Jim Bishop	KDØKQL
Board Member	Virgil Yost	NØXRS
Board Member	Mike Anderson	WV7T
Ø-Beat Editor	Dan Scott	WØRO
Webmaster	Doug Nielsen	N7LEM

## Online Resources



### PPRAA Website

<http://ppraa.org>

The PPRAA website is the cornerstone for club related information, events, and technical information.

In addition you can register, pay dues, and submit donations. Donations to the PPRAA college scholarship fund are managed by FAR Scholarship Committee

### Facebook / Google+

Follow activities as they unfold, or get reminders of upcoming events.

Links to both Facebook and Google+ social media sites can be found on the [PPRAA.org](http://PPRAA.org).

Or from each social media site search on: Pikes Peak Radio Amateur Association.

### PPRAA Forums

The PPRAA forums are intended to allow users to exchange ideas, ask and answer amateur radio related questions, and plan/discuss upcoming events.

This is a fantastic, but underutilized, tool. Check it out and register at:

[PPRAA.Forumotion.net](http://PPRAA.Forumotion.net)

## Monthly Activities



### Membership Meeting

Held the 2nd Wednesday of the month starting at 7:00.

IHOP  
5749 Stetson Hills Blvd  
(Just west of Powers Blvd)

NOTE: Many show up at 6 pm for kibitzing and grub.

### Board Meeting

IHOP  
5749 Stetson Hills Blvd  
Colorado Springs, CO 80906

6:30pm—8:00pm  
On the Monday preceding the membership meeting.

Board Meetings are open to all members.

### Ham Breakfast

Location changes monthly: Check [ppraa.org](http://ppraa.org) or table of contents, page 1 for the breakfast meeting location.

### 10 Meter/2 Meter Net

Every Thursday at 7pm  
Starts on 28.390 USB then transitions to 2 Meter SSB at 144.200 USB.

## What is ARISS?

Amateur Radio on the International Space Station (ARISS) is a cooperative venture of the Radio Amateur Satellite Corporation (AMSAT), the American Radio Relay League (ARRL) and the National Aeronautics and Space Administration (NASA) in the United States, and other international space agencies and international amateur radio organizations around the world.

The primary purpose of ARISS is to organize scheduled contacts via amateur radio between crew members aboard the International Space Station (ISS) and classrooms or informal education venues. With the help of experienced amateur radio volunteers from amateur radio clubs and coordination from the ARISS team, the ISS crew members speak directly with large group audiences in a variety of public forums such as school assemblies, science centers and museums, Scout camporees, jamborees and space camps, where students, teachers, parents, and communities learn about space, space technologies and Amateur Radio

### Goals of the ARISS program include:

- ⇒ Inspire an interest in science, technology, engineering and math (STEM) subjects and in STEM careers among young people
- ⇒ Provide an educational opportunity for students, teachers and the general public to learn about space exploration, space technologies and satellite communications
- ⇒ Provide an educational opportunity for students, teachers and the general public to learn about wireless technology and radio science through Amateur Radio
- ⇒ Provide an opportunity for Amateur Radio experimentation and evaluation of new

technologies.

- ⇒ Provide a contingency communications system for NASA and the ISS crew.
- ⇒ Provide crew with another means to directly interact with a larger community outside the ISS, including friends and family.

Scheduled ARISS Amateur Radio contacts with the ISS are conducted either by direct contact, or by telebridge contact. The method used will depend on the radio station equipment and experienced radio amateur volunteers available to support the contact as well as technical issues related to the orbit of the ISS over the contact location.

Because the ARISS program supports the testing and installation of Amateur Radio stations aboard the ISS, astronauts have the equipment available to also make unscheduled ham radio contacts with radio amateurs all around the world on a one-to-one basis during their personal time. With a very limited investment in amateur radio equipment, licensed hams, including students who have access to Amateur Radio stations in a classroom, can make individual contact with astronauts aboard the ISS by learning to follow the published orbital schedule and practice some basic Amateur Radio contact techniques.

The above was taken from the ARRL website: <http://www.arrl.org/amateur-radio-on-the-international-space-station>  
To see a video of an ARISS contact browse to this site.

## 2016 Colorado hamfests and convention calendar

A hamfest is a meeting of people interested in Amateur Radio. Hamfests offer exhibits, forums, and fleamarkets for Amateur Radio operators or "hams."

To locate an upcoming hamfest you can use the ARRL Hamfest and Convention Database [search engine](http://www.arrl.org/hamfests-and-conventions-calendar) (<http://www.arrl.org/hamfests-and-conventions-calendar>)

A recent search for the 2016 Colorado hamfests and conventions found the following:

- May 13-15 HamCon Colorado (Keystone, CO)
- 06/04/2016 MARC Tailgate Party (Delta, CO); Montrose ARC
- 07/09/2016 PPRAA MegaFest (Monument @Lewis/Palmer HS);
- 08/21/2016 Denver Radio Club HamFest (Golden @JeffCo Fairgrounds)
- 10/02/2016 Boulder Amateur Radio Club Longmont, CO @ Boulder County Fairground Exhibit Building



## PPRAA Board Meeting Minutes—7 March 2016

PPRAA Board Meeting Minutes  
7 March 2016

Present: Rich Milligan, John Wishart, John Bloodgood, Frank Rogers, Jim Bishop, Jim Rader, Doug & Pat Nielsen, Mike Anderson, Raleigh Holcomb, Pam & Dan Scott, Glenn Brodt

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

**Silent Keys:** None

February board meeting minutes were approved as published. Passed.

### Treasurer's Report

Pam reported that we had \$9657 in our accounts as of 29 February 2016.

### Committee Reports

#### Megafest

The event will be July 9 at LPHS. Pam replied to Kevin's email re: suggestions regarding the Megafest.

#### Hamcon Colorado

Registration is open for the event at the Keystone resort, May 13-15.

Raleigh requested that he be able to place an ad in Zero Beat for club T-shirts. That's OK.

#### Tower

Need to get a cost for putting up the tower.

#### Amazon Smile Account

Need to encourage club members to participate in the Amazon Smile system. The club gets a small kickback from those Amazon purchases.

**Reflector** - John W needs to prepare a presentation on using the PPRAA Reflector for the April meeting.

**Rich** - March program will be National Parks On The Air (NPOTA).

### Hiram Percy Maxim Commemorative Special Event

Mike A reported this event was a big success at both locations. Big pile ups at the club station site and a lot of publicity at the La Junta site.

### Special Event

Mike Anderson, March 16, USS Arizona, call sign K0USN. Will be occurring out at the Ellicott site.

### Field Day Setup

Mike is trying to get a network set up for the event. He is trying to maximize the point count. Need to have a photographer on site to be able to submit photos to ARRL for points. Doug will handle food/cooking, barring schedule conflicts. Mike needs support for publicity.

**Pam/Dan** - W0TLM classes were successful with a high rate of passing.

**Raleigh** - HPM event in La Junta Feb 17. Event was quite successful with a lot of publicity and an article in the local paper. Made about 30 contacts. Suggested that we partner with the La Junta radio club to host some more special events. Need to have more people (than four) to run the event.

**John Bloodgood** - noted that ARES has eight events set up so far for this spring and summer and fall. Skywarn training is coming up.

**Doug** - LARCfest coming up on Mar 26. Hamcon planning meeting coming up on Sat. CCARC meeting is coming up in April in Silverthorne.

### New Business

None.

Next Board meeting: Monday, 11 April 2016, 6:30PM at the IHOP at Powers & Stetson Hills.

The meeting was adjourned at 7:44 PM.

Respectfully submitted,  
John Wishart NGØ1  
PPRAA Secretary  
7 March 2016

## PPRAA General Meeting Minutes—9 March 2016

### PPRAA Business Meeting Minutes 9 March 2016

The meeting was called to order at 7:00 PM by President Raleigh Holcomb at the IHOP Restaurant on Stetson Hills near Powers Blvd. Approximately 33 members and guests were present.

Silent Keys: Layton Munson W0FPG

### Treasurer's Report

Pam reported that we had \$9657 in our bank account as of 29 February 2016.

### Club Station

We will be putting up the tower soon. Will need volunteers for this task.

### Special Events

Mike Anderson reported on several awards and showed the certificate for the Hiram Percy Maxim special event stations on Feb 17. Many visitors came to the La Junta station. The operators at the Ellicott site made a lot of contacts. Showed 3D pictures of the participants.

Another special event USS Arizona next Wed out at Ellicott.

### VE Sessions

New location will be at Library 21C, 1175 Chapel Hills Dr., 9AM, April 9.

### ARES Report

John Bloodgood reported they have eight events set up for the upcoming months. Skywarn training is coming up. May 22 is the CS Security Preparedness Day at Skysox Stadium.

### Megafest

Raffle tickets and flyers are now available.

LARCFest is March 26 in Longmont.

### Zero Beat

Dan welcomes articles for the publication. Send to [zerobeat@ppraa.net](mailto:zerobeat@ppraa.net).

### King Soopers Gift Card Program.

Jim Rader discussed how this program worked. It was moved/seconded to participate in this program. Passed.

### Chris from Mereo

Skywarn class this Saturday April 2 and 9 - FEMA courses. Contact Chris to sign up



### Hamcon

Flyers & registration for this event are now available. It will be held May 13-15 at the Keystone Resort. Doug Nielsen noted that if you want a meal there, you have to sign up for the meal(s) when you register.

### Program

National Parks on the Air (NPOTA) by KN0MAP

### Upcoming Events

Next Board Meeting: 6:30PM, Monday, 11 April 2016, at IHOP Restaurant at Powers & Stetson Hills.

Next PPRAA regular meeting: 7PM, Wednesday, 13 April 2016, also at the IHOP Restaurant.

The meeting was adjourned at 8:12 PM.

Respectfully submitted,  
John Wishart NGØ1  
PPRAA Secretary  
29 March 2016



## PPRAA Board Meeting Minutes—11 April 2016

**Present:** Rich Milligan, John Wishart, John Bloodgood, Frank Rogers, Jim Bishop, Jim Rader, Mike Anderson, Raleigh Holcomb, Pam & Dan Scott, Dan & Pam Scott, Doug Nielsen,

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

Silent Keys: None

February board meeting minutes were approved as published. Passed. Please send to Doug.

### Treasurer's Report

Pam reported that we had \$9523.69 in our accounts as of 31 Mar 2016.

### Committee Reports

#### New Board Positions

- Jim Rader was nominated for new Megafest chairman. Moved & seconded. Passed.
- Rich Milligan was nominated to be our new treasurer. Will be voted on at club mtg Wed.
- Jim Bishop nominated for vice president. Will be voted on at club mtg Wed.

### New Tower Installation

Moved & seconded to spend up to. \$499 for tower installation expenses. Passed.

### Education

Mike A needs some volunteers to head up positions for Field Day. Reviewed activities for the day. He also mentioned several possibilities for special events. Mike would like to buy a club tri-beam antenna that is not in use. Moved seconded the Jr. Tribander for \$100. Passed. Need a letter from me regarding the new officers.

La Junta ham class suggested. This would be in conjunction with the local radio club.

### Megafest

Jim Rader is the new chairman for this activity after Pam's resignation.

### Hamcon Colorado

Registration is open for the event at the Keystone resort, May 13.

### Around the table

Pam - needs to transfer treasurer info to Rich. Wells Fargo and Ent FCU are our two financial institutions.

*Dan* - no April zero beat will be published.

*Doug* - one month to Hamcon Colorado. Expect about 700 attendees. May 13 weekend.

*Jim Rader* - reported on MJ grow lights interference. Need to provide info to city councilman.

*Virgil* - do we need a work day at Ellicott?

Jim BI shop - how did we catch up on scholarship? From our Education fund.

*Frank* - would like to have another General class. Has 2-6 prospects now. Needs instructors.

*Raleigh* - will we sell club assets at Megafest? Yes.

*John W* - commented on Reflector info sheet. Will present at general meeting.

*John B* - Working on Field Day publicity. Set up Twitter acct. posted on various calendars. World Amateur Radio Day is Monday April 18. EOSS triple balloon launch was last Saturday. Next launch is April 23. The ARES Weather Net starts 1 May.

*Rich* - new Laurel VE group testing is going well.

*Jim R* - Would like to see agenda and program for the meetings in advance.

### New Business

None.

Next Board meeting: Monday, May 9, 2016, 6:30PM at the IHOP at Powers & Stetson Hills.

The meeting was adjourned at 8:05 PM.

Respectfully submitted,  
John Wishart NGØ1  
PPRAA Secretary  
26 April 2016

## PPRAA General Meeting Minutes—13 April 2016

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

Silent Keys: None.

### Treasurer's Report

Pam reported that we had \$9523.69 in our bank account as of 31 March 2016.

New Megafest Chairman - Jim Rader  
 New Treasurer - Rich Milligan nominated, seconded. Passed.  
 New Vice President - Jim Bishop nominated, seconded. Passed.

### Megafest 2016

Jim Rader is new chairman, event will be July 9 at LPHS in Monument. Will be selling or silent auctioning off some excess club assets at the event.

### Club Station

We will be putting up a new tower soon (date is TBD). Will need volunteers for this task, including digging a hole for the base.

**Field Day** - Mike Anderson requested volunteers to head up several of the station operations, including the GOTA station. John Bloodgood is helping with the publicity. Dan Scott - IT, Doug Neilsen - food.

### Special Events

Mike A requested suggestions for other types of special events. Needs operators to work the events. Will be hosting another event at La Junta as a joint venture with the local ham club. Would also like to sponsor a Tech class plus a review day and a VE exam locally. Mike has spots available for Tech classes.

### MEREO Report

Chris noted that he is teaching some Skywarn classes.

### ARES Report

John Bloodgood - weather net starts on 1 May (noon on 146.97MHz). Upcoming public service events: Falcon 50 marathons. EOSS launched 3 balloons last

April 9. Field Day publicity - set up PPRAA Twitter account. World Amateur Radio Day April 18. Had some pix from ISS via SSTV.

**Zero Beat** - Dan was unable to publish an edition this month.

**Hamcon Colorado** - Doug reported on the events upcoming at Keystone Resort on May 13-15. We will have a club table to sell raffle tickets, so volunteers are needed there.

### VE Sessions

Dennis NOABC noted the VE team has switched from the ARRL group to the Laurel VE group. Exams are now provided at no charge to individuals taking the tests. Sessions will now be monthly starting in Sept. New location is at Library 21C.

Frank is wanting to set up another General exam class, but needs instructors.

### Program

Email Reflector Information - JRW  
 Field Day Activities Rundown - Chris Schroeder from MEREO

### Upcoming Events

- ⇒ Next Board Meeting: 6:30PM, Monday, 9 May 2016, at IHOP Restaurant at Powers & Stetson Hills.
- ⇒ Next PPRAA regular meeting: 7PM, Wednesday, 11 May 2016, also at the IHOP Restaurant.
- ⇒ Megafest 2016: July 9, 2016, 8AM, Lewis Palmer High School, Monument, CO.

The meeting was adjourned at 9:00 PM.

Respectfully submitted,  
 John Wishart NGØI  
 PPRAA Secretary  
 26 APRIL 2016



## WHAT IS AN INDUCTOR?

### .WHAT IS AN INDUCTOR?

In the electronic field we hear the terms Inductor, Inductance and Inductive Reactance. What are they?

A thorough explanation would take a 2 year college course. However, knowing the basics can be of value.

An inductor and magnetism are closely related.

An electric current will produce a magnetic field. This field is more pronounced when the current is going through a wire. If you have one, you have the other.

A magnetic field in motion, crossing a wire, will generate an electric current in the wire. The basic idea for an electric generator.

To make the magnetic field stronger with an electric current, you form a coil with the wire. This way every time the current goes around a winding it makes a magnetic field. Then it goes around the next winding and the next adding to the strength of the magnetic field.

You can observe this if you wind a thin insulated wire (20 gauge) around a steel nail

several times. Then connect a 1.5 volt battery to the winding. The nail will become magnetized with a North pole on one side and a South pole on the other. You have just made an inductor.

Putting a steady direct current through an inductor will produce a steady magnetic field. What will happen when the electric current changes? A lot.

When you first connected the battery to the coil, for a quick instant the magnetic field was increasing. You could not detect it this way, but by building magnetic strength, an electric current was produced in the opposite direction, produced from the magnetic field building and crossing the wire coil. When you disconnect the electric current, it happens again.

This electric current induced in the opposite direction, opposes the current you initially put into the coil. This gives the affect of having resistance in the circuit.

To be able to detect this, you can put an alternating current into the coil. The continuously changing current will cause an opposite flowing current with every change. This will cause the current applied to the coil to reduce. This resistance is called Inductive Reactance

(XL). It is measured in ohms just like a resistor.

How much resistance will it produce?

It will depend on the design of the coil. It can be very little resistance, or enough resistance to almost completely cut off the current. A power transformer is an example of the latter.

Connecting a power transformer to a high voltage like 120 volts, with no load on the transformer, will draw very little current. However, if you measure the resistance across the transformer winding, it will only measure a few ohms. If you connect a direct current to the transformer, the current will go very high and most likely burn out the transformer.

There is much more to an Inductor and this will be in future articles.

73,

Ralph WD0EJA

May 2016

## SWR OR FORWARD AND REFLECTED POWER

Most operators use a SWR (Standing Wave Ratio) meter to monitor their antenna condition. However, some use a watt meter that measures forward and reflected power. What is the difference?

Analyzing the Standing Wave Ratio of an antenna system can get quite complex. However, for my sake we will keep it simple.

To try and put physical characteristics on SWR, imagine holding a rope that is tied to a fence post. Take the free end and move it up and down. Looking at it from the side, you will see the rope developing a wave on it. A bunch of lazy S's going down the rope. You will observe the wave moving from where you are oscillating the rope to where it is tied. When the wave reaches the end of the rope, the wave has to go somewhere. So it returns to you. This is called the reflected wave.

If enough of the wave is reflected back to you, what you see from the side is the wave going up and down, but not moving anywhere. It is like it is standing in one place going up and down. This is a Standing Wave. The amount of wave going away from you as compared to the reflected wave is your Standing Wave Ratio.

This can be measured by measuring the voltage or current on the transmission line. It is the same reading for either one. The direct reading on the scale of the meter displays the ratio or SWR.

This type of meter, if not a

cross needle, is calibrated to full scale on forward. Then the reflected is read normally by a switch on the meter to read the opposite phase of the RF wave.

The lower the ratio, the closer your antenna is to resonance and impedance match (normally 50 ohms).

However, what if you are using a watt meter? It reads forward and reflected POWER, not voltage or current. Does it read the same? No.

The scale on a watt meter is calibrated in wattage, not a ratio like the volt meter. So, what are you seeing?

There are ways to calculate forward and reflected power into SWR, but it can get quite involved. An easier way is by using a graph like the one below.

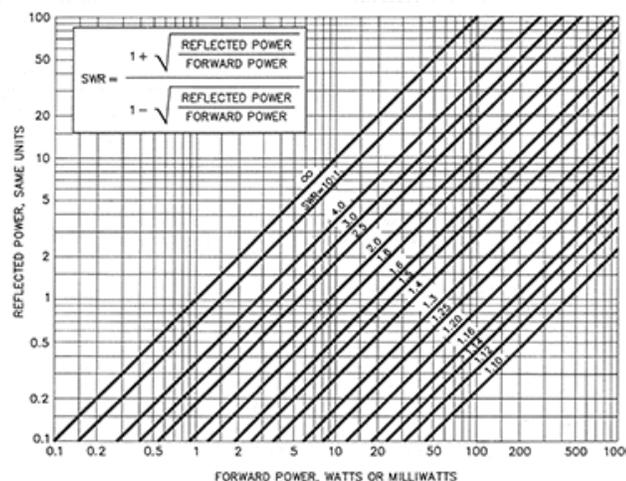
**Notice, that a forward power of 10 watts compared to 1 watt reflected equals a**

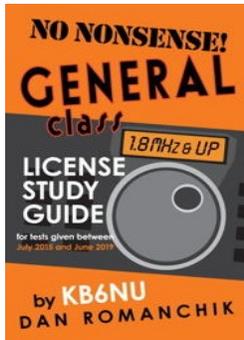
**SWR of about 1.9:1. If it was a voltage reading it would be 1.1:1. Therefore, if you are using a watt meter, you will need a much lower reflected power to have a lower SWR reading. For example, you would need a .1 watt reflected only to equal about a 1.23:1 SWR with 10 watts forward.**

Either instrument is important to use in your antenna line. Just keep in mind, if it is a watt meter you are using, the reflected power indicates a higher SWR than the voltage or current SWR meters.

73,  
Ralph WD0EJA

APRIL 2016





Updated for the General Class question pool soon taking effect

By: Dan KB6NU

*“... Blab is an interesting concept. It’s kind of like an interactive podcast. ...”*

## Why You Should Get Your Extra Class License

By Dan Romanchik, KB6NU

The Amateur Extra Class license is the highest class of license in the United States, and perhaps the world. Many hams—even hams that live outside the U.S.—aspire to pass the test and be awarded one.

There wasn’t always an Amateur Extra Class license. The Extra class license, as we know it today, was created as part of the 1951 license restructuring, that also created the Novice and Technician Class licenses. (In 1951, the Novice license was the “beginner’s license.” To get a Technician Class license, you had to pass the written test that General Class operators had to pass.)

Although it gave an operator no additional privileges, to get an Extra Class license, one had to:

- \* Pass a 20 wpm code test (Generals had to pass only a 13 wpm code test).

- \* Pass a longer and more difficult written examination than the General Class exam.

- \* Have at least two years of experience as a licensed radio amateur.

Today, without the code test and the experience requirement, many hams upgrade to Extra Class as soon as they can. Some even pass the Technician Class, General Class, and the Amateur Extra Class exams in a single test

session.

So, what’s the attraction? Why should you upgrade to Extra?

One of the reasons that you should upgrade to Extra is that you get use of the entire 80 m, 40 m, 20 m, and 15 m bands. Portions of those bands, such as 3.6 – 3.7 MHz in the 75m band and 14.150 – 14.175 Mhz in the 20m phone band, are reserved exclusively for Extra Class licensees. Extra Class operators also have exclusive privileges in the CW portions of the 80 m, 40 m, 20 m, and 15 m bands. These are the frequencies where the DX stations hang out.

Another reason to get your Extra Class license is that only Extra Class licensees can administer General Class and Extra Class license exams. General Class operators can become Volunteer Examiners (VEs), but they are only allowed to administer Technician Class exams.

Another reason you might want to get an Extra Class license is to get a fancy vanity callsign. Only Extra Class operators can apply for 1×2 or 2×1 callsigns, such as W8RP or KT8K. A short, snappy callsign can help you work more DX or improve your contest scores.

Whatever your reason, studying for the Extra Class exam will open your eyes to many aspects of the hobby that you may not be familiar with. And, as you work your way through the material, you’ll

learn things that make you a better amateur radio operator and enable you to enjoy the hobby more. It’s not easy, but in the end, an Extra Class license will help you have more fun with amateur radio.

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Dan, KB6NU is the author of the "No Nonsense" line of amateur radio license study guides, a prolific blogger ([www.kb6nu.com](http://www.kb6nu.com)), and an active CW operator in the Extra Class portion of the HF bands. If you have any comments, questions, compliments, or complaints, email him at [cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com).

## I'm EXTRA Ignorant

By Dan Romanchik, KB6NU

On Sunday, I received the following e-mail from a reader:

"Just wanted to let you know I passed the General exam using your study guide. It was very helpful. I am now generally ignorant whereas before I was only technically ignorant. Ha!"

My reply to him was:

"Well, if you're generally ignorant, I guess that makes me EXTRA ignorant!"

This isn't just a joke--being ignorant is part of the hobby. Amateur radio operators will always be ignorant about something or other. Even if you could master every facet of the hobby at some point in time, your mastery would be short-lived as the technology continued to advance.

Over the course of my amateur radio career, we've gone from equipment that primarily used vacuum tubes, to solid-state gear that first used discrete transistors and then integrated circuits, to software-defined radios. I could have, at some point, simply given up on the new technology and still enjoyed amateur radio. Some guys

do that, and that's OK. It is only a hobby after all.

I'm not one of those guys, though, and if you're not one of those guys, then you have to resign yourself to being ignorant. But, that's a good thing, as long as you realize that you're ignorant. Realizing that you're ignorant will spur you on to learn new things and accept new challenges.

Recently, I realized that I'm mostly ignorant about satellite operation. I know some of the basics from having read articles and writing about the topic in my study guides, but I have never made a contact using a satellite. I think that might be one of my next challenges. With the advent of CubeSat, there are many new satellites up in the air and many more opportunities to have interesting contacts.

So, what are you ignorant about? By that I mean, of course, what's going to be your next challenge in amateur radio?

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When he's not challenging himself with new things, Dan falls back on something he knows pretty well--operating CW. You'll find

him mainly on the 80m, 40m, and 30m bands. Dan is the author of the "No Nonsense" amateur radio license study guides, and blogs about amateur radio at KB6NU.Com, and you can contact him by e-mailing [cwgeek@kb6nu.com](mailto:cwgeek@kb6nu.com).



## VE Testing & Education—Colorado Springs (PPRAA)

Pikes Peak Radio Amateur Association (PPRAA)

### When:

Feb, Apr, Jun, Aug, Oct, Dec  
2nd Saturday at 9 AM

### Location:

C21 Library  
1175 Chapel Hills Dr,  
Colorado Springs, CO  
80920

Directions available at:

[ppraa.org/ve-testing](http://ppraa.org/ve-testing)

or contact:

Dennis Major

VE@PPRAA.org

Mike Anderson, WV7T does personal and small group training for all license classes.

Mike also does Morse code training.

Mike can be reached at:

719-229-8610

[wv7t@aol.com](mailto:wv7t@aol.com)



## VE Testing Woodland Park (MARC)

MOUNTAIN AMATEUR RADIO CLUB (MARC)

### When:

Jan, Mar, May, Jul, Sep, Nov  
1st Saturday at 10 AM

Location:

Woodland Park  
Woodland Park Library-  
Community Meeting RM  
218 East Midland Avenue

Directions:

<http://www.nx0g.org/ve.html>

or contact

Wes Wilson (KØHBZ)

[k0hbz@arrl.net](mailto:k0hbz@arrl.net)

Call (719) 687-8758



## Applicants will need the following items:

1. A valid PHOTO ID, driver's license preferred (if you do not have a valid photo ID, please call for alternative identification requirements).
  2. Your FRN or SOCIAL SECURITY NUMBER (now required - this includes children).
  3. Your CURRENT ORIGINAL amateur radio license (if any) and a PHOTOCOPY for the VE Team to keep.
  4. The CURRENT ORIGINAL CSCEs you have and a PHOTOCOPY for the VE Team to keep.
  5. Cash, Check or Money Order for \$15 (standard ARRL VE Fee). Checks and money orders should be made out to ARRL. This covers all exams you wish to take at this VE session.
- Teams, is to not allow same day retests on failed exams.
- PPRAA – Colorado Springs testing only:**  
Anyone passing their Technician Class examination at a PPRAA test session will receive a free year's membership to the Pikes Peak Radio Amateur Association
- NOTE: PPRAA and MARC VE Team policy, as with many VE**



Pikes Peak Radio Amateur Association, Inc.



# PPRAA HAM RADIO MEGAFEST



Saturday, July 9<sup>th</sup>, 2016



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



## ***Great Raffle Prizes!***

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

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

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

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

**Icom IC2730A mobile**  
with programming software from RT Systems

**Rig Expert AA54 antenna analyzer**

**MFJ 993 BRT remote antenna tuner**

**Alpha S9v43 fiberglass vertical antenna**

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

**Diamond X50A 2m/70cm 6' antenna**

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

## **Scheduled Activities:**

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

## **Many thanks to our sponsors:**

*Cheyenne Mountain Repeater Group*

*Ham Radio Outlet*

*RT Systems*

*Rocky Mountain Ham Radio*

## **Contact info:**

[Megafest@ppraa.org](mailto:Megafest@ppraa.org)  
<http://ppraa.org/megafest>

### 6-foot Table Rental

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

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

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

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ St \_\_\_\_\_ ZIP \_\_\_\_\_

Phone ( \_\_ ) \_\_\_\_\_ Call Sign \_\_\_\_\_

Email \_\_\_\_\_

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

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

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

Total Enclosed: \$ \_\_\_\_\_

Check box for registration confirmation via email

**Make checks payable to PPRAA**

**Mail completed form and payment to:**

PPRAA, PO Box 16521, Colorado Springs, CO 80935

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

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**PIKES PEAK RADIO  
AMATEUR  
ASSOCIATION**

Send membership application to:

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

**General Questions:**  
ppraa@ppraa.org

**ØBeat:**  
zerobeat@ppraa.org



**ppraa.org**

**Get Radio Active, get on the air!**

## Membership Application:

Date: \_\_\_ / \_\_\_ / \_\_\_ New Membership: Yes / No

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

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

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

Call: \_\_\_\_\_ Class: \_\_\_ Phone # (\_\_\_\_) \_\_\_\_\_

Email: \_\_\_\_\_

Are you a ARRL member: Yes / No

Additional Family Members:

Name1: \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_ ARRL Member: Yes / No

Name2: \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_ ARRL Member: Yes / No

Name3: \_\_\_\_\_ Call: \_\_\_\_\_ Class: \_\_\_ ARRL Member: Yes / No

\_\_\_ \$15.00 Full Member

\_\_\_ \$10.00 Full Member over 65

\_\_\_ \$18.00 Family Membership

\_\_\_ \$12.00 Family Membership over 65

\$\_\_\_ Membership Amount

\$\_\_\_ Scholarship Fund Donation

\$\_\_\_ PPRAA General Fund Donation

\$\_\_\_ Total

## 2015 Scholarship Fund

This last year the donations to PPRAA Scholarship Fund have been slipping.

The scholarship is for a hard science or math related field of study. Those fields of study are, or are similar to, Physics, Chemistry, Math, Electrical Engineering, Bio Engineering, etc.

There are many ways to make your tax deductible donation to this fund. Contributions may be made via:

⇒ [PPRAA website \(http://ppraa.org\)](http://ppraa.org)

⇒ Part of your membership renewal,

⇒ Club meetings and event.

⇒ Directly to the fund at:  
FAR Scholarship Committee  
P.O. Box 911  
Columbia, MD 21044

**Make checks to:  
PPRAA Scholarship**

## Ø- Beat Banner

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

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

If you would like to submit pictures for the Ø-Beat banner, please send them to:  
[zerobeat@ppraa.org](mailto:zerobeat@ppraa.org)

Please Include "[Ø-beat]" as part of the subject line.