

# Eastern Arizona Amateur Radio Society

EST. 1974

[www.eaars.com](http://www.eaars.com)

INC.



[facebook.com/groups/eaars](https://facebook.com/groups/eaars)

Club Address: EAARS, PO Box 398, Solomon, AZ 85551



*May, 2019*

## JOIN EAARS on Facebook

EAARS has a presence on Facebook and you are invited to **JOIN** the page. This is a great media to quickly share news, photos and events that are EAARS related or might be interesting to the members. If you utilize "Notifications" on the EAARS Facebook page, you can receive club updates AS THEY HAPPEN.

To reach the page, please visit **facebook.com/groups/eaars** and **JOIN** the page. You must have a Facebook account to be part of the EAARS group.



## EAARS Open Repeaters

**PL 141.3** unless noted otherwise

**Echolink:** 614350 **IRLP:** 7787

### **Heliograph Peak at Safford, AZ:**

146.860, 440.700 Linked

146.900, 447.8250 Not Linked

### **Jacks Peak at Silver City, NM:**

145.210 Linked

### **West Peak at Ft Thomas, AZ:**

145.350 Access to link to network

### **Pinal Peak at Globe, AZ:**

145.410 Linked

### **South Mt at Alpine, AZ:**

145.270 Linked

### **Caballo Mt at TorC, NM:**

145.470 Linked

### **Greens Peak at Show Low, AZ**

146.700 Linked

### **Little Florida at Deming, NM:**

147.060 Linked

### **Mule Mt at Bisbee, AZ:**

147.080 Linked

### **Mt Lemmon at Tucson, AZ**

147.160 Linked

### **Guthrie Peak at Clifton, AZ:**

147.280 Linked

# Gals on the Air!

**EST. June 2015**

Calling all Gals of any class ... Join us every Monday night for the  
**Gals Night Net @ 7:30 pm (AZ) on the EAARS system!**

## Upcoming Events

*Would You like to see your event posted for the membership to see?  
Email your information to [emberfire@cox.net](mailto:emberfire@cox.net).*

### 2019 Events

May 4 ..... March for Babies --- Angie N7EMB  
June 22-23.... Field Day  
Oct 20..... Making Strides Against Breast Cancer --- Angie N7EMB  
Nov 9..... Alzheimer's Walk --- Angie N7EMB

**Did you know that you can see the Public Service Opportunities on [soazhamservice.net](http://soazhamservice.net)? The events are posted by dates and who leads them. If you are interested in participating or have any questions, please feel free to contact them.**

### WEEKLY EAARS' NETS

**Every day:**

*Down Under Net - 4:15 am*

*Weather Net - 5:30 am*

*NTS Traffic Net - 6:30 pm*

**Sunday:**

*EAARS Net - 7:00 pm*

**Monday:**

*Gals Night Net - 7:30 pm*

**Wednesday:**

*Skywarn Net - During Monsoon, Every Wednesday at 7:30 pm,  
Off Season, every third Wednesday of month at 7:30 pm*

**Saturday:**

*ERC (Emergency Response Communications) Net -8:45 am ,  
2nd Saturday of the month (20-25 min duration)*

## Board Officers

President	Dave Wells	N7AM
Vice President	Dan Quaintance	AF7EF
Secretary/Treasurer	Larry Griggs	N5BG

## Staff

Site Trustee	Joe Montierth	K7JEM
Net Manager	Chris Buchanan	N7JND
Newsletter Editor	Angie Buchanan	N7EMB

## Net Control Operators

Rick	W8YBM	1st Sunday
Angie	N7EMB	2nd Sunday
Mike	W7IJ	3rd Sunday
Chris	N7JND	4th Sunday

# QSL Cards

The term QSL comes from the radio "Q" code meaning "I confirm reception", and purpose of a QSL card is to confirm a contact. The cards themselves are normally post card sized, many being colorful and very attractive. Quite a few have photographs of the ham radio station, the operator or the area in which he lives, and this makes them very interesting.

The idea for the QSL card dates back to the time when the first long distance amateur radio or ham radio contacts were being made on the short wave bands. Initially the ham radio stations exchanged letters to confirm a contact, but the idea for a pre-printed card soon arose. It is not certain which was the first QSL card, or the first station to use them, but the idea soon caught on.

Today ham radio operators send QSL cards for a variety of reasons. It is interesting to collect them. Having made contact with a particular ham radio station it is often nice to have a card from them to remember the contact. It may be a particularly interesting contact, or one with a rare country where few ham radio operators are active.



# New EAARS Members!

☆  
welcome

**totally**  
**awesome**

**KJ7ERO**    **Brennan**  
**AE6ZM**    **Wes**  
**KI7PTI**    **Bob**  
**N6RHH**    **Steve**

**KJ7FMV**    **Robert -husband**  
**KJ7FMU**    **Cindy - wife!!**



We believe a chunk of ICE fell down and broke the transmission line going to the link antenna. The road up Pinal finally cleared just a week ago. Dan AF7EF, Joe K7JEM, Larry N5BG made the trip for the repair.

Took few hours of driving to and from Pinal, but only a few minutes to repair. just the way it is.



*Thank you gentlemen for all you do! We appreciate you keeping our repeaters up and running! We appreciate your hard work!*

*Our membership dues at work!*



## **ARRL “Radio Communications” Billboard Promotes Ham Radio on I-40**

ARRL - 04/17/2019

A new billboard on Interstate 40 in Tennessee promotes ARRL and Amateur Radio. Working with ARRL Product Development Manager Bob Inderbitzen, NQ1R, and Communications Manager Dave Isgur, N1RSN, ARRL Graphic Designer Sue Fagan, KB1OKW, completed a design for a the new 10 × 20 billboard, owned by ARRL Life Member Cliff Segar, KD4GT. Segar says the average daily traffic count for the area along I-40 west bound, mile marker 336, is on the order of 6 million vehicles per year.



## **Honda Portable Generators Recalled Due to Potential Fire Hazard**

ARRL - 04/15/2019

American Honda has announced that it's voluntarily recalling some 200,000 of its portable generators sold in the US due to a potential fire and burn hazard. The recall includes the EU2200i, EU2200i Companion, and EB2200i generators. The US Consumer Product Safety Commission (CPSC) says the affected portable generators can leak gasoline from the fuel valve. Users should stop operating the recalled generator and contact an authorized Honda dealer for a free repair. Honda is also contacting users directly. For more information, visit the CPSC website. A similar recall has been issued in Canada.





The **Tucson Ham Radio Picnic** was a great success. Many of us Hams gathered on Saturday April 27th at Christopher Columbus Park for the Tucson Ham Radio Picnic in honor of Terry – KB5B (sk) who strongly believed that Hams should have an Eyeball QSO Picnic twice a year. So, he created the picnic to do just that. While he was alive, Terry and his wife Dee (also a Ham) made many of these picnics.



There was food and a lot of it. No one went away hungry. Thanks to everyone who brought something to share. It ALL was delicious. And to top it off, Don shared “That Wonderful See’s Candy” with everyone.

The setting was at the Christopher Columbus Park RC boat racing lake. It's pretty cool to see these boats race around the lake. Although it can be noisy, it's pretty fascinating to watch. No racing this weekend though. So, it was pretty quiet.

When Terry passed away, three people stepped up to the plate to carry the picnic on in his honor. Those 3 people are Don – KD7UIZ, Angie – N7EMB and Chris – N7JND. The one request that Terry asked for, was that the picnic was NEVER to be affiliated with any club what so ever. Although all Ham Radio Clubs are invited, the picnic will always remain a non-affiliated stand alone event.

Thanks to all who attended. All the photos were taken by John – WD7F (owner of the BART repeater, 146.940). Thank You John for doing this for us year after year. You are appreciated.

All the photos can be seen on the Tucson Ham Radio Picnic's Facebook page. If you are not a Facebook user, you can view them here... <http://WD7F.com/hampicnic04-19.htm>

Already looking forward to the next picnic which will take place in October at Reid Park. Watch for details on the Facebook Page and general announcements on various nets and newsletters.

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**Thank you, John WD7F for  
taking the pictures every year!  
You are Appreciated!**





# The G5RV Explanation

The G5RV antenna has been popular for many years, providing multi-band HF amateur radio operation.

The antenna was designed by Louis Varney, who held the amateur radio call sign, G5RV. The design was originally devised in 1946, but it was not until 1958 that it was published when it appeared in the July 1958 RSGB Bulletin.

Since then further notes appeared in RSGB Radio Communication in July 1984.

Over the years, the G5RV antenna has become a very popular form of antenna for many situations and several versions are commercially available, although it is relatively easy to make from wire, insulators and the feeder.

The G5RV antenna is an amateur radio center fed doublet with a symmetric resonant feeder line, which serves as impedance matcher for a 50Ω coax cable to the transceiver.

There are two implementations of the G5RV antenna. The first utilizes 34 feet (10.36 metres) of open wire feeder, whilst the second uses any convenient length of open wire feeder which is connected directly to an antenna matching tuning unit.

The G5RV antenna that transitions directly to 75 Ω twin cable or coax is probably the more popular. However when using this option it is best to incorporate a balun in the circuit. Also the transmitter will need to have a suitable tuning capability or external tuning unit by the transmitter to ensure that it can match the antenna. Although it is meant to offer a reasonable load, the actual load on some frequencies is most likely to fall outside the range of the transmitter itself.

Although the G5RV antenna with 31 feet / 10.36 metres of open wire before transitioning to twin or coax is a convenient option, another solution is to use an antenna tuning unit.

The original G5RV antenna design included the circuit for a suitable tuning unit, although there are many tuning units that are able to provide a good match. It is necessary to ensure that there is a balanced to unbalanced transition, i.e. a balun is used.

The antenna tuning matching unit provides two functions. One is to match the impedance because like any antenna, it will not give an exact match.

The second is to provide the balanced to unbalanced transition.

Probably the best option is to use the antenna with an external or remote tuner unit and then the run through any building can be coaxial cable with a low VSWR.

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## G5RV antenna operation

The G5RV antenna operates over a wide band and is able to provide a reasonable match on most of the amateur radio bands. The antenna was originally designed in 1946 when the number of bands was much less than it is now. In fact it was designed to meet the needs of the then bands: 80 meters, 40 meters, 20 meters and 10 meters. At this time, even 15 meters was not an allocated amateur radio band.

In view of the number of different bands on which the antenna operates, the way in which it works is slightly different, i.e. the number of wavelengths in each section and hence its performance.

**3.5 MHz, 80 metres:** On 80 metres the G5RV antenna uses the flat top as well as about 5 metres of the matching section to form a half wave dipole. As a result it presents a reactive load at its input.

**7 MHz, 40 metres:** On 40 metres the G5RV antenna operates using the top section plus nearly 5 metres of the matching section and it operates as a partially folded col-linear array with two half waves in phase. Again the antenna presents a reactive load to any transmitter at its input.

**10 MHz, 30 metres:** On this band the G5RV operates as two half waves in phase and as a result it presents a very reactive load at the input.

**14 MHz, 20 metres:** This is said to be the band for which the antenna was originally designed. It operates as a  $3\lambda/2$  dipole and presents a resistive load of about  $90\ \Omega$  at its input. This provided a good match to the  $75\ \Omega$  coax that was widely used at the time.

**18 MHz, 17 metres:** The G5RV performs as two in phase full wave antennas which extend slightly into the feeder section. The antenna is slightly reactive, but presents a high impedance in view of the top section being fed at a high voltage point.

**21 MHz, 15 metres:** The antenna performs as as a  $5\lambda/2$  antenna. As it represents an odd number of wavelengths it is fed at a current node and it is only slightly reactive.

**24 MHz, 12 metres:** The G5RV performs as a slightly long  $5\lambda/2$  antenna and as such it is slightly reactive, but the overall impedance is not too high.

**28 MHz, 10 metres:** The antenna acts as tow  $3\lambda/2$  sections fed in phase. It gives a high impedance load which is slightly reactive.

The antenna is very much a compromise and it presents a variety of different loads to the transmitter. Whilst this may have been acceptable in the days of vacuum tubes / valves when it was designed, modern semiconductor PAs do not like this variety of loads and an antenna tuning unit must be used in terms of radiation, the G5RV antenna provides performance almost equivalent to a dipole on 80 and 40 meters. On 20 meters the extended length means that the radiation lobes provide a lower angle of radiation in some direction and therefore it can favor long distance signals in the direction of the lobes as these will tend to arrive at a low angle.

You now know a little more about the G5RV antenna. It's a great antenna for field operation. Many are used at Field Day and other events and has proven to work great. The G5RV is one of those Love/Hate antennas. But installed correctly, they have been proven over and over to work as a very decent antenna.



# Other Club Stuff

**RST holds FREE VE testing on the following dates, 7:00 pm at Hardesty Mid- Town Police Building, 1100 S Alvernon, Tuson.**

13-May-2019  
10-Jun-2019  
08-Jul-2019  
12-Aug-2019  
09-Sep-2019  
14-Oct-2019  
11-Nov-2019  
09-Dec-2019

Update RST Days in The Park - AE7YC, Ed Wilson, KD4JLZ Don Emble  
Upcoming Days in The Park Events

Jan 12, 2019	Gene C. Reid Park 900 S. Randolph Way 10 AM to 2 PM Talk in on 146.520 FM
Feb 16, 2019	John F. Kennedy Park 3700 S. Mission Road 10 AM to 2 PM Talk in on 146.520 FM
Mar 16 2019	Jacobe Park 3300 N. Fairway Avenue 10 AM to 2 PM Talk in on 146.520 FM
Apr 27 2019	Christopher Columbus Park 4300 N. Silverbell Road Ramada #2 10 AM to 2 PM Talk in on 146.520 FM
May 19 2019	Gene C. Reid Park 900 S. Randolph Way 10 AM to 2 PM Talk in on 146.520 FM
June 15 2018	Moms K. Udell Park 7200 E. Tanque Verde Road 10 AM to 2 PM Talk in on 146.520 FM
Jul 13 2019	AMPHI Neighborhood Park 510 E. Navajo Road 10 AM to 2 PM Talk in on 146.520 FM
Aug 17 2018	Jacobe Park 3300 N. Fairway Avenue 10 AM to 2 PM Talk in on 146.520 FM
Sep 14 2019	Moms K. Udell Park 7200 E. Tanque Verde Road 10 AM to 2 PM Talk in on 146.520 FM
Oct 12 2019	AMPHI Neighborhood Park 510 E. Navajo Road 10 AM to 2 PM Talk in on 146.520 FM

**The Cochise Amateur Radio Association**  
2756 S Moson Rd, Sierra Vista, Arizona 85650



Presents The

## Cochise Hamfest

and

*7th Area Communications Exercise*

**SATURDAY, MAY 4th 2019**



**FREE PARKING AND ADMISSION: Hamfest Gate Opens at 0700**  
**AMATEUR RADIO LICENSE TESTING: 0900 to 1100**

**PRIZE DRAWING @ 1200 NOON TALK IN: 146.76(-) PL 162.2**  
**TAILGATING - \$5, INSIDE TABLES - \$10**



**First Prize: ICOM IC-718 HF Radio**  
**2<sup>nd</sup> Prize: Icom ID-51A Plus 2 D-Star HT**  
**3<sup>rd</sup> Prize: MFJ 4230MV 30 A Switching PS**

Local Sierra Vista Accommodations and Shopping within 15 minutes of Hamfest Site

VISIT US ON THE WEB AT <http://www.k7rdg.org>

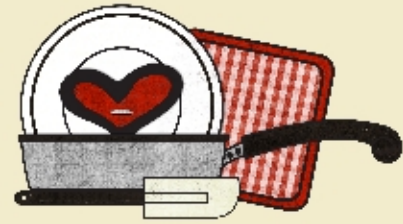
For More Info Contact: K4AFN/Charles: (520) 508-7087 or [k4afn@arrl.net](mailto:k4afn@arrl.net)

**See You There!!!**

**Do you have any club news to share?**  
**It can be posted on this page.**  
**Send your info to Angie - [emberfire@cox.net](mailto:emberfire@cox.net).**



Cooking up  
Some Magic



## Camping Recipes

As we start planning for our Field Day Camping Days, I thought I would share some camping recipes so y'all would eat like home! Nothing like cooking out in nature! Enjoy the next few months of camping recipes and hope you get to use them while you are camping.

# Campfire Chicken Pot Pie

Recipe By: DANN0719

"I looked all over the internet for a campfire chicken pot pie recipe using canned biscuits for the crust. I couldn't find one, so I came up with my own recipe."



### Ingredients

2 (29 ounce) cans mixed vegetables (with potatoes)  
1 (10.75 ounce) can cream of chicken soup  
1 (10.75 ounce) can cream of mushroom soup

Prep: 10 m  
Cook: 45 m  
Ready In 55 m

2 large cooked chicken breasts, cut into cubes  
1 (10 ounce) can refrigerated biscuit dough

### Directions

Stir vegetables, chicken soup, mushroom soup, and chicken cubes together in a Dutch oven with a flat lid.

Cook over campfire coals until warmed through but not boiling, about 15 minutes.

Arrange biscuit dough segments in a layer atop the vegetable mixture. Put lid on the Dutch oven and carefully arrange some hot coals atop the lid. Heat until the biscuits are cooked through, 15 to 30 minutes.

kiss the  
cook