

# Eastern Arizona Amateur Radio Society

EST. 1974

INC.

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

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

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



*September, 2017*

## 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](https://facebook.com/groups/eaars) and **JOIN** the page. You must have a Facebook account to be part of the EAARS group.



Welcome New EAARS Members!

Ken K7EAZ  
Brandon KI7OTB

AWESOME

## New Call Sign!

Mark KI7FDD changed to W7GMO  
Richard KF5SR changed to K7ZZ  
Congrats!

## 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

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# Gals on the Air!

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

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## 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).*

- Sept 15-17 . . . ARRL SW Division Convention - Torrance, CA
- Sept 16 . . . EAARS Picnic - Safford, AZ
- Oct 8 . . . Tucson Ham Picnic - Reid Park
- Oct 22 . . . Making Strides Against Breast Cancer - Tucson, AZ
- Oct 29 . . . COPAFEST 2017 ARRL State Conv - Maricopa, AZ
- Nov 11 . . . ORO Valley ARC Hamfest - Marana, AZ
- Nov 18 . . . HARKFEST Tailgate Hamfest - Congress, AZ

**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 second 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)*

# 2016 Officers and Staff

## 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	KE7EDP	1st Sunday
Angie	N7EMB	2nd Sunday
Mike	W7IJ	3rd Sunday
Chris	N7JND	4th Sunday

## LAST CALL!!

Announcing the annual EAARS picnic, to be held at Discovery Park in Safford on Saturday September 16th, 2017 starting at 2:00 pm. As has been the policy of EAARS over the past few years, this picnic is for current paid up EAARS members ONLY and immediate family, IE spouse/child. You should know whether or not you are a current member. If any questions in this regard, just ask. Thank you all for your understanding.

EAARS will be furnishing the meat and drinks. We will also provide paper plates and plastic utensils. We suggest however that you bring your own utensils for easier cutting of the meat. If you desire to bring something to share, such as salad, desert, etc that will be fine.

The picnic will be by RSVP. Please email your intentions to attend no later than Thursday, September 7th to Larry N5BG. (reply to this email will work) Please, in your RSVP indicate your callsign, name and number in your party.

Email: lgriggs@aznex.net Note we require this lead time for placing the order for the food.

Looking forward to seeing some of you.

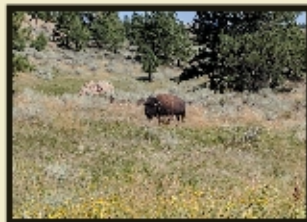
73, Larry N5BG eaars secy/treas

# Arizona Near Space Research Solar Eclipse Adventure

As part of the Arizona Near Space Research team, I was able to attend the 2017 Solar Eclipse. ANSR started planning for this in November of 2015, by contacting the Glendo State Park in Wyoming. We were able to obtain very nice camping sites overlooking the lake and away from most of the crowds. Embry-Riddle Aeronautical University and Arizona State University had teams of students with their payloads as part of our team. In addition two young ladies, one of them a reporter for a newspaper in Copenhagen joined us for the launch after traveling from Denmark. One of the payloads that was being launched was to provide live video streaming to NASA from near space of the earth as the Eclipse traveled across our country. Our team was one of 55 different college teams launching weather balloons with payloads to provide the video streaming to NASA. Some of the other payloads included two APRS beacons and one CW beacon per balloon, a payload from Central Arkansas college measuring solar radiation during the eclipse, and a cross band repeater that we used to track the balloons and communicate between the launch team, ground station and recovery teams.

After we arrived and got our camp setup on Friday, we started looking at possible launch sites. The ground station was to be located at our camp site and the balloon payloads needed to be above 60,000 feet when they crossed over the the ground station to provide the optimal position for the tracking antennas. A location was plotted and on Saturday four members of our team went to survey site and access to it. Upon arriving at the coordinates, it was discovered that a Boy Scout camp was located there and we would have an audience of approximately 400 Boy Scouts and their families for our launch. On our way back to our campsite we turned around a curve and found a bison staring at us. We stopped our vehicle and everyone took pictures,. On Sunday Google maps was showing an alternate route to the launch site so we went to check that out. It turned out the first route was much better so we took that to return to camp and this time instead of seeing just one bison, we came upon a heard of approximately 300 grazing on both sides of the road out.

**Continued on  
page 5.**



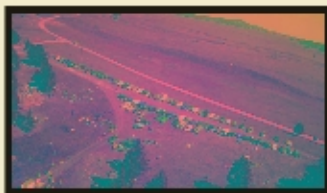
# Arizona Near Space Research Solar Eclipse Adventure

**Continued from page 4**

The balloons were launched on Monday slightly later than planned because after we arrived at the launch site, I discovered that I had left the helium regulators back at camp. We were able to get the regulators and get the balloons launched about 15 minutes later than we wanted to. The second balloon was launched 12 minutes later, which is the first time we have been able to launch two balloons so close together. Both balloons traveled to over 100,000 feet before bursting and after some hiking by our recovery teams all payloads were recovered.

Unfortunately the video streaming payload did not work, but the students were able to share pictures with NASA that taken during the flight and uploaded to the internet. It was later discovered that the modem had failed to power up prior to launch and recorded video was later sent to NASA. The video streaming payload made use of the ham radio frequencies and similar equipment to what the AREDN networks use. Our return to camp was delayed by the large amount of traffic trying to return to Colorado after the launch. I heard that I-25 south from Casper, WY to Denver was stop and go from about noon until 9 pm that afternoon. Unfortunately I was not able to take any pictures on launch day and can only share a picture someone else took at launch. The other pictures are of the bison and the two travelers from Denmark.

73,  
Bill K7WWN



Here are links to some videos on YouTube from the ground station:

(just copy the link and paste on your browser)

[https://youtu.be/ZskdSL\\_4SSE](https://youtu.be/ZskdSL_4SSE)

<https://youtu.be/txzXS7vicc>

# ARRL NEWS

## **Arizona Ham-Call License Plate Fees Rebate**

Our Governor, Doug Ducey has signed the **License Plate Reimbursement Bill**. Beginning on July 1 Arizona Hams will begin receiving \$17 of each \$25 we pay to the State of Arizona for Amateur Plates each year. The money goes to ARCA (The Amateur Radio Council of Arizona), and will be used to benefit the clubs and individual Hams of the state. If your club does not belong to ARCA, now would be the time to join ARCA.

For further detail see: [http://www.arca-az.org/image\\_files/pdf\\_files/azlicenseaction.pdf](http://www.arca-az.org/image_files/pdf_files/azlicenseaction.pdf)

## **15 September Southwest Division HAMCON**

The ARRL Southwest Division is holding this years' convention on Sept 15 to 17 in Torrance Calif. This Years' Convention theme is "Ham Radio for Everyone" and includes a full range of talks and exhibitions on equipment, operations, public service, Dxing, and much more. There is an extensive list of prizes and events, and there will be a W1AW/6 Special-Event station in operation. The Swap meet will be on Sunday the 17th, and a special tour of the Battleship USS Iowa including a Catered dinner in the Officers' wardroom is being offered on Friday afternoon and evening. For complete Convention details, registration, and hotel bookings, logon to: WWW.HAMCONINC.ORG

## **28 October Copafest 2017 ARRL Arizona State Convention**

Hosted by the Maricopa Amateur Radio Association will be held at the UltraStar at Ak-Chin Circle in Maricopa. Admission \$5.00. Swap Meet, Free VE Testing, Educational Seminars, Raffle Prizes and more. For info, visit the web site at [www.copahams.org](http://www.copahams.org) or email to: [info@copahams.org](mailto:info@copahams.org)

## **11 November Oro Valley ARC Hamfest**

Hosted by the Oro Valley Amateur Radio Club at Marana Middle School, 11285 W Grier Road, Marana, AZ. Gates are open at 7:00 AM (5:00 AM for sellers) and close at 1:00 PM. General Admission: \$5.00 - Under 12 years old free with paid adult. Seller Admission: \$10.00 per space and includes seller admission. Veterans Day Ceremony, Multiple Raffle Prizes, Breakfast and Lunch Available. VE Testing, QSL Card Checking, Seminars. For more information visit the web site at [orovalleyarchamfest.com](http://orovalleyarchamfest.com) or contact Steve, W1SR at [w1sr@arrl.net](mailto:w1sr@arrl.net)

## **18 November HARKFEST Tailgate Hamfest**

Hosted by the Hassayampa Amateur Radio Klub at the North Ranch Escapees RV Park, 30625 S Hwy 89, Congress, AZ. Free Admission, Free Tailgate Sites (Pre-Registration Required - [djgrooms@yahoo.com](mailto:djgrooms@yahoo.com)). Overnight Camping (Full Hook-Up or Dry) Available (pre-registration required for camping at [www.escapees.com/parking/congress](http://www.escapees.com/parking/congress)) Tailgating permitted at campsite. VE Testing - Prizes, Arts & Crafts Show 9 AM - 2 PM and Lunch at Activity Center

# ARRL NEWS - continued

## **ARRL Radiosport Department Debuts New Honor Roll, Top of Honor Roll Plaques**

08/18/2017 The ARRL Radiosport department has unveiled two newly designed plaques for the coveted DXCC Honor Roll and Top of Honor Roll awards.

“These plaques feature a stunning graphic of the Earth transitioning toward sunset as viewed from space. After explaining grayline propagation to our graphic artist, Sue Fagan, KB1OKW, we think she really captured the concept with her design,” said ARRL Radiosport Manager Norm Fusaro, W3IZ.

To qualify for Honor Roll status, you must have a total confirmed DXCC entity count that places you among the numerical top 10 of current DXCC entities on the DXCC List. For example, if there are 339 current DXCC entities, you must have at least 330 confirmed. Deleted entities do not count toward the DXCC Honor Roll. To qualify for Top of Honor Roll (No. 1 Honor Roll), you must have confirmed two-way contacts with all 339 current entities on the DXCC List.

With the upcoming DXpedition to Bouvet Island in February 2018, the Radiosport Department anticipates that many DXers will cross that threshold to attain Honor Roll or Top of Honor Roll status.

The new-design plaque may be ordered online by new DXCC Honor Roll members or by current Honor Roll members who would like to update their awards. ARRL still has some legacy plaques in stock. These will be made available while the supply lasts. Because these are custom-engraved awards please allow up to 6 weeks for delivery.

### **The Doctor Will See You Now!**

08/17/2017 “S-Units” is the topic of the the latest episode of the “ARRL The Doctor is In” podcast. Listen...and learn!

Sponsored by DX Engineering, “ARRL The Doctor is In” is an informative discussion of all things technical. Listen on your computer, tablet, or smartphone -- whenever and wherever you like!

Every 2 weeks, your host, QST Editor-in-Chief Steve Ford, WB8IMY, and the Doctor himself, Joel Hallas, W1ZR, will discuss a broad range of technical topics. You can also e-mail your questions to [doctor@arrl.org](mailto:doctor@arrl.org), and the Doctor may answer them in a future podcast.

Enjoy “ARRL The Doctor is In” on Apple iTunes, or by using your iPhone or iPad podcast app (just search for “ARRL The Doctor is In”). You can also listen online at Blubrry, or at Stitcher (free registration required, or browse the site as a guest) and through the free Stitcher app for iOS, Kindle, or Android devices. If you’ve never listened to a podcast before, download our beginner’s guide.

## Hams Pulling Together On Tower Deployment

When a mountain top tower goes down for whatever reason, there always seems to be a group to get together and put it back up. When the tower went down at Henry's site, a group of Hams got together (organized by Dave - AC7DS) and started to go to work putting it back together. With only the top section to go, the professional tower climbers along with a professional ground crew, just about has this one all wrapped up.

I got to go up on the 3rd week and watch the team do what they love to do. Assemble a tower. I've watched many towers go up and I still find it fascinating to watch good team work. The safety measures that were taken, were top notch. Between hard hats, correct footwear, to climbing gear, to all PPE (Personal Protection Equipment), everything is just being done the proper way without any shortcuts.

The final trip will be in September to finish this project off. Then Henry can populate the tower and the airwaves will once again, be covering our city of Tucson and beyond.

Thanks for a job well done and thanks to ALL that pulled together and made this project happen.

73

Chris - N7JND





## Got Something Ham Related For Sale?

Got a radio for sale? Maybe an amp, antenna, tuner or even a 1 foot length of RG-58 coax that's all weather beaten. YES, I mean even radio JUNK!!! Then the EAARS Facebook page is your place to list it. The EAARS Facebook page has a special place to list your radio stuff for sale. Anyone that subscribes to the page, will see the For-Sale post. And we are nearing 100 people so far in the group.

You must be a member of the EAARS Facebook page to see the listings and to post to the section. This also means you must have a Facebook account. Sorry, can't get around that.

If you would like to see what people have for sale in the EAARS Facebook page FOR SALE section, just watch your notifications (Make sure Notifications are turned on for the EAARS group). If you would like to post to the EAARS Facebook Page For-Sale section, just become a member of the EAARS Facebook page by going to [www.facebook.com/groups/EAARS](http://www.facebook.com/groups/EAARS) and select JOIN. Once you are a member of the page, simply do the following...

Where you would normally write a post, go to the right where it says MORE and select "Sell Something". Click on this and you will be prompted to input what you are selling, the price, your zip code and a description of your item. You can also add photos to show what you are selling. After you enter your information, simply hit POST and all members of the EAARS Facebook group will get notified you have something for sale. Pretty slick huh? But please remember, ONE ITEM PER ENTRY. Multiple items on one entry will be deleted and you will be asked to re-enter your items one at a time.

Enjoy this feature and please keep it radio related. That's any type of radio related items. YES!!!! Even CB's are ok. Have fun with this feature and make a little money while at it.

# 2017 Solar Eclipse

On Aug. 21, 2017, skies darkened from Oregon to South Carolina in the first total solar eclipse visible from coast to coast across the United States in 99 years. Here is some information from **Space.com**. It includes the latest amazing photos.

**What is a total solar eclipse?** - A total solar eclipse occurs when the disk of the moon appears to completely cover the disk of the sun in the sky. The fact that total solar eclipses occur at all is a quirk of cosmic geometry. The moon orbits an average of 239,000 miles (385,000 kilometers) from Earth — just the right distance to seem the same size in the sky as the much-larger sun. However, these heavenly bodies line up only about once every 18 months.

Outside the path of totality, skywatchers in the continental U.S. and other nearby areas saw a partial solar eclipse, in which the moon appears to take a bite out of the sun's disk. Two to five solar eclipses occur each year on average, but total solar eclipses happen just once every 18 months or so.

**What will I see during a total solar eclipse?** - During a total solar eclipse, the disk of the moon blocks out the last sliver of light from the sun, and the sun's outer atmosphere, the corona, becomes visible. The corona is far from an indistinct haze; skywatchers report seeing great jets and ribbons of light, twisting and curling out into the sky.

"It brings people to tears," Rick Fienberg, a spokesperson for the American Astronomical Society (AAS), told Space.com of the experience. "It makes people's jaw drop."

During totality, the area inside the moon's shadow is cloaked in twilight — a very strange feeling to experience in the middle of the day. Just before and just after totality, observers can see this cloak of darkness moving toward them across the landscape, and then moving away.

These effects are not visible during a partial solar eclipse, so skywatchers are encouraged to see if they are inside the path of totality during the total eclipse.

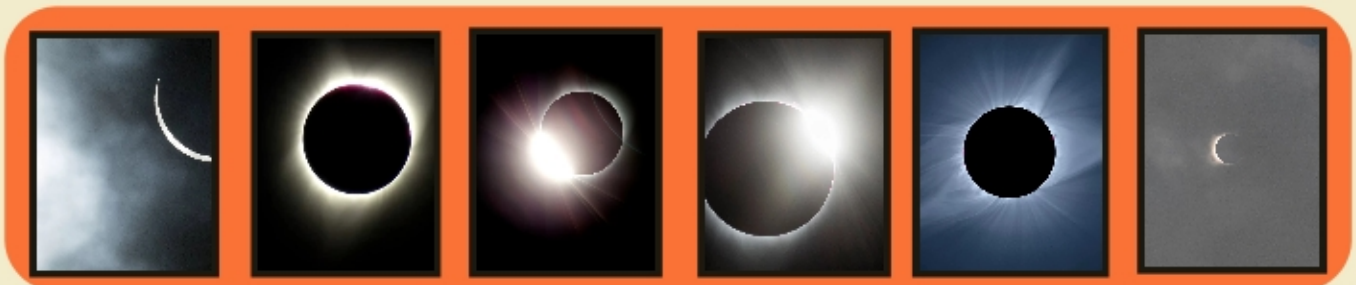
**Where will the total solar eclipse be visible?** - The path of totality for the Aug. 21, 2017, total solar eclipse is about 70 miles wide and stretches from Oregon to South Carolina. It passes through Idaho, Wyoming, Nebraska, Kansas, Missouri, Illinois, Kentucky, Tennessee, Georgia, North Carolina and South Carolina.

You can also check out our state-by-state guide to find out which major cities and prime locations fell inside the path of totality.

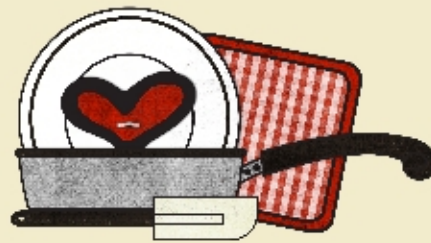
**When will the total solar eclipse occur, and how long will it last?** - The timing of the total solar eclipse and its duration both depend on where you are inside the path of totality.

At most, the moon will completely cover the disk of the sun for 2 minutes and 40 seconds. That's about how long totality will last for observers positioned anywhere along the center of the path of totality. As you move toward the edge of the path, the duration of totality will decrease. People standing at the very edge of the path may observe totality for only a few seconds.

If you missed this event, don't fret, another will occur in 7 years!



Cooking up  
Some Magic



## Lemon Zucchini Bars



### Ingredients:

1 1/4 cups white sugar  
1 cup vegetable oil  
3 eggs  
2 teaspoons lemon zest  
1/4 cup fresh lemon juice  
1 3/4 cups grated zucchini

2 cups all-purpose flour  
1/4 teaspoon baking powder  
2 teaspoons baking soda  
1 teaspoon salt  
1 cup chopped walnuts  
1/3 cup confectioners' sugar for decoration

### Directions:

1. Preheat oven to 350 degrees F (175 degrees C). Grease a 9x13-inch baking pan.
2. In a large bowl, combine sugar, oil, eggs, lemon rind, and lemon juice; mix well. Stir in shredded zucchini.
3. In another bowl, combine flour, baking powder, baking soda, and salt. Gradually add this mixture to the zucchini mixture. Stir until thoroughly combined; mix in the walnuts.
4. Pour batter into prepared pan and bake until a tester inserted in the center comes out clean, 35 to 45 minutes. Cool. Sprinkle cake with sifted confectioners' sugar and cut into bars.
5. Sprinkle top with sifted confectioners' sugar and cut into bars.

kiss the  
COOK

A horizontal row of ten small, colorful dots in the following order: yellow, light blue, pink, orange, brown, yellow, light blue, pink, orange, brown.