

Eastern Arizona Amateur Radio Society

EST. 1974

www.eaars.com

INC.



facebook.com/groups/eaars

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



November, 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.*

2019 Events

Nov 9..... Alzheimer's Walk ---- Angie N7EMB
Nov 9 Colossal-Vail 50/50 ---- Greg W9GRG
Nov 9 OVARC Hamfest
Nov 23 El Tour ---- Cary WB2BSJ
Dec 1 Vail Mountain Bike Event ---- Greg W9GRG
Dec 7 Tucson Marathon ---- Mike W7IJ

Did you know that you can see the Public Service Opportunities on 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)*

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

All of us from EAARS would like to wish You and yours a



New EAARS Members!

Vincent KI7PTW



totally
awesome

JOTA Report 2019

On Saturday October 19th, 2019, WN7BSA volunteers kicked off the largest council hosted 2019 Jamboree on the Air (JOTA) with a US flag ceremony at the Double-V Scout Ranch south of Tucson, AZ. The flag ceremony was conducted by one of the many Cub Scout units attending the event and was immediately followed by the CBS Columbia Orchestra playing the National Anthem, by transcription.

Our expectations were met with about 140 Cub Scouts and 85 Scouts attending and bringing along many of their parents. The total crowd was estimated at 300 or more.

Our volunteers operated two on-the-air HF radio stations, three 2-meter stations, and one 33-centimeter UHF station. Only a few contacts were made on 20-meters, but 40-meters was fairly active. VHF and UHF contacts through local repeaters made up the deficit but the real "star" was DSTAR through the KR7ST repeater in Sahuarita. The VHF and UHF stations were primarily operated by Garrett, KG7DXH and Chris, KJ7DSX. Bill, AE7YQ and Jim, AC7JM hosted the HF stations.

We had a DMR setup that depended on a "hot-spot" to hit the JOTA Talk-Group. We had some issues with keeping the hot-spot going. We learned a lot about DMR so maybe better luck next year.

The Catalina Council and WN7BSA JOTA volunteers kept the interest of everyone by conducting several simultaneous events.

Jason, KI7BGQ and Dan, KJ7JFE moderating two different hands-on test equipment demos where scouts got to use oscilloscopes to view various audio waveforms and their own voice pattern. Each scout also used an audio oscillator to make some pretty horrific sounds. One of the setups included a Theremin. Talk about too much fun!

An old-time radio event featured vacuum tube radios and stereo amplifiers from the past as well as grandpa's or grandma's first transistor radio from when they were in high school. Scouts learned about vinyl records, the early years of rock and roll, the popularity of radio, and the world famous great vacuum tube giveaway. The youngsters, much to the chagrin of their parents, took home hundreds of vacuum tubes.

Scouts helped other scouts (scouts teaching scouts) with practicing their soldering skills by soldering some copper wires together and desoldering some components from printed circuit boards. Sean, KG7RHH and Chris, KJ7DXI kept that activity smokin'.

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JOTA Report 2019 - Continued

Continued From Page 4

The "Desert Falcon" a.k.a. Randy, KE7KDQ, conducted a roving hidden transmitter hunt.

This popular event scout patrols into two groups, the "Hunter" and the "Fox". It was very popular again this year.

No radio event is complete without a Morse Code event. This year's event was moderated by Dave, K6KYP, and Dave, KR7DH. Patrols were split into two groups. One group attempted to send a message to the other group using Morse code. We used low-power 10-meter transceivers. The groups were not be in sight of each other. What a circus!

But wait . . . there's more. This year the WN7BSA instigators added a "take it apart" activity where scouts got to take apart old electronic equipment like old Tektronix oscilloscopes, signal generators, 80-pound frequency counters, etc. Tyler and Carl, two Scouts, kept the "boat anchors" flowing.

During the day, Catalina Council volunteers kept the BB Gun and Archery Ranges open for the Cub Scouts. The Lion and Tiger Cubs also got to play with "slime" and soap carving projects.

Last but not least was our STEM astronomy events. During the morning hours a solar telescope operated by Jim Knoll of the Tucson Amateur Astronomical Association (TAAA) was very popular showing off the sun in hydrogen-alpha light. Around 6 PM the TAAA conducted an evening star party that lasted well into the night. The star party kicked off with a lecture by noted astro-story teller James O'Connor about how the indigenous people of the American Southwest saw the night sky.

JOTA 2020 is already in the planning stage. More events and activities are in the plan.

73,
Joe K3TYE



Arizona Club Takes Advantage of Low Bands to Support 100-Mile Endurance Run

ARRL - 10/24/2019

The Coconino Amateur Radio Club (CARC) provided safety and coordination communications for the 100-mile Stagecoach Line Run over the September 21 – 22 weekend. This endurance run from Flagstaff to the Grand Canyon takes place every September. The 31-hour event pushes runners to the limit. The Stagecoach Line Run also tests Amateur Radio's capabilities and requires planning and commitment. Because of the geographical coverage required, the club's Amateur Radio support even took advantage of 160 meters, not a band typically associated with public service communication.

"Because we are in a solar minimum, a combination of bands and communication methods were required in order to track and maintain contact with the numerous stations," said Dan Shearer, N7YIQ, the club's Public Information Officer. "What worked well at 3 o'clock in the afternoon was not going to work at 2 in the morning." The club's communication infrastructure required a combination of HF and VHF/UHF equipment that included setting up portable repeaters and stations powered by generators and other power sources.

"When you add in the cold weather of the high desert in September and the possibility of rain and snow, this becomes a test of what Amateur Radio may be called upon to do to support a disaster somewhere in the nation," Shearer said.

CARC members invested more than 300 hours of their time in planning and supporting the race, helped by a few additional volunteers from Glendale and Prescott. Nineteen club members staffed eight sites, where volunteers set up camps and kept vigil through the night to track and make sure runners were accounted for throughout the race.

In addition to tracking runners into and out of each aid station, net control entered these times into an online spreadsheet as they progressed through the race, allowing runners to be located easily in case they did not make it to the next checkpoint.

During the event, CARC members helped locate two missing runners and helped save the life of another who developed severe asthma. Medical care and treatment during these types of extreme events poses a significant challenge, as EMS responses are delayed. "Much of the area between Flagstaff and the Grand Canyon is US Forest Service land, and travel through these areas by vehicles is slow," Shearer explained. Severe emergencies can only be handled by aircraft, if conditions permit."

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Arizona Club Takes Advantage of Low Bands - Continued

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During the race, 75 meters worked well during the day, but 160 meters was put into play after dark. Cross-band repeaters were placed at remote sites to allow access to existing repeaters. Although VHF and UHF were used, these links at times became unusable, and alternate forms and bands were required to maintain contact.

The Coconino Amateur Radio Club is an ARRL-affiliated club with about 50 members. It has a large ARES component that trains regularly and conducts SKYWARN and ARES® nets weekly.

Lynyrd Skynyrd Founding Member Larry Junstrom, K4EB, SK

ARRL - 10/08/2019

Southern Rocker Larry "LJ" Junstrom, K4EB, died on October 6. He was reported to be 70.



Junstrom was a founding member and bassist of Lynyrd Skynyrd, although he left the group before it recorded its first album. He's better known as a member of another Southern Rock band, 38 Special, with which he performed from 1977 until retiring in 2014.

"The Big Man on the Big Bass has left us," said a statement on the 38 Special website. "He rocked arenas all over the world and succeeded in living his dream. He was truly one of a kind, a congenial traveling companion and a great friend to all with a humorous slant on life that always kept our spirits high — a kind man with a big heart for everyone who crossed his path."

Licensed in 1962 as WN2LKF, later becoming WA4LKF, he was a regular attendee of Orlando HamCation. Junstrom was inactive in Amateur Radio during his busy years on the road but picked up Amateur Radio again in 1990 and became an avid DXer with 347 entities in mixed DXCC. He was a frequent check-in to the Musicians' Net on 40 meters. After retirement, Junstrom worked in real estate in north-central Florida.

So Now What? Podcast

ARRL - 10/17/2019

"Ham Lingo" will be the focus of the new (October 17) episode of the So Now What? podcast for Amateur Radio newcomers.

If you're a newly licensed Amateur Radio operator, chances are you have lots of questions. This biweekly podcast has answers! So Now What? offers insights from those who've been just where you are now. New episodes will be posted every other Thursday, alternating new-episode weeks with the ARRL The Doctor is In podcast.

So Now What? is sponsored by LDG Electronics, a family owned and operated business with laboratories in southern Maryland that offers a wide array of antenna tuners and other Amateur Radio products.

ARRL Communications Content Producer Michelle Patnode, W3MVP, and ARRL Station Manager Joe Carcia, NJ1Q, co-host the podcast. Presented as a lively conversation, with Patnode representing newer hams and Carcia the veteran operators, the podcast will explore questions that newer hams may have and the issues that keep participants from staying active in the hobby. Some episodes will feature guests to answer questions on specific topic areas.

Listeners can find So Now What? on Apple iTunes, Blubrry, Stitcher (free registration required, or browse the site as a guest) and through the free Stitcher app for iOS, Kindle, or Android devices. Episodes will be archived on the ARRL



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Podcast

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SO NOW WHAT?

The logo features a green sine wave on a black background with a grid. Below the wave is a diamond-shaped circuit symbol containing the letters A, R, L, and L.

Grounding Your Outdoor Antenna

The National Electrical Code requires that All Outdoor Antennas be Grounded. When in doubt you should consult your electrician or a professional antenna installer for help. Follow Manufacturer's instructions for all parts of your install and any modifications you make should be reviewed. Normally you do not need a permit to perform this work because the system is low voltage but your area may have some restrictions on Tower Height and the methods you can use to mount your antenna to your home. Always defer to these source over any recommendation provided here.

There are two areas of your antenna that should be grounded externally to your home. The mast or tower that the antenna sits on and then the transmission or coax cable attached to the antenna must be fed through a grounding block.

When installing ground wires use the thickness specified by your manufacture. General sizes for ground wires are 8agw or 10agw copper wire with no splices. That means you will need two wires for your antenna. Ground wire should not take sharp turns of more than 90 degrees.

A ground pole will need to be inserted in the ground so you can attach these wires to it. Ground poles or Ground Rods can be purchased at an electrical supply center or home store. Never shorten the ground rod because it is difficult to hammer into the ground. The ground rod must be deep enough to discharge any voltage.

To Ground the mast of the antenna follow the manufacturer's instructions on where to attach the ground wire. Insulated offsets should be screwed into your wall to make sure the ground wire sits away from your home as it travels to the ground. Using a Wire Mounting Bracket fasten the ground wire to your ground rod tightly.

Grounding your antenna transmission line. Using an Antenna Discharge Unit you will feed a short piece of coax cable to this unit from your antenna and then mount it to your wall as instructed. A rubber block might not be a bad idea to place between the discharge unit and your home. Run your coax wire that is entering your home to the other side of the discharge unit. As you did with your mast you will need to run a single wire to your ground rod using insulated standoffs. Do not simply attach or splice it to your mast wire.

Using a Surge Protector in your home to protect against transmission line spikes is also important. Normally people that install roof mount or tower TV antennas will require an amplifier and that amplifier will require a DC Power Supply that sends low voltage up the transmission wire to the preamplifier at the antenna. The easiest way to accomplish installing surge protection is to attach your transmission line to a surge protector that has a coax mount. Follow Manufacturer's directions on how you should attach the transmission line to the surge protector. You may need to place your DC Power Inserter on the Antenna Side of the connection to your surge protector as it might not allow power to be sent through it.

Final Note

As you were reading you probably saw that I was referring to Manufacturer's Instructions and Electrical Codes. These instructions are important for the safety of your home and equipment. The information that is provided in this how to is simply a starting point for your tasks and should not be considered a reference for actual install.

These three areas of lightning and surge protection are very important for antennas that are external to your home.

Once you do the job there is little or no maintenance involved so do it right the first time and you can forget about it except when you are doing normal review of your system for function and safety.

Communication and Team Work

Working community events can be a fun event to participate in but they can have their challenges. Sometimes changes happen within an organization and sometimes that information is not communicated all the way down to the communications team on hand. Yes, the key word to success is "Communication!"

Planning events have their challenges as there are many aspects to the planning a public community event; from the venue, workers, volunteers, street shut downs, hiring officers, etc. When we organize a Communication Team, we can only go with the information that is given to us.

When arriving to the day of the event, you find out the course has been changed but you weren't notified! What? Yes, a slight panic kicks in but then you remember, you are working with Ham Radio professionals! Again, communication kicks in! Yes, some ham operators may need to reposition at the last minute but they find the spot that works for them to keep our community safe.

What I love about the communications teams I build are that they love radio and they love their community! With that, you can make anything work. So if we have any last minute issues, I know my team will have it covered in no time!

If you are ever interested in helping out in community events, just let me know! They are very easy and self-rewarding. If you are a little nervous, you can always be teamed up with someone until you are more comfortable taking on the position.

To those who have continuously volunteered their precious time for my events, I THANK YOU! I hope I let you know how much I appreciate your time and your dedication to our community! After all, it is OUR community!

See you at an event!

Angie N7EMB
emberfire@cox.net
EAARS Newsletter Editor
VP of AZ Sun Bums Radio Club



Other Club Stuff

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

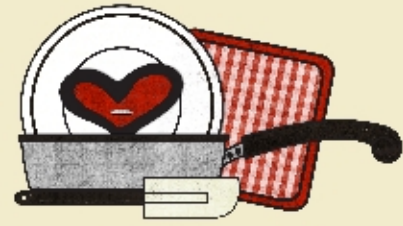
11-Nov-2019

09-Dec-2019

The Kachina Amateur Radio Club is sponsoring a two-day review class to assist those planning to test for their Technician License on 7 December 2019. The first half of the review will be held on Saturday, November 30, 2019 from 8am to noon. The second half will be on Sunday, December 1, 2019 from noon to 5pm. The review sessions will be conducted at the Solterra Senior Center, 5408 Hwy. 260 (White Mountain Blvd), Lakeside, AZ. The Laurel VE Team, WM-VET, will be conducting license testing on Saturday, 7 December 2019, at 9:00 AM at that same location. Walk-Ins are welcomed, however, pre- registration is preferred. You can email the team at VEtesting@cableone.net to pre-register. Please include your name (the exact name used to create your FRN, if you have an FRN), license call (if you have one), and which license exam you wish to take. An acknowledgement will be emailed back to you. At the test session, the following will be required: A government issued photo ID, your FCC Registration Number (FRN) if you have one OR your social security number, the original and a copy of any passed exam element credit (CSCE), and a copy of your current license if upgrading. The test session begins at 9:00 AM.

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

Cooking up
Some Magic



Sausage-Stuffed Mushrooms

Prep: 15 min

Cook: 1 hr 15 min

Total: 1 hr 30 min

Yield: 6 to 8 servings



Ingredients

16 extra-large white mushrooms
5 tablespoons good olive oil, divided
2 1/2 tablespoons Marsala wine or medium sherry
3/4 pound sweet Italian sausage, removed from the casings
6 scallions, white and green parts, minced
2 garlic cloves minced
2/3 cup panko crumbs
5 ounces mascarpone cheese, preferably from Italy
1/3 cup freshly grated Parmesan
2 1/2 tablespoons minced fresh parsley leaves
Salt and freshly ground black pepper

Directions

Preheat the oven to 325 degrees F.

Remove the stems from the mushrooms and chop them finely. Set aside. Place the mushroom caps in a shallow bowl and toss with 3 tablespoons of the olive oil and Marsala. Set aside.

Heat the remaining 2 tablespoons olive oil in a medium skillet over medium heat. Add the sausage, crumbling it with the back of a wooden spoon. Cook the sausage for 8 to 10 minutes, stirring frequently, until it's completely browned. Add the chopped mushroom stems and cook for 3 more minutes. Stir in the scallions and garlic and cook for another 2 to 3 minutes, stirring occasionally. Add the panko crumbs, stirring to combine evenly with all the other ingredients. Finally, swirl in the mascarpone and continue cooking until the mascarpone has melted and made the sausage mixture creamy. Off the heat, stir in the Parmesan, parsley, and season with salt and pepper, to taste. Cool slightly.

Fill each mushroom generously with the sausage mixture. Arrange the mushrooms in a baking dish large enough to hold all the mushrooms in a snug single layer. Bake until the stuffing for 50 minutes, until the stuffing is browned and crusty.

kiss the
cook