



Yavapai Signal

The Yavapai Amateur Radio Club – Prescott, Arizona – DM-34 – Volume 30 – No. 12 – Dec. 2015



Upcoming Club Events				
Event:	Date:	Time:	Place:	Contact/Info:
General Meeting	12/03/15	1900 MST	PMHMS	Club Website
Fox Hunt	12/06/15	1300 MST	AZ CU Parking Lot, GG Wy & WC Rd	Pete K6VVR or John WB9VGJ
New and Beginning Ham Session	12/11/15	1800 MST	Jeep Posse Bldg.	Frank K8FB
Operating Open House	12/18/15	1800 MST	Jeep Posse Bldg.	Frank K8FB
Technician Class Practice Test	01/05/16	1800 MST	Jeep Posse Bldg.	David W7BJ
License Tests	01/09/16	0900 MST	Jeep Posse Bldg.	Don WB7TPH

Welcome to the Yavapai Amateur Radio Club

The Yavapai Amateur Radio Club (YARC) is an ARRL affiliate Special Service Club. The club participates in many activities in the quad-city (Prescott, Prescott Valley, Chino Valley, and Dewey-Humboldt) area by providing communications for local events, emergency communications, and promotion of the hobby throughout the community.

Membership in YARC is open to any interested amateur or non-amateur alike. Dues are \$20.00 per year (full-time students \$15). YARC meets at 1900 MST on the first Thursday of every month in the technology classroom at Prescott Mile High Middle School, 300 South Granite Street in Prescott. Vehicular access to the school parking lot is via the entry at the intersection of South Montezuma Street and Carleton Street. Programs of interest are included as part of the meeting.

www.w7yrc.org

YAVAPAI AMATEUR RADIO CLUB – PO BOX 11994 – PRESCOTT AZ 86304-1994

Club Nets

Band	Mode	Frequency	PL	Night	Time
2M	FM	147.260 MHz	+103.5 Hz	Wednesday	1900 MST
2M	SSB (USB)	144.220 MHz	N/A	Wednesday	2000 MST
10M	SSB (USB)	28.440 MHz +/- QRM	N/A	Thursday	2000 MST
1¼M	FM	224.080 MHz	-156.7 Hz	Wednesday	1830 MST

Yavapai County ARES/RACES Nets

2M	FM	147.260 MHz	+103.5 Hz	Monday	1830 MST
2M	FM	145.290 MHz	-127.3 Hz	Monday	1900 MST

Club Repeater

2M	FM	146.880 MHz	-100.0 Hz	Open Use 24/7	Open Use 24/7
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Club Mentors ("Elmers")

Name	Call Sign	Telephone Number
Art Protas	KG6AY	928-227-2954
Jim Zimmerman	N6KZ	928-713-0542

Club Website Registration

Please register to get on the club's email distribution list and also gain access to the members'-only area of the website. The members'-only area contains the club roster and detailed club treasurer's reports. To register, go to www.w7yrc.org, click "Join Us" and then select "Registration." Fill out the requested information, and then click "Register." The webmaster will then verify your membership and authorize your account. His response is not immediate in real time.



From the President's Desk ...

447.650 MHz Repeater Anticipation

We finally received approval from the Amateur Radio Council of Arizona (ARCA) repeater council to install our new Yaesu System Fusion DR-1 repeater on Mt. Union. The repeater will transmit using call sign W7YRC on 447.650 MHz (-) with a PL tone of 100 Hz. Hopefully by the time that you read this, the repeater will be installed and operating. As the weather can turn quite cold and treacherous on top of Mt. Union at this time of year, the installation could be delayed until the weather gets warmer. However, Pete K6VVR, with the assistance of other club members, is working to complete the installation as soon as possible.

We have obtained an omni-directional 6 dB gain vertical antenna to install on an existing tower. Pete has everything else that he needs in his possession and has been trying out the repeater at his house with 5 watts output. The plan is to initially run the transmitter at 20 watts (medium power). The repeater can run as much as 50 watts output, but it is unknown when this power will be run.

The repeater will initially be set up to only run the FM mode. When Pete can determine that the repeater is stable and is not causing any interference to existing services in the area, he will determine a good time to turn on the C4FM digital mode. When this happens, we will notify the membership.

During our initial break-in period, my advice is to be patient and let us know of any concerns you have or problems that you encounter. I am confident that we will be able to work things out. It will be great for our club to finally have a repeater that has good coverage for nearly all of our members.

73 – Frank Bender, K8FB

YARC:	Badges	Patches	Shirts
Features:	Name & Call	Club Name & Logo	With or Without Name & Call
Contact Person(s):	Dan Simpson AE7IH or Erica Simpson KF7MAU	David Hanson W7BJ	Pete Morrison K6VVR
Cost:	\$7.00 each	\$3.00 each	Without Name & Call \$20.00 each — With Name & Call \$24.00 each

New Members

The following new YARC members were voted in at the November 5, 2015 general meeting. Please introduce yourself to them and make them feel welcome:

- Richard Press KG6ZOQ
- Dale Pelzer KL7R – Dale's XYL is Christie NL7DU.



W7BJ

TREASURER'S REPORT		General	Repeater
October 2015		Fund	Fund
CASH – September 30, 2015		\$8,153.11	\$2,917.42
	Dues	\$234.00	\$26.00
	Ham Test Online	\$45.00	
	Donation		\$100.00
	50/50 Raffle	\$41.00	
	Misc. < \$50	\$1.00	\$0.08
	TOTAL INCOME	\$321.00	\$126.08
	Club Station Build	\$110.09	
	Club Station Computer	\$222.88	
	MFJ-259 Repair	\$83.16	
	Misc. < \$75	\$78.27	
	TOTAL EXPENSES	\$494.40	\$0.00
CASH – October 31, 2015		\$7,979.71	\$3,043.50
** Detailed statements are posted on www.w7yrc.org			

Agenda for the October 29, 2015 Board of Director's Meeting

Present at meeting: KCØTGG, KF7YZJ, KV8TD, W6TYV, N7NGM, K8FB.

Meeting called to order by K8FB at 1800 MST.

Old Business:

September Treasurer's report published (balance \$8,153.11; repeater \$2,917.42). October board and general meeting minutes published. Board discussed desire to limit expenditures for the rest of the year, as much as possible, to build up the balance.

Man/Horse Race event – Jeep Posse indicated that they wanted make a donation to YARC for our help with the race. The amount is unknown at this time. Depending on the amount of the donation, a donation to ARES/RACES would be made. ARES/RACES has been very generous over the years in supporting YARC public service events, particularly with the use of the MARC van.

K8FB spoke at the Jeep Posse business meeting on October 15, 2015 relating to our view of the Man/Horse race and our partnership with the Jeep Posse. The YARC board unanimously agreed to make known to the Jeep Posse next year that we do not expect a donation.

W6TYV reported that the new Jeep Posse communications vehicle (CCV) is being set up and will have padded headphones to reduce ambient noise. Bandpass filters to be looked into to eliminate interference to both the Jeep Posse and YARC by the other when operating in the CCV. It was suggested that this setup be tested before the next joint event to ensure the problems are reduced or eliminated.

Club Station Update:

- Two October Newbie sessions – 25 newbies in one, 23 newbies in the other
- Two October Open Houses – 3 members at one, other scheduled for October 30
- Ordered and received a new PC to replace old one that needed mother board replacement. The board unanimously approved purchase of the PC (\$222.88) and the WebRoot antivirus program (\$19.98).
- Plan to be ready for Nov. 4th ARES/RACES exercise using RMS Express with HF Winmor and the new PC
- Club station usage – From 8/5 to 9/17 (first completed sign-in sheet). Usage for this period: 22 hours and 50 minutes.

Elmer Group:

As announced in October meeting, N7CW has resigned from the Elmer Group due to demands of the ARES/RACES DEC position. Bud will still help out as able. Elmer group is now N6KZ and KG6AY, with others helping out or being considered.

Alternate Meeting Place Contingency Plan:

Possibilities: Las Fuentes, Old Armory (city owns), Marriot, PV Library. Board to investigate.

YARC Party:

Major prize discussion. Tom WN7E came up with the suggestion of FT8800R (2M/440 dual-band mobile transceiver (HRO list price of \$369.95) and Kenwood TM-D710G (2M/440 transceiver APRS/TNC GPS/EchoLink ready with built-in GPS (HRO list price of \$589.95). The board voted to only have one prize, the FT8800R, to be raffled at the banquet. Will have to go to the membership for approval for grand prizes. K8FB plans to ask for authorization at the December membership meeting meeting.

440 MHz ARCA Repeater Application –

ARCA 440 MHz coordination rep indicated that the application had never been received by them. This despite feedback from Jeff Hanna that the first requested frequency pair had been rejected and second pair should be okay. Application was resubmitted (copy of first application sent) on 10/13/15 via

email. 440 MHz rep confirmed he received app and was working on it.

November General Meeting:

- Lloyd Halgunseth Memorial Month. Members to wear blue ARES/RACES shirt or a blue shirt. N7CW to speak about Lloyd's legacy. Public Service Ham of the Year being awarded to Pattii Halgunseth, KD7VBG.
 - November election – review of ballot and election process at November meeting. KCØTGG and KF7YZJ will pass out ballots at the door to licensed members.
 - November Program – SIG break outs. Field Day is a new SIG headed by W7BJ.
- NRA Birthday – November 17. Special event station at Gunsite. CW station (led by N6KZ) at the club station. Budget authorization for food will be requested by KB7TRE at the November meeting.
- MFJ – 259 Repaired – The MFJ-259 Antenna Analyzer donated by K6VVR has been repaired. The analyzer can be borrowed from the Elmer Group - N6KZ or KG6AY.

New Business:

Club Liability Insurance – ARRL Insurance only protects our members and officers from being sued by non-members or non-participants. Limits: \$2,000,000 per year and \$1,000,000 per occurrence, with \$10,000 per person medical expenses paid immediately (only for non-participants). Incidents to members or event participants are only covered by their own insurance. This apparently is not the message given to members in the past. Suggestion: Liability disclaimer to be signed by public service event participants. Event organizers do not normally offer insurance and Prescott Road Rally requests individual participants to sign liability waivers. K8FB to discuss further with N7CW and KD7VBG regarding member notice or liability waiver recommendation and report to the board.

Member Email List – MS Excel, CSV file posted to members-only website section.

Technician Practice Exam – November 3, 2015 at 1800 MST at the Jeep Posse Building. Prepared and led by W7BJ.

License Exam Session – November 7, 2015 at 0900 MST at the Jeep Posse building. Followed at 1030 MST by a VE refresher session led by WB7TPH.

JOTA – KB7TRE, W7BJ, and W1DGL assisted on October 16, 2015 at PMHMS. About 20 people associated with a Cub Scout den attended.

Paul Compton – W6TYV reports his email account not restored. K8FB to resend email to W6TYV.

Suggestion from a member: Signal Editor dues to be deferred during service. Board unanimously agreed to defer editor's dues in the manner other dues are deferred while the editor serves the club.

Discussion item – KV8TD suggested that next year's board consider the purchase of a small travel trailer for use as an operating position for field day and other events. Estimated cost would be in the neighborhood of \$1500.

The 2015 Field Day results have been published. W7YRC and N6KZ (GOTA station) results were 2412 points.

Equipment Loan – K8FB reported that two Kenwood VHF transceivers and the refurbished MFJ 259 antenna analyzer are available for loan to members. Details are posted on the club website.

Adjournment: K8FB adjourned the meeting at _1940_ hrs.
Respectfully submitted by Frank Bender K8FB, YARC president

Yavapai Amateur Radio Club - General Meeting Minutes

Date: November 5, 2015

Call to order at 1900 MST. Pledge of Allegiance.

Welcome visitors – Jim N6DHz is moving to the area from California.

Lloyd Halgunseth WA6ZZJ Remembrance - Bud N7CW provided a brief background of Lloyd's activities as District Emergency Coordinator and also provided recollections as a colleague and friend of Lloyd's. The WA6ZZJ Remembrance Video from 2015 Whiskey Row Marathon, which was taken and provided by John WB9VGJ, was also played. A moment of silence in remembrance of Lloyd was also led by Bud. A \$50 donation to the ARRL Public Service department is being made in Lloyd's memory.

Mary AB7NK presented the 2015 Lloyd Halgunseth WA6ZZJ Memorial Award to Patti Halgunseth, KD7VBG for all of her assistance with public service events in the area over the years. Patti even participated in area ARES/RACES nets and public service events when she was living and working in the Phoenix area. Congratulations go to Patti from all of us.

October meeting minutes and September treasurer report: Motion to accept by KJ6KMK. Seconded by W1DGL. They were accepted by unanimous voice vote.

New Members: Dale Pelzer KL7R and Richard Press KG6ZOQ were accepted as new members and introduced themselves to the club. Motion to accept them was made by WB9VGJ and seconded by K6VVR. They were accepted unanimously by voice vote.

November Nominations and Election - Don, WB7TPH, nominations chair person, submitted the ballot nominations for 2016.

- VP – N9JYO;
- Secretary – N7NGM
- Board – W6TYV, KA5DWI, N7HVC, KE7SA, W7PVA, K7DCT

Kathy KJ6KMK was nominated for Secretary as a write-in candidate. Motion to accept the ballot as amended was made by KD7VBG and seconded by K7POF. Ballots were distributed to all licensed members at the door by Secretary KCØTGG. Ballots were collected at the break and counted by board members who were not candidates in the election. The results were announced after the break – see the bottom of the minutes for the election results.

Committee Reports:

NRA Birthday - November 17, John WB9VGJ beginning at 0800 MST at Gunsite using borrowed call sign K7NRA. N6KZ and AE7CG will operate a CW station using K7NRA at the club station beginning at 0800 MST as well. KB7TRE requested a donation by the club in the amount of \$70 to cover food at the event. The membership unanimously voted this expenditure by voice vote.

YARC Event Communications, Patti KD7VBG:

- Prescott Road Rally was discussed
- Man/Horse Race was discussed by K8FB

Patches and badges, Dave W7BJ and Dan AE7IH. Shirts, Pete K6VVR.

Club Repeater, Pete K6VVR announced that ARC has granted conditional approval of our 440 MHz repeater on Mt. Union using 447.650 MHz (-) using 100 Hz PL. Pete is working to get the repeater installed before winter weather halts installation.

Fox Hunt, Pete K6VVR, John WB9VGJ – 1300 MST on Sunday, November 8. WH6EAL is hiding the transmitter this month.

Elmer, Jim N6KZ – reported on the antenna installations this past month and upcoming antenna and tower installations.

School Amateur Club, Terry KB7TRE

VE, Don WB7TPH – Testing on November 7, 2015. W7BJ held practice tests on November 3, 2015.

Club Station - Frank K8FB – since August, over 60 hours of club station usage has been logged. Two newbie ham sessions were held with 48 hams or prospective hams participating in the two events.

YARC Party - Tom WN7E – Jan 23, 2016. 2016 is the 25th anniversary of the founding of YARC. The Board is considering major prizes. Will come to membership for authorization in December meeting.

New Business:

Refreshments – Many thanks to Erika, K17JZ for supplying the treats for the meeting this evening.

Equipment Loan - Recently repaired MFJ 296 Antenna Analyzer now available.

The 2015 Field Day results have been published. W7YRC and N6KZ (GOTA station) results were 2412 points.

Break

50-50 Raffle Winner, Jack AI1K \$72.00

Election Results announced by K8FB:

- VP - John Stevens N9JYO
- Secretary - Kathy Laing, KJ6KMK
- Board Members (3) - Randy Dashiell W6TYV; Bill Noe W7PVA; Chuck Zapalla KE7SA.

Program - Special Interest Group (SIG) breakout canceled due to lack of remaining time.
Adjournment: 2033 MST.

December 5, 2015 General Meeting Program: “Having Fun with VHF/UHF Propagation”

Art Jackson, KA5DWI will be giving his presentation “Having Fun with VHF/UHF Propagation” at the December 5, 2015 general meeting. See what is possible with communications on these bands



YARC Party – January 23, 2016

Mark your calendars for the YARC party on January 23, 2016 at the StoneRidge Grill in Prescott Valley. We will also be celebrating the 25th anniversary of the founding of YARC at this event. We hope to be able to raffle some major prizes. Dinner is again \$22 per person. Submit your dinner reservations by going to the club’s web site at “Events” and then select “W7YRC Party”. Tom Griswold - WN7E and Gail Griswold - K7YTI are again hosting this event this year.

2016 Election Results

Congratulations to the following officers and board members who were elected to their posts effective at the beginning of 2016:

- Vice President – John Stevens, N9JYO
- Secretary – Kathy Laing, KJ6KMK
- Board Members:
 - Randy Dashiell, W6TYV (re-elected)
 - Bill Noe, W7PVA and
 - Chuck Zappala, KE7SA.

These new officers and board members join the remaining officers and board member for 2016:

- President - Frank Bender, K8FB
- Treasurer - David Hanson, W7BJ
- Past President Board Member – Don Bauer, WB7TPH

Retiring as officers and board members at the end of the year are the following. We appreciate all of their service during their terms:

- Vice President – Rex Mauldin, N7NGM
- Board member – Doug Freeman, KV8TD and
- Board member – Doug Meyer, KF7YZJ.

Thanks to everyone who volunteered to be on the ballot this year. We appreciate all of the officers volunteering their time to support the club. As always, let any officer or board member know of any suggestions or concerns that you might have regarding how to improve the club.

For Sale — Crank-up Tower and 6-element HF Tri-band Beam Antenna

HDX-55 Crank-up tower with tilt-over base and raising fixture. KT34XA 10/15/20 meter 6-element beam.
\$1200.00 OBO — Call Neil – K7SEN at 928-775-2158.

For Sale : Icom R71A Receiver

Originally sold for \$1021 at HRO. In excellent condition. Includes 10M FM receiver board and memory saver board installed. Asking \$230. Contact Walter Loesche WF7J at 928-910-2256.

For Sale by Rob Robinson

- One 40 ft. MK40 tubular tower (If purchased on the Internet the price would be \$900-\$1,000)
 - One Yaesu Rotor - G450A or better (not sure - the G450A sells for \$275 on the Internet)
 - Mosley MP-33 3-element 10, 15, 20 Meter antenna (18-8 & 300 series Stainless Steel, 1500 watt- new EBay price - \$150)
 - Make an offer on any items or if sold as a total package - Asking \$1,100 (Cost if purchased new - over \$1,450)
- Contact Rob Robinson at rbpo@cableone.net or phone 928-710-7410.

Lloyd Halgunseth - WA6ZZJ Memorial Award Recipient
by Mary Vince - AB7NK

Patti Halgunseth KD7VBG received a standing ovation at the November 2015 YARC club meeting as she approached the podium when her name was called as recipient of the Lloyd Halgunseth WA6ZZJ Memorial Award. The current District Emergency Coordinator and ARES/RACES Radio Officer, Bud N7CW, spoke of past memories working with Lloyd. A short video which was taken at the 2015 Whiskey Row Marathon (provided by John Broughton WB9VGJ) was shown in which the announcer paid tribute to Lloyd WA6ZZJ. He referred to Lloyd as "THE MAN IN THE VAN" and now it would be "THE WOMAN IN THE VAN" since Patti KD7VBG has taken over all public service event scheduling for the Yavapai Amateur Radio Club (YARC).

Before presenting the award, Mary AB7NK touched on some of the history with YARC's long standing relationship with ARES/RACES. Lloyd was an extremely dedicated and committed individual. At the bottom of his weekly newsletters sent to ARES/RACES members, and also with each email sent out by Lloyd, the following was listed on the bottom:

"Amateur Radio is a Hobby...Emergency Communications is a Commitment..."

When it comes to commitment, Patti was always in the forefront. She was a member of YARC and Yavapai County ARES/RACES before she had firmly established residence in the county. On Monday evenings Patti could be heard checking into the Yavapai County ARES/RACES net using a homebrew Yagi tape measure antenna that was clipped to the balcony of her apartment in Maricopa County. When an individual schedules vacation and personal days around planned events they are definitely committed.

Patti is the Eastern Emergency Coordinator and Assistant Radio Officer for Yavapai County ARES/RACES as well as the Public Service Event Coordinator for the Yavapai Amateur Radio Club.

Congratulations on a job well done!



Patti KD7VBG



Patti KD7VBG accepting the WA6ZZJ Memorial Award at the November 5, 2015 YARC General Meeting (Photo taken by Bob Sitterly K7POF)

Club Station Update

There has been a lot going on at the Jeep Posse building club station lately. Since we began logging usage at the station in August, the club has logged over 60 hours of usage of the building. We have had license practice exams, license exams, new and beginning ham sessions, operating open houses, station operations, and participation in the November 4th ARES exercise.

We now have a Signalink USB installed and integrated with our HF transceiver to use on digital modes. We can operate most of the digital modes, including the more popular ones such as RTTY, PSK31, and JT65. We even operated HF Winmor (RMS Express) in the November 4 ARES exercise, sending and receiving simulated emergency email messages that were sent from our HF radio to HF internet gateways, mostly in California. The simulated emergency was an earthquake which cut off all internet connectivity to our area. The HF Winmor capability allows emails to be sent from local emergency personnel to people outside of our area who still have internet service.

Our new and beginning ham sessions that we hold a couple of Friday evenings each month have been a great success. In the two October sessions we had 25 and 23 newbies attend. Jo, KF7WOT did a great job instructing people how to use their Baofeng and Yaesu handhelds. Jo was assisted by her husband, Terry KG7BAM, who was a great help in assisting people with questions and issues with their handhelds. The November 13 newbie session had 17 new and beginning hams attend. We practiced using our handhelds on simplex. Relevant topics were discussed and questions were answered. Thanks to N6KZ, KG6AY, W1DGL, W7BJ, and W7PVA for supporting these sessions.

Newbie and open house sessions will be limited during December, due to the holidays. Look at the announcements on the home page and the calendar on the website for notices about upcoming sessions and operating open houses that occur on Friday evenings. Come to an operating open house and we can demonstrate some of the digital modes for you, such as RTTY, PSK31, and JT65.

W1DGL has loaded the CHIRP program on the club station PC. Next time you come by the club station, bring your programming cable and we can load your handheld (if it is compatible with the CHIRP program) with the ARES recommended VHF and UHF frequencies.

Upcoming License Testing

Date	City	Location	Time	Sponsor	Contact	Walk-in
11/28/15	Phoenix	American Red Cross, 4747 N. 22 St.	1900 MST	Arizona ARC	Gary Hamman 602-996-8148	No
12/07/15	Sun City	St. Clement Church, 15800 Del Webb Bl.	2000 MST	West Valley ARC	Joe Cutitta 623-215-2226	Yes
12/12/15	Flagstaff	North Country Healthcare, 2920 N. 4 th St.	0900 MST	Coconino ARC	Rod Martin 928-527-1139	Yes
01/09/16	Prescott	Jeep Posse Bldg., 1200 Commerce Dr.	0900 MST	Yavapai ARC	Don Bauer 928-775-4690	Yes

License Testing — by Don Bauer WB7TPH

On November 7, 2015, members of your VE team tested 29 individuals for new or upgraded licenses. I am pleased to report that everyone passed and that the licenses have been issued by the FCC. We now have 21 new Technician licensees, 7 Generals and 1 Extra class licensee. Congratulations to all. And I want to thank our intrepid VEs for a job well done. Serving at the session were: Mike Belanger W1DGL, John Stevens N9JYO, Frank Johnson NØSCA, Dave Hanson W7BJ, Ralph Gendron W7HAM, Bob Sitterley K7POF, Linda Sitterley W7POF, Dick Hughes W6CCD, Kathy Laing KJ6KMK, Dean Sheeley W7DWS, Bob Smith WB6ODR, and Jim Scherfling K8NAU.

Our next Prescott test session is Saturday, January 9, 2016.

Member Illnesses

Two of our members are continuing to recover from major surgeries and are fighting cancer. Please reach out to them and remember them in your thoughts and prayers. Joe Oliver AC6AA - our Signal Editor Emeritus, who is recovering from cancer surgery. Walter Schumann KF6SPS – is also recovering from cancer surgery. He is back home in Prescott.

Liberia Update

The equipment we collected for donation to the Booker Washington Institute Amateur Radio Club in Kataka, Liberia is finally on its way. It should be delivered in Monrovia on roughly Dec. 6, 2015 and it will hopefully make it's way to the school by Christmas. The equipment included 2 HF transceivers, an HF vertical antenna, a 2M FM radio and accessories and tools too numerous to mention.

In addition to the equipment, we were able to obtain a \$2000 grant from the YASME Foundation for books. The ARRL gave us a 50% price reduction and we bought license manuals, handbooks, antenna books, operating manuals and other ARRL publications. These were shipped separately and should be arriving in Liberia shortly.

In the meantime, Dickson, EL2DT, taught a license class using photocopied license manuals. Approximately 20 people passed the Technician exam. They are waiting for licenses, the General class to start and the equipment to arrive - nothing happens fast in Liberia!

Thanks to everyone that donated equipment and time to this project. It takes so long to accomplish anything like this, it often seems like nothing is happening. But I am convinced we will have new hams on the air from Liberia as a result of this work.

The VooDoo Contest Group and I are going to continue to work with Dickson and Liberian Radio Amateur Association to build ham radio in Liberia - so don't be surprised when you see me coming around again with my hand out, begging for donations!

73, Bud N7CW

NRA 144th Birthday, Nov. 17, 2015 — K7NRA CW Operation, Jeep Posse Bldg., Prescott, AZ

This year, YARC's support of the NRA commemoration special event station operation occurred at two locations: 1) at the Gunsite Academy in Paulden; and 2) at the Yavapai County Jeep Posse building in Prescott. As with past YARC operation, the SSB and FM stations were operated using the equipment of YARC member Buz Mills K7GST. CW activities were conducted at YARC's club station (W7YRC) at the Jeep Posse building in Prescott. CW operators were Jim N6KZ, Frank K8FB, and Loren AE7CG.

A total of 76 CW contacts were made. Most were U.S. QSOs. Foreign contacts included 5 with Canada, and single contacts with stations in Cuba, Mexico, and Brazil. Bands used were 40, 20, 15, and 10 meters. Those hams contacted who are also NRA members were extremely happy to have worked K7NRA.

NRA 144th Birthday, Nov. 17, 2015 — K7NRA CW Operation, Jeep Posse Bldg., Prescott, AZ



Jim N6KZ



Frank K8FB

(Photos by Loren AE7CG)

**Special Event Station K7NRA, Nov. 17, 2015 — National Rifle Association 144th Birthday
by John Broughton, WB9VGJ**

The operation at Gunsite Academy in Paulden consisted of two stations: the usual HF phone station using the station of Gunsite's owner, Buz Mills K7GST, and a satellite station set up by Dale KL7R. There was good news and bad news for the HF phone operation this year. The noise level on 20M and 40M was horrible, making it impossible to make decent contacts. We moved to 15M early on in the operation and were kept busy for the rest of the day making contacts. We did try 20M and 40M later in the afternoon and the noise was even worse. That was unfortunate for the many hams calling us and/or waiting for us on those two bands who could not hear us on 15M and were unable to make a contact. Even with that, we had good results making 274 HF contacts.

Dale had good luck with his satellite efforts with a total of 30 contacts on 3 different satellites with 6 satellite passes. He worked one satellite he has never been able to work before, AO-85, and had 10 contacts on a single pass of SO-50.

With the 76 CW contacts from our station at the Jeep Posse building in Prescott, that gave us a grand total of 380 contacts for the event. The SSB operators for the event were Terry KB7TRE, John WB9VGJ, Pete K6VVR, and Dale KL7R on HF phone; and Dale KL7R on satellite. The CW operators were Jim N6KZ, Frank K8FB, and Loren AE7CG.

At the SSB location, we only had 10 hams and 4 non-hams attend the event. Dale's wife, Chris NL7DU, and his brother James, a non-ham, assisted Dale in the satellite operation. Unfortunately, Mike K7NRA was unable to attend due to vehicle problems. He has participated in the event most every year since we have been doing it and usually starts off the event as the first operator. He is very generous in lending his call sign for the event. Our special thanks to Buz KG7GST for his hospitality in allowing us to use his facility and to Mike K7NRA for allowing us to use his call sign.



Top Row: Dale KL7R and Ed KL7DU (Photos by KL7R)
Bottom Row: Terry KB7TRE & KL7R (Photos by WB9VGJ)



November 2015 Foxhunt
by John Broughton, WB9VGJ

The monthly foxhunt was held Sunday, November 9, 2015. Forrest, WH6EAL, was the fox. He chose a location on a trail adjacent to the Hassayampa Golf Course, which made the hunt interesting for some of us as we knew it was on the west side of the golf course, but had some difficulty figuring out which public road we could take to get to it. Two teams did not have difficulty finding the way to get to the transmitters.

We had four teams of hunters: 1) Bob WB6ODR; 2) Pete K6VVR, Diane KE7ODP, Frank KF7ANX, and Patrick KG7EWD; 3) Jeff WB7RFY and John WB9VGJ; and 4) Ron KCØTGG and Al AF6ZR.

The results of the hunt were:

Place	Team	Time
1	KCØTGG, AF6ZR	1 hr. 6 min.
2	WB6ODR	1 hr. 9 min.
-	K6VVR, KE7ODP, KF7ANX, KG7EWD	Found after time ran out
-	WB7RFY & WB9VGJ	Found after time ran out

The winners won by a close margin, as you can see. The other two teams found the location after time ran out. Also, the transmitter had stopped transmitting, so Forrest had to turn it back on, which gave me a clue as to where it was as I was not far behind him when he went to turn it on. It was a challenging hunt and everyone had a good time.

Congratulations to Al and Ron for being the winners!

You can see pictures of the hunt at:

<http://tinyurl.com/YARCFoxhuntNovember2015>

We would encourage more folks to get involved in the hidden transmitter hunts. They are really fun and help develop direction-finding skills.

A new Heathkit! So, why am I not excited?

by Dan Romanchik, KB6NU

A couple of weeks ago I got an e-mail from Heathkit. Yes, the NEW Heathkit. you might remember that a couple of years ago, there was all this hype about a "new" Heathkit and how they were going to start designing new kits as well as revive popular old designs.

Then, nothing. They went completely quiet—until a couple of weeks ago. In an e-mail sent to their "insiders," they say:

"Dear Heathkit Insider,

'What I really hope Heathkit will produce,' a Silicon Valley colleague recently told me, 'is a new radio kit with a beautiful finish, maybe in rosewood.' Something great to enjoy building and learn from, and also visually stunning, so he could put it in his living room and keep it forever.

Today, my friend gets his wish.

They then go on to explain all of the work they've been doing in relocating Heathkit to Santa Cruz, CA, acquiring a second company, and securing all the intellectual property rights to the old Heathkit manuals and logos (meaning no more bootleg copies on the Internet). The e-mail continues:

"That's a lot, but there's more. We've designed and developed a wide range of entirely new kit products. We authored the manuals for these kits, complete with the beautiful line art you rely on, preserving and respecting our iconic historic Heathkit style. We developed many new inventions and filed patents on them.....We built the back office infrastructure, vendor and supply chain relationships, systems, procedures, operations methods, and well-thought-out corporate structure that a manufacturing company needs to support its customers, to allow us to scale instantly the day we resume major kit sales. All this effort enables us to introduce a fleet of new kits and helps ensure Heathkit can grow, prosper, and continue to bring you great new products for a very long time."

So, what's the exciting news? A new QRP transceiver? Maybe a shortwave radio? A new 100-in-1 experimenter kit for Makers?

Uh-uh. Sorry. The "exciting" news is a tuned radio frequency (TRF) AM band (yes, I said AM band) radio kit that costs \$150 (<https://shop.heathkit.com/shop/product/explorer-jr-trf-am-radio-receiver-kit-black-case-gr-150-bk-16>). Not only is that crazy expensive for an AM radio, it doesn't even come with a speaker. On top of that, there's no soldering. You screw all of the components to the board. I'm speechless (well, figuratively, not literally).

I'm not sure what the target market is for this product. It's certainly not amateur radio operators, who expect a lot more (in terms of both functionality and "fun") for their money. Nor is it the "Maker" folks, who want something more challenging than an AM radio. I think that if I took this to show off at the local Ann Arbor Maker group, they'd laugh me out of the place.

I really hope that they have something better up their sleeves. A strong Heathkit would be good for the Maker movement and for ham radio.

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When not thinking about what kit to build next, Dan, KB6NU, operates CW on the HF bands (mostly 40m and 30m). His #1-rated amateur radio blog can be found at KB6NU.Com, and you can e-mail questions, comments, or complaints to cwgeek@kb6nu.com.

Electrical Wiring Basics
 by Mike Mavrigian
 (Auto Service Professional, September/October 2015, pp. 22-28)

Wire Gauge

The smaller the gauge number, the heavier the wire; and the larger the gauge number, the lighter the wire. The most common sizes in automotive applications include 18, 16, 14, 12, 10 AND 8 gauge (with battery cables typically heavier in the 4, 2, 0 and 00 gauges).

Wire is typically labeled or referred to with a gauge number, followed by "AWG." These letters stand for "American Wire Gauge." Automotive wires are typically stranded as opposed to solid single strand. The thinner the wire, the higher the gauge identification number.

American Wire Gauge (AWG)	Strand Diameter	Number of Strands
22	0.030 inch	7
20	0.028 inch	7
18	0.030 inch	16
16	0.029 inch	19
14	0.027 inch	19
12	0.025 inch	19
10	0.023 inch	19
8	0.021 inch	19
6	0.021 inch	37

Copper, Yes / Aluminum, No

Copper wire is favored as opposed to aluminum wire. In fact, you should avoid aluminum wire altogether. Why? First of all, copper is a better conductor than aluminum. In addition, the type of soft aluminum required to make wire tends to work-harden quickly (bend, bend, bend, break). And, the dissimilar metals will tend to react and will oxidize, which increases resistance, which can lead to poor conductivity and/or overheating of the wire. In a nutshell, using aluminum wire isn't worth the aggravation or the risk.

Typical (12V) Wire Gauge Sizes per Automotive Applications

Note: AWG below represents minimum size – you can go heavier, but never go lighter. Example specs here do not represent all circuits currently found on production vehicles.

Application	AWG	Application	AWG	Application	AWG
A/C circuit	10	Gauges	14	Parking Lights	16
Alternator	8	Headlights (HL)	14	Radio to Fuse Block	14
Ammeter	10	HL Switch to Fuse Block	12 or 10	Starter to Relay (Solenoid)	12
Cigar Lighter	14	Heater Leads	16	Stop Lights	16
Clock	18	Heater Switch	10	Tail Lights	16
Coil Wire	16	Horn (H)	14 feed, 16 ground	Turn Signals	16
Dome Light	16	H to Relay	14	Windshield Wipers/Washer	14
Aux. Drive Lights	14	Ignition Switch	12 or 10	XXXXXXXXXXXX	XXXXXXXXXXXX

YARC Volunteer Opportunities

Contact Frank Bender, K8FB (president@w7yrc.org) if interested in helping out in any of these or other areas.

Opportunity	Description
Buddy Mentors	We are looking for several more experienced club members to be a resource that new hams can contact with questions. You would also be a friendly face in the crowd. Here's an easy way to give back to our club and help keep the interest of newly licensed hams.
License Class Instructors and Chairperson	We are still looking for volunteers interested in helping out with instructing club members who are studying for their license tests.
Assistant Webmaster	We are looking for a volunteer who has strong Word Press and associated skills who can assist the webmaster with the website work load, especially with more complicated Word Press coding concepts.
Yavapai Hamfest Chairperson	The YARC Board would like to re-institute an annual hamfest in the Prescott area. We envision the hamfest being a half day or so event at a local venue, such as ERAU. The timing of the hamfest has not been determined. A hamfest in the summer would entice hams in the hotter areas of the state to come to Prescott. A spring or fall hamfest would also be an option.

**The Society of Amateur Radio Astronomy (SARA)
Western Regional Conference
Embry-Riddle Aeronautical University, Prescott, Arizona
11 July – 13 July, 2016**

The Society of Amateur Radio Astronomers (SARA) announces that a regional conference will be held at Embry-Riddle Aeronautical University in Prescott, Arizona March 11 to 13, 2016. SARA member Ray Fobes is a Staff Radio Astronomer at the University and is coordinating the event. Papers on radio astronomy hardware, software, education, research strategies, philosophy, observing efforts and methods will be presented. Registration for the 2016 Western Conference is \$60.00. This includes breakfast and lunch Saturday and Sunday. Payment can be made by going to www.paypal.com and direct payment to treasurer@radio-astronomy.org. Please include in the comments payment is for the Western Regional Conference.

You can also mail a check payable to SARA Treasurer at 904 Towering Oak Court, Purcellville, VA 20132. Please include an email address so a confirmation can be sent upon receipt of payment.

For further information see: www.radio-astronomy.org . Submitted by Tom Azlin, W7SUA.



Club Officers, 2015

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Yavapai Amateur Radio Club — W7YRC Club Station Access List — Effective August 20, 2015

Name:	Call:	Lic. Class	Notes:	Telephone:
F. Bender	K8FB	E	YARC President	379-5575
P. Morrison	K6VVR	E	W7YRC Trustee	899-8555
B. Semon	N7CW	E	Elmer Group	771-8267
J. Zimmerman	N6KZ	E	Elmer Group	713-0542
A. Protas	KG6AY	E	Elmer Group	227-2954
D. Freeman	KV8TD	E	N7GMH Trustee	759-0958
D. Bauer	WB7TPH	E	VE Chair	775-4690
R. Dashiell	W6TYV	G	Dual Member	602-501-2571
J. Grimm	KD7RMV	T	Dual Member	759-0747
R. Mauldin	N7NGM	E	Rotating Member	216-2637
D. Hanson	W7BJ	E	Rotating Member	602-615-3444
M. Belanger	W1DGL	G	Rotating Member	420-0498



