



Yavapai Signal

The Yavapai Amateur Radio Club – Prescott, Arizona – DM-34 – Volume 32 – No. 8 – August 2017

Upcoming Club Events

Event	Date	Time	Place	Contact / Info:
General Meeting	TH 08/03/17	1900 MST	PMHMS	Club Website
Fox Hunt	SAT 08/12/17	1300 MST	OneAZ Credit Union Parking Lot, GG Wy. & WC Rd.	Pete K6VVR or John WB9VGJ
YARC Breakfast	TH 08/17/17	0800 MST	BackBurner Restaurant, Prescott Valley	Don WB7TPH or Jeff WB7RFY

Public Service Event Communications — Schedule — See page 7.

License Testing — Schedule — See page 8.

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	Mike Reid N7IEP	Pete Morrison K6VVR
Cost:	\$7.00 each	\$3.00 each	Without Name & Call \$20.00 — With Name & Call \$24.00 each

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.

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)	144.250 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	1930 MST
¾M	FM	447.650 MHz	-100.0 Hz	Saturday	0900 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 Repeaters

2M	FM	146.880 MHz	-100.0 Hz	Open Use 24/7	Open Use 24/7
¾M	FM	447.650 MHz	-100.0 Hz	Open Use 24/7	Open Use 24/7

Club Mentors (“Elmers”)

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

ask.elmer@w7yrc.org

Share Your Surplus Items

Bring any ham related surplus items that you no longer have a need to the next club meeting. **There will no longer be a table outside the building.** Instead there will be a table inside the room where refreshments are served where your items can be placed. Let your fellow club member take those things with them that they feel might be useful to them. The table will be available at each monthly meeting.

Canned Food Donations

Bring your non-perishable food items to the monthly club meetings and Terry Pemberton KB7TRE will take them to the local food bank. Place your bagged items on Terry's desk when you come in.



From the President's Desk
by Kathy Laing, KJ6KMK

It has been a very eventful summer so far. I can't believe it is almost August already. June was busy with the hamfest which was very successful and Field Day with the picnic. I believe everyone had a good time at both events. Then the Goodwin fire began on June 24, and YARC members who are part of ARES/RACES were activated to help with listening for vital information at the Emergency Operation Center. The GMHS Special Event on June 30 was held under less than ideal conditions but we did make some contacts.

The Goodwin fire was still active until the July 4, when the fire abated somewhat and people could return home. Now the summer monsoon rains have started and we can hope for wet conditions and maybe no flooding. During all of this the ham community did what it can do best – to assist with communications and support. Public service events help keep our skills sharp and ready. "When all else fails, amateur radio comes through".

We have a special event opportunity coming up for those who enjoy collecting QSL cards from special event stations: the Harvey Houses On-the -Air Special Event whose goal is to activate as many of the 84 historic Harvey Houses each year as possible.

So have some fun and enjoy what is left of our Prescott summer and don't forget to save August 26 to celebrate with the Jeep Posse.

Club Station Shack Improvements
by Frank Bender, K8FB

Randy Dashiell W6TYV and friend Curt Freeman built countertops and shelves for us at the YARC Club Station shack. Curt took and passed his Technician License exam on July 8, but had not received his call at the time this article was written.

We are waiting for the Jeep Posse building remodeling to be completed before re-assembling the club station. We are going to have three HF stations installed at the club station, and one VHF/UHF FM transceiver.

The station should be back together around the end of July. Many thanks to Randy and Curt for their work in building and installing the counter tops and shelves.



Mike N7IEP

TREASURER'S REPORT June 2017	General Fund	Repeater Fund	Prescott Hamfest Fund
BEGINING CASH - May 31, 2017	7,899.94	2,879.68	(519.14)
Dues	72.00	8.00	
Donations	440.00		
PHF Hamfest Proceeds			3309.00
PHF Pre Hamfest Sales			279.00
Consignment Sales	1,528.00		
Ham Test Online Course	19.95		
Club Picnic Proceeds	395.00		
50/50 Raffle - net	69.00		
Misc. < \$50	20.76	0.15	(4.41)
	<hr/>	<hr/>	<hr/>
TOTAL INCOME	2,544.71	8.15	3583.59
Consignment Sales payouts	945.50		
Consignment Sales supplies	70.89		
PHF 50% split to ERAU			1048.69
PHF - 10% fee to ARCA			233.04
ASRN Balloon Launch at PHF	400.00		
Feid Day Expenses	312.08		
Club Station Hardware	133.24		
Club Picnic expenses	546.93		
Badges - AZ Grahix	63.00		
Misc. < \$50	106.05		19.42
	<hr/>	<hr/>	<hr/>
TOTAL EXPENSES	2,577.69	0.00	1301.15
CASH - June 30, 2017	7,866.96	2,887.83	1763.30

* * Detailed statements are posted on www.W7YRC.org

Board of Director's Meeting

Date: June 29, 2017

=====MINUTES=====

Present at meeting: K8FB, N7IEP, KG6AY, KJ6KMK, and AB9JS.

Absent: N7NGM, KA5DWI, and K9WIZ.

Meeting called to order by KJ6KMK at 1800 MST.

Old Business:

The June 2017 board and general meeting minutes and the May 2017 treasurer's report have been published in the July 2017 Yavapai Signal (General fund \$7899.94, repeater fund \$2879.68, hamfest fund – (a negative \$519.14).

□ A motion was made by KG6AY to accept the minutes and the treasurer's report as printed in the Yavapai Signal. Motion was seconded by AB9JS. Motion passed.

YARC Club Station update – K8FB

□ Frank gave an update on the movement of the club station and plans for the remodel. The switching panel next to the roll-top desk will be removed and the roll-top desk either sold or donated. The tower will also be nested after the GMHS event to prepare for monsoon season.

Received a donation of a printer/copier from KG6IDN for the club station

□ The board accepted the copier and thanked KG6IDN for his donation.

Prescott Hamfest at ERAU - K8FB and financials from N6IEP

□ The 2017 Prescott Hamfest was a success. We had 628 paid attendance on Saturday which was great for a 1-day event. YARC and ERAU each made \$1048.69 profit.

Field Day/Picnic – June 24-25 – update fK8FB

□ A great time was had by all . We had \$365 in income and the picnic and material for Field Day cost \$423.. We got good publicity in the paper thanks to WB7TPH – so the events were successful.

Upcoming Programs

— July Program – The program for July will be Special Interest Group (SIG) breakouts.

— Following are the current YARC SIGS and moderators:

— Beginning Ham SIG – N6KZ and KG6AY

— Digital SIG – W7SUA

— Software Defined Radio (SDR) SIG – NO1D

— Arduino and Raspberry Pi SIG – NO1D – may be combined with SDR SIG

— IRLP and Echolink SIG – N7NGM

— 10 Meter SIG – W7PVA

— Amateur TV (ATV) – Moderator TBD

— August -- ARA Repeaters with Virgil Silhanek

— Sept – (Coax – an expansion of the seminar) tentative

— Oct -- Hamfests visited with Gary Austin

— Nov -- Elections and Lloyd Halgunseth Memorial

— Dec -- Service awards and SIG breakouts

New Business:

N7GMH Special Event – K8FB

□ KV8TD will be in charge of the event which will start at 0900 MST at the Jeep Posse Building.

Harvey House On-the-Air Special Event to be held September 9, 2017 – KJ6KMK

□ Kathy will put the information in the Yavapai Signal for any interested members.

Suggestion from K7PVY to apply for a grant to purchase a Automatic External Defibrillator (AED) for the club to have for club events.

□ The Board requested that this be tabled pending additional information.

Invitation from the Jeep Posse to have YARC members attend their 65th anniversary celebration on August 26, 2017.

Request to approve expenditure of up to \$300 for Technician Manuals for next class July 29. – KJ6KMK

□ A motion was made by AB9JS to approve the expenditure. Motion was seconded by KG6AY. Motion passed.

Need to determine to whom should be sent the club donation check for the hamfest balloon launch. K8FB to inquire.

Requested to donate \$150 to the Jeep Posse for the use of the building for Field Day. That will cover the utilities used as well as it being the same as the donation made in 2016.

□ A motion was made by K8FB to approve the expenditure. Motion was seconded by KG6AY. Motion passed.

A meeting will be called to discuss the membership process and how to improve it.

Adjournment: KJ6KMK adjourned the meeting at 1930 MST.

Yavapai Amateur Radio Club, Member Meeting

Date: July 6, 2017

=====MINUTES=====

Meeting called to order by vice president AB9JS at 1900 MST,.

Pledge of Allegiance led by AB9JS.

Welcome to visitors: 1) Paula Jones KD7TNB; 2) Eric Knight and daughter Jenna; and 3) Jim Newman & Darcie Casender.

Welcome to new members: 1) Martin J. Adams, KG7OIJ; 2) Michael J. (Gunney) Beck, KI7GUM; 3) Dennis Benson, KG7YWD; 4) Joseph Connellan, W7JPC; 5) Scott Ekdahl, KG7LMD; 6) Paul T. Fimmel, W7EFQ; 7) Timothy C. Fitch, AG7GY; 8) Gary L. Granger, WA8QVE; 9) Vito T Greco, KI7LWV; 10) Lee Hennes, KI7NFH; 11) Sandra Huston, KG7VQN; 12) Michael Mladejovsky, WA7ARK; 13) John R. Meyer, AC7HP; 14) Stephan Smith, KG7KHT; 15) Lee Quint, KI7ALM; 16) Bob Shunkwiler, KI7NRR.

The June 2017 board and general meeting minutes and the May 2017 treasurer's report have been published in the July 2017 Yavapai Signal (General fund \$7899.94, repeater fund \$2879.68, hamfest fund – (a negative \$519.14).

□ A motion was made by WB9VJG to accept the minutes and the treasurer's report as printed in the Yavapai Signal. Motion was seconded by WB7TPH. Motion passed.

Request to approve a major expenditure of \$800 to build the new club station shack – K8FB

□ A motion was made by K7TSY to approve the major expenditure request. Motion was seconded by KG7BAM. Motion passed.

Prescott Hamfest at ERAU - Update from K8FB and financials from N6IEP

□ The 2017 Prescott Hamfest was a success. We had 628 paid attendance on Saturday which was great for a 1-day event. YARC and ERAU each made \$1048.69 profit.

Field Day/Picnic – June 24-25 – update from K8FB

□ A great time was had by all. We had \$365 in income and the picnic and material for Field Day cost \$423.. We got good publicity in the paper thanks to WB7TPH – so the whole day was a success.

Received a donation of a printer/copier from KG6IDN for the club station.

N7GMH Special Event – KV8TD

□ KV8TD reported there were 122 contacts with unfavorable conditions

— Invitation from the Jeep Posse to have YARC members attend their 65th Anniversary celebration on August 26, 2017.

— KG7LMI provided an update on the Goodwin fire. ARES/RACES members put in many hours helping to listen for important information at the EOC.

Committee Reports:

YARC Event Communications – K8FB; Club Repeaters – K6VVR and NO1D; Fox Hunt – K6VVR and WB9VGJ; Elmer Group and New Ham Classes – N6KZ and KG6AY; School Events – KB7TRE; VE Exam, WB7TPH, next exam July 8, Tech practice exams July 5;

Technician License Classes – K7TSY July 29 & Aug 5 at 0800 MST, Jeep Posse building.

Upcoming Programs:

- July Program – The program for July will be Special Interest Group (SIG) breakouts. Following are the current YARC SIGS and moderators: Beginning Ham SIG – N6KZ and KG6AY; 10 Meter SIG – W7PVA; Amateur TV (ATV) – Moderator TBD;
- August -- ARA Repeaters with Virgil Silhanek
- September – (Coax) tentative
- October -- Hamfests visited with Gary Austin
- November -- Elections and Lloyd Halgunseth Memorial
- December -- Service awards and SIG breakouts

Adjournment: AB9JS adjourned the meeting. /* Adjournment time not given. */

Upcoming Public Service Event Communications
by Bud Semon, N7CW

Here is a list of upcoming Public Service Events:

- March of Dimes Walk – August 26, 2017** – Contact **Frank Bender K8FB** (fhb47@hotmail.com)
- Skull Valley Loop Challenge - September 17, 2017** – A 54 mile bike race that begins at the Prescott Courthouse square – contact **Frank Bender K8FB** (fhb47@hotmail.com).
- Groom Creek Classic Run – September 23, 2017** – contact **Frank Bender K8FB** (fhb47@hotmail.com).
- Prescott Road Rally – October 6 & 7, 2017** – Contact **Bob Rosevear WB7RRQ** (rosevear520@cableone.net)
- Man/Horse Race – October 7, 2017** – Contact **Frank Bender K8FB** (fhb47@hotmail.com)
- Diabetes Walkathon – October 15, 2016** – Contact **John Broughton WB9VGJ** (wb9vgj@arrl.net)

General Meeting Programs

- July Program** – Special Interest Group (SIG) breakouts.
- August Program** – Virgil Silhanek K7VZ will be enlightening us about the Arizona Repeater Association (ARA) portfolio of repeaters.

2018 Hamfest Planning Meeting

For anyone who might wish to help plan the 2018 Prescott Hamfest at ERAU, which will be held on June 1 and 2, 2018, the first planning meeting will be held on Wednesday, August 2, from 1800 to 2000 MST. The meeting is tentatively scheduled to be held at the Jeep Posse building.

If you are interested in helping plan the 2018 hamfest, feel free to attend. We would be happy to have your help in whatever capacity. We are particularly looking for someone who might be able to plan and schedule non-ham activities for spouses or friends of ham attendees.

Contact: Frank Bender K8FB (928) 379-5575 or fhb47@hotmail.com .



License Testing
by Don Bauer, WB7TPH

Our next test session will be Saturday, September 9, 2017 — 0900 MST, Jeep Posse Building

The July 8 test session resulted in 7 new Technician licensees and 1 new General. Congratulations to all, and a big thanks to our stalwart VEs for a job well done.

Upcoming License Testing

Date	City	Location	Time	Sponsor	Contact	Walk-in
08/28/17	Prescott Valley	Trinity Lutheran Church, 3950 Valorie Dr.	1830 MST	PV Ham Study Group	Jim Scherfling 928-632-2050	Yes
09/09/17	Prescott	Jeep Posse Building	0900 MST	YARC	Don Bauer 928-775-4690	Yes

2017 Field Day and YARC Picnic was a Great Success

by Frank Bender, K8FB

We had a great Field Day and club picnic on June 24 and 25. Despite the very hot weather, we had approximately 66 visitors, operators, and picnickers. The beef tri-tip barbecue again prepared by Terry Schultheiss KG7BAM was awesome and drew a lot of positive comments. Thanks to Terry and Jo KF7WOT for all their hard work in making the picnic a great success. Thanks to Brian Vlastelich K7TSY for being the Get On The Air (GOTA) station captain.

A reporter from the Prescott Daily Courier stopped by and interviewed a number of Field Day participants. Here is a link to the Field Day article that appeared in the Daily Courier:

<https://www.dcourier.com/photos/2017/jun/24/984942134/> .

Here is a link to some pictures of the event:

<https://www.dropbox.com/sh/0c3iwmgi95zj3m/AAUw3wCcrxawMyFB7W4Bwo4a?dl=0> .

2017 Field Day results have been submitted to the ARRL. Contacts achieved: 185 CW, 427 phone, and 1 digital.



Jackson Fuller, W1FOG at YARC Field Day

(excerpted from "Local enthusiasts say amateur radio still has role in digital age: Is amateur radio a dying hobby?", by Max Efrein, in the Prescott (AZ) Daily Courier, June 25, 2017)

Twelve-year-old Jackson Fuller officially got his amateur radio license about a year ago. He's the only youth he currently knows practicing this old-school pastime.

"I see mostly seniors using it," Fuller said. "I kind of like it that it's a unique thing for my age." Attempts to lure his schoolmates into trying it have failed miserably, he said.

"Believe me, I've tried," Fuller said. "They rather play videogames or sports." He finds this unfortunate, for he has developed a sincere interest in the hobby. "I don't want it to die," Fuller said.

Jackson is the grandson of Jim Zimmerman, N6KZ — a YARC member and mentor of newly licensed amateur radio operators.

Harvey Houses On-the-Air: September 9, 2017 by Andrew Eldridge, NM5AE, HHOTA Coordinator

Hello to all amateur radio clubs in the vicinity of historic Harvey Houses. Harvey Houses On-the-Air special event stations will activate many of the 84 historic Harvey Houses each year on the second Saturday of September (in 2017, this will be September 9). We would like to get special event stations operating at each former Harvey House location.

Fred Harvey built and operated Harvey House Hotels and Restaurants (both commonly referred to as Harvey Houses) along western railroads. Apparently in Arizona there were eight Harvey Houses: 1) Ash Fork; 2) Grand Canyon; 3) Kingman; 4) Seligman; 5) Petrified Forest National Park; 6) Phoenix; 7) Williams; and 8) Winslow.

HHOTA information is at www.qrz.net/vcara which includes links to more information about Harvey Houses and the famous Harvey Girls recruited as staff.

New Mexico's Valencia County Amateur Radio Association is sponsoring HHOTA.



Mike N7IEP and Brian K7TSY Operating N7GMH
(Photo courtesy of Mike Belanger, W1DGL)

N7GMH Granite Mountain Hotshots Memorial — Special Event Station
by Doug Freeman, KV8TD

With the continuing backdrop of smoke from the very active Goodwin fire, this year's N7GMH June 30 Granite Mountain Hotshots Memorial operation was especially poignant this year. Many of the stations we worked were aware and appreciative of the significance of the operation, as well as the fact that we were dealing in real time with another major wildfire in the area as well.

I received a QSL card from Everett N. Gibson, N5EAL of Beaumont, Texas. On his card, he wrote: "Thank you so much for the contact on this very special, special event. Firefighters are true heroes (often unspoken ones!). Wanted to send a QSL for your records. 73, Neal, N5EAL."

The contact count was down significantly from last year's 300+ — only 126 total with most being made on 20 meters from the Jeep Posse club station. Band conditions were not good, but over the course of the day all areas of the USA were heard from. Club President Kathy, KJ6KMK made some from her home station on 40 meters, but she was the only member to operate from her home station.

We had eleven operators present during the day, and all made a major contribution to the success of the event. They were: K8FB, WB7TPH, KG7YVQ, KI7LWZ, K7TSY, W1FOG, N6KZ, N7IEP, W1DGL, KJ6KMK, KF7WOT, KG7BAM, KV8TD.

Thanks to all who participated. Don WB7TPH is sending QSL certificates to all who have requested them. Contact Don to get yours if you have not already done so!

Jeep Posse 65th Anniversary Gala Celebration
by Frank Bender, K8FB

This year is the 65th anniversary of the founding of the Yavapai County Jeep Posse (YCJP). The Jeep Posse is holding a celebration on Saturday, August 26 from 1700–2100 MST at the Jeep Posse building at 1200 Commerce Drive in Prescott.

The YCJP has invited all YARC members to attend. Mark your calendars. Congratulations to the Jeep Posse and thanks for all that they do for the citizens of Yavapai County. You can find more information about the Jeep Posse at www.ycjp.org.



John WB9VGJ



July 2017 Foxhunt
by John Broughton, WB9VGJ

The monthly foxhunt was held Sunday, July 9, 2017. Pete K6VVR was the fox. There were two teams for this hunt: 1) Bob WB6ODR and Bob WA6FBA; and 2) Jeff WB7RFY and John WB9VGJ.

The results of the hunt were:

Finish	Team	Time
1	WB6ODR and WA6FBA	1 hr. 7 min.
DNF	WB7RFY and WB9VGJ	N/A

The fox picked good a location to hide the transmitters, at the end of Whispering Way Circle, a dead-end street off of Lee Blvd. in The Ranch at Prescott. The location was on the east slope of Badger "P" Mountain and the mountain blocked the signal from most of the Prescott basin.

It turns out that the hiding place was one that made it difficult for Jeff and me. We heard the primary transmitter's very weak signal at the starting point, but drove over a lot of Prescott without hearing it at all. When we finally picked it up on entering east Gurley St. we did end up heading in the general direction of the transmitter. However, as WB6ODR and WB6FBA had found it and we knew it would take us a while to find it, we asked where it was and we drove there to see just where the transmitters were hidden. We did not wish to prolong the hunt as we were the only other team.

You can see pictures of the hunt here:

<https://tinyurl.com/YARCFoxhuntinJuly-9-2017>

We had our usual after hunt socializing session at the Prescott Junction restaurant. We would encourage more folks to get involved in the hidden transmitter hunts. They are really fun and help develop direction-finding skills.

MUD 2017

Microwave Update 2017 will be held on October 26-29, 2017 in sunny Santa Clara, California. The MUD conference is dedicated to microwave equipment design, construction, and operation. It is focused on, but not limited to, amateur radio on the microwave bands. The 50 MHz and Up Group of Northern California is pleased to host this year's event.

For more information, please check out the MUD 2017 webpage at www.microwaveupdate.org.

Call for Papers

The MUD 2017 program committee is now calling for papers and presentations on the technical and operational aspects of microwave amateur radio communications. Tell us about your latest project, design or operating adventures. The technical program will take place Friday and Saturday, October 27 and 28, 2017, in Santa Clara, California.

Please click on the >> Call for Papers << link on the MUD webpage to learn how to submit your paper and presentation. Surely you have something new and exciting to share this year! Submissions are due in the first week of September, but please send a short email to mud2017.papers@gmail.com sooner with a proposal. Don't wait until the beginning of September to let us know what you're planning!

Presentations selected for the technical program may be given in person or by proxy. Please send an abstract and expected duration no later than September 5, 2017 so that we can determine and announce the program agenda the following week. Ideally, send your draft presentation by the same date. We encourage presenters to submit a companion paper for publication in the proceedings book. See the website for more information. Papers may be submitted even if there will not be a presentation, with the same publication deadlines. Short papers (1 or 2 pages) are welcome, in addition to full length. Survey papers that summarize current know-how and tutorials that help and encourage newcomers are also welcome.

Mike Lavelle, K6ML, MUD 2017 Technical Program, mud2017.papers@gmail.com

Suggested Topics:

- * Centimeter, millimeter, sub-millimeter and light wavelengths
- * Antenna and feed design, simulation, construction, measurement, application
- * Microwave building blocks (LNAs, PAs, LO chains, Mixers, Synthesizers, Filters, etc.)
- * Transverters (single and multi-band)
- * Software defined radios
- * Fixed station, Rover and Beacon design, packaging and operation
- * EME, Satellite and Earth station design and operation
- * Operating techniques, software and other aids
- * Weak signal propagation modes and enhancements
- * Digital modes for weak signals or data communications
- * CAD tools (preferably free or low cost) for circuit, antenna, path and system simulation and design
- * Homebrew designs with modern commercial components
- * Construction techniques (SMT, wirebond, microstrip, waveguide, substrates, homebrew)
- * Conversion of surplus microwave equipment
- * Test equipment and techniques (low cost, modern or surplus)
- * Or – suggest your own topic

For Sale

Kenwood TS-570D Solid State HF Transceiver

100 Watts - 160 to 10 Meters – with internal auto-antenna tuner and internal speaker. General coverage receiver from 500 Hz to 30 MHz. Excellent condition. Includes hand mike, power cord, instruction manual, and original cartons. YK-88C- 1 500 Hz CW filter is also installed. This is the same model as the main transceiver at the YARC club station. See user reviews at <http://www.eham.net/reviews/detail/237> . **\$450.**

Frank Bender K8FB — (928) 379-5575 — fhb47@hotmail.com

W7YRC 2M FM Net — 147.260 MHz, PL +103.5 Hz — Wed., 1900 MST

Note: NCS = Net Control Station

Call	Name	06/21/17	06/28/17	07/05/17	07/12/17	07/19/17
AE7CG	Loren	NCS	NCS	NCS	NCS	NCS
K6VVR	Pete	x	x	x	x	
K7DCT	Andrew	x		x	x	x
KA5DWI	Art	x		x	x	x
KF7ANX	Frank	x	x	x	x	x
KF7FPD	Jerry	x	x	x	x	x
KF7PQV	Dan		x	x	x	x
KG6AY	Art	x		x		x
NØSCA	Frank	x		x		
W7HAM	Ralph	x	x	x	x	x
WA6AQK	Ken	x	x	x	x	x
WN7E	Tom	x	x	x	x	x
KF7INF	Dennis	x	x	x		x
KG6IDN	Joe	x	x	x	x	x
KG7EWD	Patrick					x
K6PSR	Tony	x				
WA6FBA	Robert		x		x	x
NO1D	Doug	x			x	
KI7LXI	Sheila	x			x	
N6QCA	Phil	x				x
KI7LWZ	Mike		x			x
KG7GLK	Neil	x				x
KG7LMJ	Mike	x				
KD7OIW	Peter		x			x
WB7RXK	Clyde	x		x		
K9WIZ	Sandy			x		
W7OTB	Vince		x		x	x

Questionnaire

The club has been receiving a number of inquiries from hams wanting to move to our area. In order to provide them with information about "ham friendly" areas we would like to request that you complete the following questionnaire and either bring it to the meeting or email it to an club officer or board member. We will also provide copies at the meetings for your convenience. Thank you for helping other Hams.

Name: _____ Call: _____

Address: _____

Name of Subdivision (if any): _____

Do you reside in a City, Town or County?

City: _____ Town: _____ County: Y or N

Are you subject to any antenna restrictions? — Y or N

If there are restriction, what are they? _____

Have you any other specific comments about your experience?

The DX Store

No BS. Just good old fashioned customer service.

Heil PRO7 Simply The Best

Black

Red



Pink

Blue

Available in Four Colors

sales@dxstore.com
www.dxstore.com

How to Copy CW in Your Head

by Dan Romanchik, KB6NU

The second most common question that I get about CW is, "How do I learn to copy in my head?" When I get this question, I give, what to some, is a very unsatisfying answer. One day, I just went cold turkey. I put down the pencil and paper and never copied letter-by-letter ever again.

Carlo Consoli, IKØYGJ, author of Zen and the Art of Radiotelegraphy (http://www.qsl.net/ik0ygj/enu/ZART_r20101008m.pdf), says that what operators need to do is to program themselves to copy in their heads. He counsels operators to practice relaxation and visualization exercises. Visualize yourself as a high-speed operator, and maybe one day you will be one.

This approach seems to have worked for Consoli. He is a member of the Very High Speed Club (VHSC), First Class Operator's Club (FOC), and has been clocked at copying over 70 WPM. I'm not sure that this is really going to work for everyone, though.

Another approach is touted by Carl, N7AGK. On his website, Carl writes, "I have created a program to assist you in learning to copy Morse code in your head. Everything you need will be contained on a single USB flashdrive that I will provide to you. In the program there are audio Morse code presentations followed by a visual display. The visual display shows the information in large print and upper case letters. The visual display verifies that you have received the Morse code correctly." Carl's program costs \$20 and is available from n7agk.com.

Zeb, HB9FXW, has created a free web application called Seiuchy (<http://www.kb6nu.com/let-walrus-help-copy-head/>) to help people learn head copying. Seiuchy, which Zeb says is Japanese for walrus, simulates on-air contacts. The trick to using this app is that instead of copying exactly what's sent, you only copy the most important bit of information. The idea is that if you train yourself to do this, then you can concentrate on what's important rather than getting bogged down in copying what's not important.

A different take on head copy was sent in by one of my blog readers, Bill, W3MSH. He wrote, "I was a CW op for many years and discovered something fascinating. I first began to hear "dots and dashes", then letters, words, sentences and at 35+ wpm, thoughts in my head."

I think Bill may have hit the nail on the head with this comment. I like the idea that copying code in your head is more akin to generating thoughts than it is to copying individual characters or words. Everybody talks about how getting faster is about moving from copying individual characters to copying words to copying entire sentences. I've never thought of it that way, although I was at a loss as to how to describe how I do it. I think the idea that when copying in your head, the code creates thoughts directly is a beautiful way to put it.

Isn't that what's happening when you talk to someone? When someone talks to me, I don't consciously parse the sentences and then analyze them to see what was just said. It's more of an unconscious process. The sounds being uttered are creating ideas in my head.

Shouldn't we approach head copy in the same way? Instead of thinking about head copy as the process of writing down the characters on an internal blackboard to be read later, it should be about translating the sound of the Morse Code directly into concepts. The sounds "dah di dit...dah dah dah....dah dah dit," should conjure up the image of a poodle or a pitbull, not the letters "D O G."

How that translates into a program or a method for learning to copy the code in one's head is another matter. It might be worth thinking about, though.

Dan Romanchik, KB6NU, is the author of The CW Geek's Guide to Having Fun with Morse Code and the "No Nonsense" series of amateur radio study guides. When he's not head copying on 30M, he blogs about amateur radio at KB6NU.com.

Ham Researcher to Investigate Effects of Solar Eclipse

by Dan Romanchik, KB6NU

August 21 is a once-in-a-lifetime opportunity for many in the U.S. to see a total eclipse. It's also an opportunity for a team of Virginia Tech researchers to study the effects of the eclipse on changes in the upper atmosphere that have an impact on HF propagation and the global positioning system (GPS). Backed by research funding from NASA and the National Science foundation, the team is headed by Dr. Greg Earle, W4GDE.

The Virginia Tech team plans to gather data from a variety of sources, including radar systems, transceivers, satellites, ham radio, and GPS receivers, in order to analyze the effects of the solar eclipse on the conductive region of the atmosphere.

"Whether military radar, or consumer GPS signals, the eclipse is going to have effects on the medium that we would like to understand better, so that we can either mitigate them or use them to our advantage," said Earle.

Here are a couple of links to news stories on the research team and the experiments:

* Virginia Tech team prepares for special project during total solar eclipse (<http://wset.com/news/local/virginia-tech-team-prepares-for-special-project-during-total-solar-eclipse>)

* Virginia Tech expert to study August solar eclipse effects on radar, ham radio, GPS (<http://wtkr.com/2017/07/17/virginia-tech-expert-to-study-august-solar-eclipse-effects-on-radar-ham-radio-gps/>)

Let's party!

In conjunction with the eclipse, the HamSCI and the ARRL are sponsoring the Solar Eclipse QSO Party (<http://www.hamsci.org/seqp>). (SEQP). According to an article in the August 2017 issue of *QST*, the goal of the SEQP is to "flood the airwaves with contacts, all measured by the automated receiver networks of the Reverse Beacon Network, PSKReporter, and WSPRNet." Once all the logs are in, researchers will analyze the data to see what effect the eclipse had on radio propagation.

A YouTube video of a presentation at Dayton on the SEQP can be found at <https://youtu.be/3EviY2Cuxpo?list=PLihPo8xWmo8-xDYAtP9BWX9QnhUoT7k4>.

The SEQP will run from 1400Z - 2200Z on Monday, August 21. This is well before the eclipse is due to begin on the West Coast. The reason it starts before the eclipse is to establish a baseline for radio propagation conditions.

SEQP organizers urge you to make as many contacts as you can on as many bands as you can operate. Like nearly every contest, contacts are not allowed on 60m, 30m, 17m, and 12m. CW, RTTY, and PSK31 are the preferred modes because automated receivers can record those contacts, but phone and other digital modes count, too.

An interesting twist to this contest is that, like Field Day, you can earn a number of bonus points, including:

- * Operating outdoors (100 points)
- * Operating in a public place (100 points)
- * Operating a wide-band automated receiver at your station (100 points)

Hams have had a long history of supporting scientific research. They provided communications for some of the early polar explorations and listened for Sputnik as it flew overhead. The Solar Eclipse QSO Party continues this tradition, and it's going to be a lot of fun as well. Visit the HamSCI website (<http://www.hamsci.org/seqp>) for more information.

Dan Romanchik, KB6NU, blogs about amateur radio at KB6NU.com, and is the author of the "No Nonsense" amateur radio license study guides and the *CW Geek's Guide to Having Fun With Morse Code*. You can reach him by emailing cwgeek@kb6nu.com.





Breakfast and Lunch Gatherings

There are a number of lunch and breakfast gatherings in the area that are open to all radio amateurs and interested persons. Please let us know of any updates or corrections at info@w7yrc.org.

Third Thursday of the Month – **YARC** holds an informal **breakfast** gathering at the **BackBurner** Restaurant at 0800 MST. The restaurant is at 8400 Long Mesa Drive in Prescott Valley. Contact Don Bauer WB7TPH or Jeff Hanna WB7RFY.

Second Tuesday of the Month – **Quarter Century Wireless Association (QCWA)** brunch gathering, 1030 MST to 1230 MST at the **Golden Corral** Restaurant in Frontier Village in Prescott, off Highway 69. You do not have to be a QCWA member to attend.

Every Monday – **Dan Nichols (W6SAK SK) Memorial Lunch**, 1100 MST to 1230 MST at **roving locations**. Contact Bob Rosevear WB7RRQ, 928-458-7830, rosevear520@cablone.net; or Bob Smith WB6ODR, 928-443-9321, lsmith@cablone.net for the next location.

Every Wednesday – **Breakfast** at 0700 MST at the **Manzanita Grill** at the Antelope Hills Golf Course, near the Prescott airport.

Every Wednesday – **Lunch** – 1100 MST at **Costco** — “The Umbrella Club”

Club Officers, 2017

Officer	Name	Call Sign	Email Address
President	Kathy Laing	KJ6KMK	kj6kmk.yarc@gmail.com
Vice President	John Stevens	AB9JS	vice.president@w7yrc.org
Treasurer	Mike Reid	N7IEP	treasurer@w7yrc.org
Secretary	Sandy Mattsen	K9WIZ	secretary@w7yrc.org
Director	Art Jackson	KA5DWI	ka5dwi@w7yrc.org
Director	Rex Mauldin	N7NGM	n7ngm@w7yrc.org
Director	Art Protas	KG6AY	kg6ay@w7yrc.org
Director	Frank Bender	K8FB	fhb47@hotmail.com
Editor Emeritus	Joseph Oliver	AC6AA	joliver@cableone.net
Editor	Loren Singh	AE7CG	ae7cg@arrl.net
Webmaster	Randy Dashiell	W6TYV	webmaster@w7yrc.org

Yavapai Amateur Radio Club — W7YRC Club Station Access List — Effective January 26, 2017

Name:	Call:	Lic. Class	Notes:	Telephone:
D. Hanson	W7BJ	E	Dual Member	602-615-3444
R. Mauldin	N7NGM	E	Rotating Member	277-7164
M. Belanger	W1DGL	E	Rotating Member	420-0498
R. Redford	KG7LMI	G	Rotating Member	623-252-3980
T. Jackson	K6PSR	G	Rotating Member	562-644-0528
F. Bender	K8FB	E	Station Manager	379-5575
J. Zimmerman	N6KZ	E	Elmer Group	713-0542
A. Protas	KG6AY	E	Elmer Group	227-2954
D. Freeman	KV8TD	E	N7GMH Trustee	759-0958
B. Vlastelich	K7TSY	E	License Classes	583-7572
R. Dashiell	W6TYV	G	Dual Member	602-501-2571

Note: K. Laing KJ6KMK; P. Morrison K6VVR; B. Semon N7CW; and D. Bauer WB7TPH have station access, but are not to be contacted for station access

