



Yavapai Signal

The Yavapai Amateur Radio Club – Prescott, Arizona – DM-34 – Volume 34 – No. 7 – July 2019

Upcoming Club Events				
Event	Date	Time	Place	Contact / Info:
General Meeting	TH 07/11/19 Second Thursday	1900 MST 7 p.m.	Prescott Rodeo Grounds	Club Website
YARC Breakfast	TH 06/18/19	0800 MST 8 a.m.	BackBurner Restaurant, Prescott Valley	Don WB7TPH or Jeff WB7RFY
General Meeting Programs — See page 3.				
Public Service Event Communications — See page 4.				

YARC:	Badges	Patches	Shirts
Features:	Name & Call	Club Name & Logo	With or Without Name & Call
Contact Person(s):	Jim Fortney K6IYK	Jim Fortney K6IYK	Pete Morrison K6VVR
Cost:	\$7.50 each	\$3.00 each	Without Name & Call \$20.00 — With Name & Call \$24.00 each

Club Website Registration
In order to receive the Signal (the club's official newsletter), you must be a member of the club. Make sure your email is correct by logging into our website (www.w7yrc.org), then clicking on the members tab and viewing your profile.

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 general meetings are usually at 1900 MST on the first Thursday of every month at the Danny Freeman Building, Prescott Rodeo Grounds, 840 Rodeo Drive in Prescott.

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
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 M

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

Submission Deadline for the Yavapai Signal

from editor Loren Singh, AE7CG

The usual deadline for submission of articles and photos to appear in the Yavapai Signal is the 18th calendar day of each month. That gives me time to edit and format submissions, and to have the newsletter available for distribution to the club membership by the 20th calendar day of each month. The aim is to have the newsletter in the hands of club members approximately 10 days or so before the holding of the general meetings on the first Thursday of each month.

ae7cg@arrl.net

Share Your Surplus Items

Bring any ham related surplus items that you no longer need to the next club meeting. There will be a table at the meeting where your items can be placed. Let your fellow club member take those things that they want. 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. Give your bagged items to Terry.

Meeting Minutes

By decision of the board of directors, minutes of the board and general meeting minutes will no longer appear in the Yavapai Signal. They are posted online at the club's website:

www.w7yrc.org → [Members](#) → [Login](#) → [Reports](#)

|
→ [Board Minutes](#)
→ [Club Minutes](#)

YARC General Meeting Programs, 2019

by Joe Thomas, KG6IDN

Month	Presenter	Subject / Details
July	Special Interest Group (SIG)	Need volunteers
August	Special Interest Group (SIG)	Frank Bender K8FB — Public Service Events
September	Special Interest Group (SIG)	Need volunteers

New Members

The following new YARC members joined at the June 6, 2019 general meeting. Please introduce yourself to them and make them feel welcome:

James Bray KJ7CEB	Ted Hartson WA8ULG	Neil Jonielunas KJ7GTZ
Jack Rose KB0YYG	Bernard Sakowicz W1RAD	Lilleann Bebb KJ7GTW
Dean Curtu KD7UQW	Chuck Emery KF7MNG	John Gera KE6AZA
Donna Gera KF6KSJ	Peter Havens K7HYT	Kevin Haywood K6KMH
Larry Johnson KJ7GTY	Ron Levine No Call Yet	Glen Morrison WH6EDP
Samuel Prather K7SCP	Flora Toth N9FSA	Francis Toth K9VMI

Mentor / Buddy

Our club is in need of help for new and no so new inexperienced Hams. There are a number of club members that have passed their license test but are asking, "Now what?".

Anyone interested in helping our club members in need or, if you are someone who needs help, please contact:

Dave Erlach W7VXS at w7vsx@w7yrc.org .

Mentor Buddies

Name	Call Sign	E-mail	Telephone
Don Bauer	WB7TPH	dbauer2250@aol.com	
Mike Belanger	W1DGL		420.0498
Frank Bender	K8FB	fnb47@hotmail.com	379.5575
Pete Morrison	K6VVR		899.8555
Bill Noe	W7PVA	w7pva@arrl.net	710.6925
Dave Hanson	W7BJ	w7bj@arrl.net	602.615.3444
Dick Hughes	W6CCD	w6ccd@arrl.net	928.759.0337
Jim Zimmerman	N6KZ	n6kzdx@gmail.com	
Art Protas	KG6AY		928.227.2954
Tony Jackson	K6PSR	ki6ahh251@hotmail.com	
Frank Johnson	N0SCA	pappyj1950@yahoo.com	

Autumn 2019 Public Service Events

- The Prescott Road Rally – September 27 and 28 – being organized by Bob Rosevear WB7RRQ
- The Man/Horse Race – October 5 – in cooperation with the Yavapai County Jeep Posse – being organized by Frank Bender K8FB

You can find these and other upcoming public service events on the club website at <http://www.w7yrc.org/public-service-events/>.



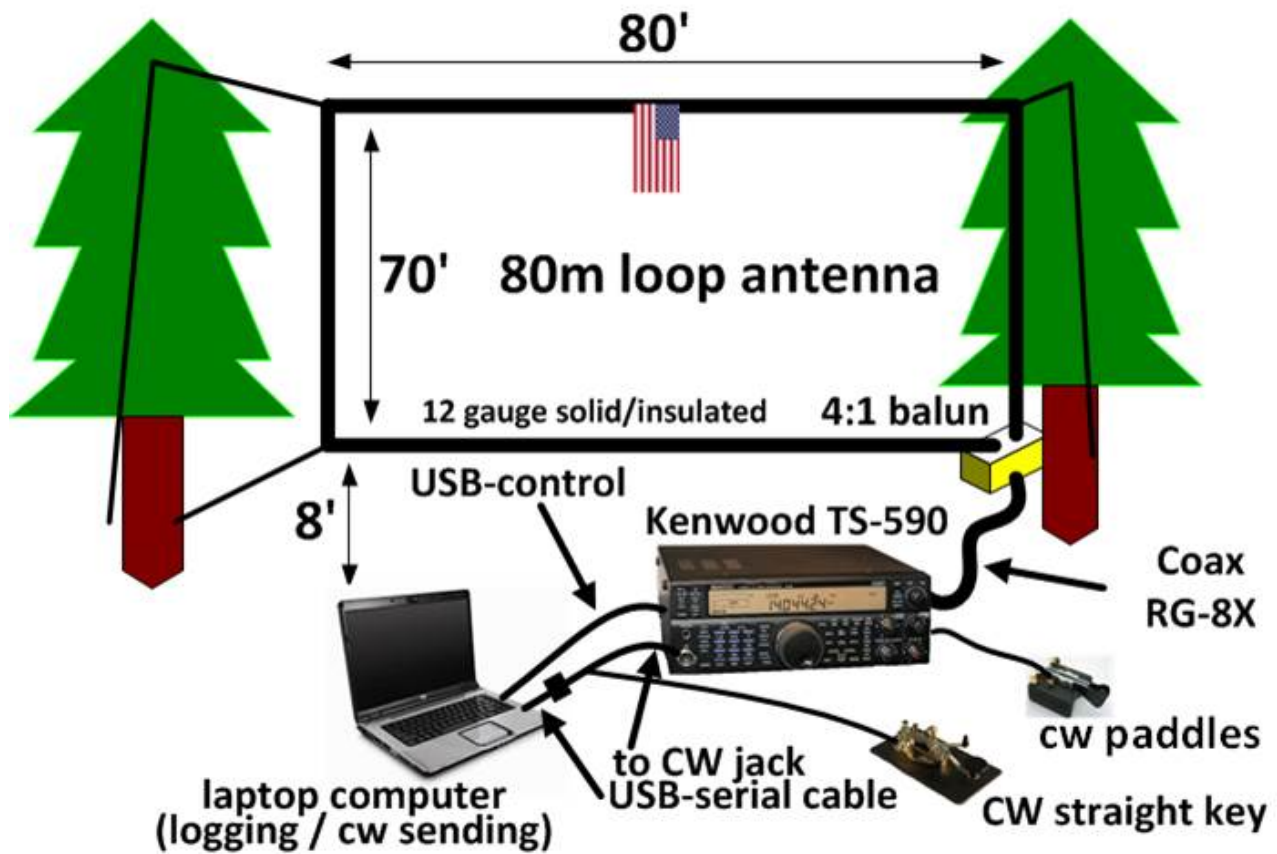
Bob Thompson KC8BOB “Caught by the Cops!” (Just Kidding) — Supporting the weather balloon at launch at the Prescott Hamfest at Embry-Riddle Aeronautical University, June 1, 2019 (Photo courtesy of Bob Rosevear WB7RRQ)



ARRL Field Day 2019 and Club Picnic

YARC participated in the 2019 ARRL Field Day by operating its club station W7YRC from the fixed location at the Jeep Posse Building in Prescott. Jo KF7WOT and Terry KG7BAM again performed their culinary magic by cooking up a delicious batch of barbecue beef tri-tips, and even the voracious appetites of the club members present were satiated. A good time was had by all.

At home, newsletter editor Loren AE7CG had out-of-town guests visiting, so could not operate on Saturday June 22. On Sunday June 23, in the early morning (0600-0655 MST) he had his usual duty of being net control operator for the Mingus Mountain Repeater Group (K7MRG/R, 147.000 MHz, +162.2 Hz PL FM) Sunday morning round-table. After gulping down his usual breakfast of a sliced apple and a bowl of oatmeal and peanuts (seasoned with soy sauce), he started operating on 20M CW with his trusty Bencher RJ-1 straight key. In sum, he operated from 0800-1100 MST and made 28 contacts. So that averaged out to about 9 contacts per hour – nice and leisurely, and great fun as always.



Prescott Valley Neighborhood Safety Group

“Neighborhood safety is our mission.”

Ham Radio Net — Sunday, 1900 MST (7 p.m.)
Frequency: 146.420 MHz, FM Simplex
Net Control — Raymond A. Kolman, Jr., KI7COM

www.pvnsg.net

www.facebook.com/pvnsg/

ray-kolman@pvnsg.net

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@cableone.net; or Bob Smith WB6ODR, 928-443-9321, lsmith@cableone.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”





June 2019 Foxhunt
by John Broughton, WB9VGJ

The monthly foxhunt was held Saturday, June 15, 2019. Pete K6VVR, Diane KE7ODP, and Patrick KG7EWD were the foxes. I was unable to participate in the hunt due to another obligation. The information for this report was supplied by K6VVR and Jeff WB7RFY, whom I thank for doing so.

There were four teams for this hunt: 1) Sherwin WB7NFX and Don KI7IOM; 2) Robert WA6FBA and Gary K6JXM; 3) Mike N7IEP; and 4) Jeff WB7RFY.

The results of the hunt were:

Finish	Team	Time
1	WA6FBA and K6JXM	1 hr. 22 min.
DNF	WB7NFX and KI7IOM	-
DNF	N7IEP	-
DNF	WB7RFY	-

The foxes hid the transmitters on a dirt road portion of West Valley View Road on the south side of Prescott near Cathedral Pines. They made the hunt very challenging, first by choosing the location they did, which was not all that easy to get to, and second by putting a metal reflector next to the primary transmitter which caused "sharp signal drops and other adventures" for the hunters as they were driving around searching for the transmitter.

It was reported that the lights on WA6FBA's Doppler setup kept flashing all around the circle making it difficult to determine the direction of the transmitter. K6VVR said the reflector did not have the effect he was hoping for, but regardless, it made it difficult for the hunters to find the transmitter as can be seen by the results of three of the four teams not finding it.

You can see pictures of the hunt here:

<https://tinyurl.com/YARCFoxhuntJune2019>

The participants had the 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.



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

Note: NCS = Net Control Station

Call	Name	05/22/19	05/29/19	06/05/19	06/12/19	06/19/19
AE7CG	Loren	NCS	NCS	NCS	NCS	NCS
K6VVR	Pete	x	x	x	x	x
KF7ANX	Frank		x			
KF7FPD	Jerry	x	x	x	x	x
KF7INF	Dennis	x	x	x		x
KF7PQV	Dan	x	x	x	x	x
KG6AY	Art			x		
W7HAM	Ralph		x		x	
WA6AQK	Ken	x	x	x	x	x
WN7E	Tom	x	x	x	x	x
KG7EWD	Patrick	x	x	x	x	x
WA6FBA	Robert	x	x	x	x	x
NO1D	Doug		x	x	x	x
KI7LXI	Sheila		x	x	x	x
KI7LWU	Tim	x	x		x	x
KI7LWZ	Mike	x				
K7LMJ	Mike			x		
W7PVA	Bill			x	x	x
W7WWB	Ron			x	x	x
KJ7WED	Bob	x	x		x	
K6PSR	Tony					x
K6UWV	David			x	x	x
N7NGM	Rex		x			
KK6PTO	John		x	x	x	x

Learning About Batteries by Dan Romanchik, KB6NU

I often say that getting an amateur radio license is as much getting a license to learn as it is getting a license to operate on the amateur radio bands. Lately, I've been learning about batteries, LiPo batteries to be exact.

It all started when I purchased a Morserino (<http://morserino.info/>). The Morserino is a Morse Code learning aid that has a number of unique features. For example, in addition to helping you learn the characters, it's also supposed to help you learn how to copy in your head. It also has a built-in touch keyer function, and a LoRa interface that lets you send and receive code from other Morserino units.

[[Image at <https://www.kb6nu.com/wp-content/uploads/2019/05/morserino-768x670.jpg> goes here]]

I'll be writing more about the Morserino in a future column, but let's get back to batteries. The kit did not come with a battery. Instead, it was suggested that one purchase a 600 mAh LiPo battery commonly used for powering drones. I found this battery on Amazon, and purchased a six pack of them, thinking that I'd find uses for the other five in some project or another.

[[Image at <https://www.kb6nu.com/wp-content/uploads/2019/05/tattu-3.7v-600-mah-battery-768x522.png> goes here.]]

Well, sooner than expected, I did find another application for one of the batteries. I'm building a little Arduino project for a client, and I reckon that this, or one with more capacity, will make a great power source for the project.

Now, I have two immediate challenges:

1. Figure out how to charge the battery.
2. Figure out how to connect it to the Arduino.

On the Morserino, the battery plugs directly into a connector on the bottom of the computer board (the white board with the LED display). I knew that connecting the 5V line from the USB connector directly to the battery was a no-no, but I'd lent out the Morserino to a friend, and I didn't have the schematics for the board. So, how they managed to charge the battery from the USB port was a bit of a mystery.

I emailed Willi, OE1WKL, the designer of the Morserino, and he sent me a wealth of information. There actually is a battery-management IC, the TP4054, on the board:

[[Image from <https://www.kb6nu.com/wp-content/uploads/2019/05/heltec-power-supply-768x327.png> goes here.]]

He also gave me the part number for the battery's mating connector. He said, "The mating connector for the Molex connector on the battery is a Molex 51006. It is sometimes referred to by vendors as 51005 female, but 51005 is the connector on the battery." You can, of course, buy pre-made cable assemblies on Amazon (<https://www.amazon.com/gp/product/B07P54QTR8>).

You can also buy lithium battery charging modules (<https://www.amazon.com/gp/product/B01LZSC7I8>). These modules have a TP4056 on them, which is similar to the TP4054. It's amazing to me that you can purchase ten of these things for less than seven bucks.

So, that's where I'm at right now. Once I get the modules and cables, I'm going to hook it all up and get the Arduino system running from the battery. The next step will be to integrate a small solar panel and run the whole thing from solar power, hopefully.

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Dan Romanchik KB6NU is the author of the KB6NU amateur radio blog (KB6NU.Com), the "No Nonsense" amateur radio license study guides (KB6NU.Com/study-guides/), and one of the hosts of the No Nonsense Amateur Radio Podcast (NoNonsenseAmateurRadio.Com). He often wonders if he can learn things fast enough.

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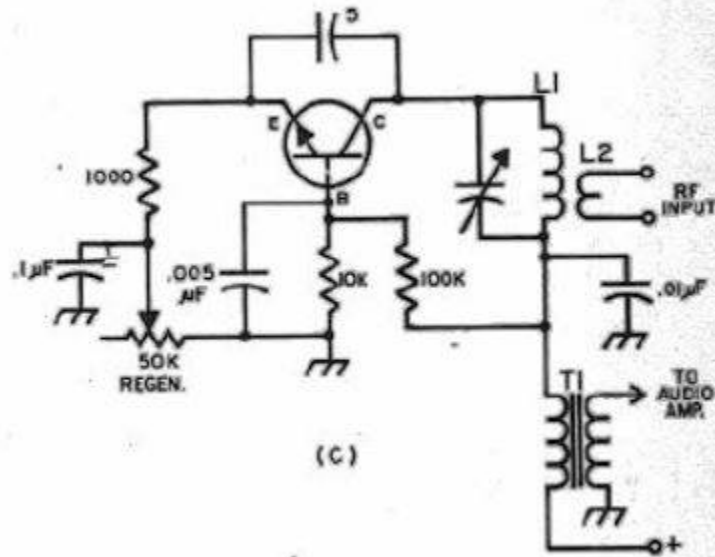


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Yavapai Amateur Radio Club — W7YRC Club Station Access List — Effective March 12, 2019

Permanent Station Access (defined by YARC role) —

Name:	Call:	Lic. Class	Notes:	Telephone:
Bill Noe	W7PVA	E	YARC President	710.6925 – Do not contact for access
Frank Bender	K8FB	E	Station Manager	379.5575 – OK to contact for access
Pete Morrison	K6VVR	E	W7YRC Trustee	899.8555 - Do not contact for access
Doug Freeman	KV8TD	E	N7GMH Trustee	759.0958 - OK to contact for access
Bud Semon	N7CW	E	ARES/RACES Dir.	899.7400 - Do not contact for access
Jim Zimmerman	N6KZ	E	Elmer Group	713.0542 - OK to contact for access
Art Protas	KG6AY	E	Elmer Group	227.2954 - OK to contact for access

Building Access for Other Reasons (includes station access) —

Donald Bauer	WB7TPH	E	VE Chair	775.4690 - Do not contact for access
Kathy Laing	KJ6KMK	E	Practice Exams	778.2526 - Do not contact for access

Rotating Access (changes every July 1st)

This category is limited and consists of volunteer members —

Rex Mauldin	N7NGM	E	Rotating Member	277.7164 - OK to contact for access
Mike Belanger	W1DGL	E	Rotating Member	420.0498 - OK to contact for access
Rob Redford	KG7LMI	G	Rotating Member	623.252.3980 - OK to contact for access
Tony Jackson	K6PSR	G	Rotating Member	562.644.0528 - OK to contact for access
David Hanson	W7BJ	E	Rotating Member	602.615.3444 - OK to contact for access

Note to YARC Members —

**For station access, first try to contact the Rotating Access members.
If you are not able to contact the Rotating Access members, then try to contact the other “OK to contact for access” members.**

Club Officers, 2019

Officer	Name	Call Sign	Email Address
President	Bill Noe	W7PVA	w7pva@arrl.net
Vice President	Joseph Thomas	KG6IDN	vice.president@w7yrc.org
Treasurer	Jim Fortney	K6IYK	treasurer@w7yrc.org
Secretary	Tim Norton	K7PVY	secretary@w7yrc.org
Director	Dave Erlach	W7VSX	w7vsx@w7yrc.org
Director	Ray Kolman	KI7COM	spudzman@gmail.com
Director	Sandy Meadowcroft	KF4JHC	sandymeado2@yahoo.com
Director	Kathy Laing	KJ6KMK	kj6kmk.yarc@gmail.com
Director	Mike Reid	N7IEP	n7iep@arrl.net
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