



YAVAPAI SIGNAL



The Yavapai Amateur Radio Club • Prescott, Arizona • DM-34 • Volume 28- No. 2 • February 2013

A Message from the President...



I hope you were able to join us for the YARC Party on January 26th. As I write this, it is coming together and looking like a really good time. I want to thank Pete, K6VVR, for chairing the event, and doing a great job.

Putting something like the annual party or Field Day together can be quite a task. Give Pete a pat on the back when you see him.

On the subject of Field Day, I would really like some input from members as to what you want out of this annual event. It falls on June 22-23 this year. Last year, YARC's Field Day was carried out at Granite Mountain Middle School. It was a social gathering, a chance to meet some interested visitors (and new members), a potluck, and (to a limited extent) it was an operating event. Several of our newer members had the chance to operate HF, which was a new experience. For those who attended, I think it was a good experience. But, now I would like to know what you want from Field Day. Please e-mail president@w7yrc.org with your input.

We have several volunteer positions that we need to fill. If you are interested in serving your club in a volunteer capacity, a quick e-mail to me will get you a list to choose from.

On a completely different subject, I was invited to talk about amateur radio on KQNA radio. Arts and Entertainment host(es), Sandy Moss and I talked about the world of amateur radio, Yavapai ARC, licensing and a few other things. It was the fastest 14 minutes I think I have ever experienced. The program "Q&A" with Sandy Moss, aired Monday, January 14th. It was a lot of fun. Perhaps some of you happened to hear it. This is the kind of outreach opportunity I would like to see our ambassadors involved in. Thanks, and see you at the meeting, February 7th. ■



Happy Valentine's Day



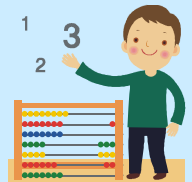
February Program



February's Program will be a presentation by Tom Fagan, ARRL Section Manager. Tom will choose the topic, and is an interesting speaker that you don't want to miss.

Membership Count:

1st Thurs. in December.....	181
Gain/Loss.....	+1
1st Thurs. in January.....	182



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Welcome to the Yavapai Amateur Radio Club

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

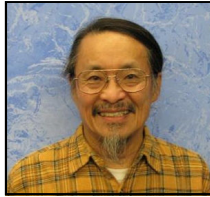
Membership in the YARC is open to any interested amateur or non-amateur alike. Dues are \$20.00/year (Full-time students \$15). The YARC meets at 7:00 p.m. local time on the first Thursday of every month in the Technology Room 404, at the Granite Mountain Middle School, 1800 Williamson Valley Road in Prescott. It is about ½ mile north of Iron Springs road, and all amateurs and non-amateurs as well are invited. Programs of interest are included as part of the meeting.

The weekly Net is held every Wednesday at 7:00 p.m. local time on 146.880- repeater. All amateurs are invited to participate, and visitors are always welcome.

The Yavapai County ARES/RACES Net is held on Monday nights approximately at 7:00 p.m. local time on the 145.290- repeater on Mingus Mountain. A PL of 127.3 is required.

Club Repeater

The YARC 146.880- repeater is located on the hill above Willow Creek road and requires a PL of 100.0 Hz. Our deepest gratitude to Bill Kafka, W2YAV for allowing us to acquire the original club repeater. ■



Minutes of January 3, 2013 Board Meeting at Granite Mountain Middle School, Prescott, Arizona

Present: WB7TPH, W7BJ, AE7CG, K6VVR, KD5VRW, AD7YR, and W7HAM.

The meeting was called to order by WB7TPH at 1805 MST.

Agenda:

1. Programs: at each general meeting, the subject for that evening's program and for the subsequent month's meeting will be announced. K7DF (ARRL AZ section manager) or his representatives may be a possible sources of speakers. The Brazil DX Convention could be a possible topic.
2. The YARC Board of Directors should conduct internal communication by email.
3. AD7YR volunteered to be YARC's parliamentarian for board and general meetings.
4. The awarding of lifetime YARC memberships was discussed, and past precedents have provided for the conferral of more than one such membership per calendar year.
5. Treasurer's Report: W7BJ has decided on the most desirable formats for treasurer's reports. He has reviewed prior YARC treasurer's reports from 2008 through 2012. He has posted the current report in the club newsletter, and attests that the figures reported therein are accurate. W7BJ is a Certified Public Accountant (CPA).
6. Each new incoming club officer has been provided with a manual of procedures appropriate to the office held.
7. Mailing List: Participation in the club's email list is optional. The list is to be used for the conduct of club business only. The list's administrator must act to prevent the dissemination of unwanted and irrelevant messages ("spam").
8. Expenses: Thirty (30) hard copies of the newsletter for January 2013 were printed. This is an unnecessary expense, as most club members have computers and can receive the newsletter in PDF format to read an/or print out. No hard copy newsletters should be sent out by conventional USPS mail. A small number may be printed out for limited distribution at general meetings for new members and visitors.
9. Training/Licensing Committee: WB7TPH has changed the name of the former Education Committee. The Training Coordinator is KD5VRW, and VE Testing Liaisons are WB9VGJ and WB7TPH.
10. Awards Committee: WB9VGJ and AB7NK.
11. Club Equipment Inventory: K6VVR and W7BJ will attempt to make an inventory of YARC equipment assets: what kinds of equipment belong to the club, and where such equipment is currently located.
12. Sharlot Hall Museum Operating Event: Each year the Granite Mountain Middle School Radio Club (K7GMG) operates a special event station at the Sharlot Hall Museum on or about February 14 to commemorate the admission of the State of Arizona to the Union. K6VVR and KB7TRE will supervise the student operators and help in setting up the station.

The meeting was adjourned by WB7TPH at 1855 MST.

Respectfully submitted by Loren Singh — AE7CG
YARC Secretary

Minutes of January 3, 2013 General Meeting

The meeting was called to order by WB7TPH at 1902 MST, and the Pledge of Allegiance was recited by all present.

All in attendance did self-introductions. Visitors were welcomed.

Members were directed to the January 2013 issue of the Yavapai Signal for minutes of the December 5, 2012 general meeting and the latest treasurer's report. K6UWV asked that his call sign be corrected in the treasurer's report.

New Members: Georgene Lockwood (no call), Joe Lupo (no call), Ronald Nelson (KCØTGG), and Richard Boller (AF6PE) were unanimously approved as new members of the club.

Committee Reports:

1. YARC Event Participation: WA6ZZJ approved of the name change of the committee from the previous ARES/RACES/Public Service designation. He mentioned upcoming events, and asked for participation in: the Sedona Marathon (Feb. 2); Whiskey Row Off-road Bicycle Race (Apr. 26-28); Whiskey Row Marathon (May 4); and MS-150 Ride the Vortex Bicycle Race in the Verde Valley (May 18-19).
2. Newsletter: AC6AA said that for members to receive the Yavapai Signal by email, their names and email addresses have to be on the club's email distribution list.
3. Patches, Shirts, and Badges: W7BJ said that patches in different sizes are available. There was no news to report about shirts. KF7MAU was not present and so there was no news to report about badges.
4. Club Repeater: K6VVR will test the antennas when the weather gets warmer.
5. Elmers: K7SEN has resigned as coordinator.
6. School Radio Club, K7GMG: KB7TRE reported that participation will increase after basketball season is over. The school club will be operating a special event station at Sharlot Hall Museum on February 14.
7. Fox Hunt: K6VVR reported that the next radio direction-finding activity will be on January 6.
8. Training/Licensing: The next VEC testing session will be at the Jeep Posse Building in Prescott at 0900 MST on February 2. Interested persons should register for the test on the club web site.

Old Business:

1. YARC Winter Holiday Party: K6VVR gave the last call for reservations for the winter party to be held at the Prescott Steak House on Miller Valley Road, January 26, 2013 from 1200-1500 MST. The cost is \$23 per person, and the deadline for reservations is January 10.

2. Mailing List: All YARC members who want to be on the club email distribution list must sign up on the club web site or sign the paper list circulated at the general meeting. WB7TPH said that about 65 members were not on the list and that the club is ceasing sending out paper copies of the Yavapai Signal by conventional USPS mail.
3. YARC Signs: Mounting of the metal club signs is pending at the entrances to the Granite Mountain Middle School campus and parking lot.

New Business:

1. Program Committee: K6VVR, WB7TPH, AD7YR, and KD5VRW are currently serving on this committee.
2. Training/Licensing Committee: WB7TPH, WB9VGJ, and KD5VRW are currently serving on this committee. They recognize that teaching and testing are separate functions and responsibilities, and that coordination of these activities must remain informal.
3. Event Committee: KE7NAP and WB7TPH are currently serving on this committee. They are concerned with organizing club participation in Statehood Day, ARRL Field Day, and other activities.
4. YARC Ambassadors Committee: WB7TPH is currently a "committee-of-one." This committee is concerned with doing public relations outreach to spread the word about YARC and amateur radio. WB9VGJ suggested that a standard PowerPoint-type presentation be developed.
5. Awards Committee: WB9VGJ and AB7NK are currently serving on this committee.
6. Sharlot Hall Operating Event: February 14, 2013.
7. ARRL Field Day: June 22-23, 2013.
8. Club Equipment Inventory: K6VVR will lead the effort to identify what equipment belongs to the club; where such equipment is located; and who has possession of it.
9. Presentation of Awards: Lifetime memberships were awarded by acclamation to David Passell (K6UWV) and Richard Hughes (W6CCD) for their selfless service to the YARC.

The business meeting was adjourned by WB7TPH at 1948 MST. The 50-50 drawing was won by WA6AQQ. The speaker of the evening was K6VVR, who spoke about "Radio Direction Finding: Fox Hunting."

Respectfully submitted by

Loren Singh — AE7CG

YARC Secretary

**YAVAPAI AMATEUR RADIO CLUB
COMPARATIVE FINANCIAL STATEMENT
FOR THE YEARS ENDED DECEMBER 31**

		GENERAL FUND	2012	2011
INCOME				
	Club Dues		2,415.00	2,250.00
	Donations & Equipment Sales		82.50	370.00
	Shirts, Patches & Decals		45.00	124.00
	Raffles, including Swap Meet	1,339.00		1,181.00
	Less: Paid out	602.00	737.00	590.00
	ARRL Membership	602.00		711.00
	Less: Paid out	567.00	35.00	586.00
	Annual Party	1,540.00		2,871.00
	Less: Paid out	992.69	547.31	2,238.05
	TOTAL INCOME		3,861.81	4,092.95
EXPENSES				
	Field Day		239.63	331.47
	Statehood Day		70.00	190.94
	NRA Day		70.00	60.80
	ARCA Dues, Donation, Info		7.50	135.00
	Refreshments		222.37	204.50
	Printing		322.37	344.22
	Postage & Box Rental		172.80	194.00
	Insurance		200.00	200.00
	Office Supplies		208.39	57.26
	Training Materials & Supplies		100.00	54.46
	Web Site		83.40	143.40
	Miscellaneous		134.72	110.00
	TOTAL EXPENSES		1,831.18	2,026.05
	NET INCOME		2,030.63	2,066.90
	Cash in Bank – Beginning of Year		5,693.09	3,626.19
	Cash in Bank – End of Year		7,723.72	5,693.09

		REPEATER FUND	2012	2011
INCOME				
	Club Dues		270.00	248.00
	Donations		92.00	26.00
	Prior year adjustment			(20.00)
	Interest Income		1.65	1.47
	NET INCOME		363.65	255.47
	Cash in Bank – Beginning of Year		1,467.39	1,211.92
	Cash in Bank – End of Year		1,831.04	1,467.39

Monthly YARC Foxhunt



By John Broughton, WB9VGJ

The monthly foxhunt was held January 6. Jerry, KF7FPD, and Pete, K6VVR hid the transmitters. They hid the transmitters adjacent to the Arizona National Guard Armory on Heritage Park Road of Willow Creek Road north of Willow Lake.

We had a good turnout -- the most hunters for the past several months. We had four teams hunting:

1. Jim, WB7UZV, Diane, KE7ODP, and Max, KF7KFN.
2. Mike, WA7ARK, and Ken, KE7KWH.
3. Dave, W7BJ and Bryan, W7BNW.
4. Jeff, WB7RFY, and I.

It was a very good hunt. The three teams that found the transmitters all arrived at the hiding location within several minutes of each other. It took about an hour for them to hone in on the location. Jeff and I took readings at several locations along our route as we hunted the transmitters and got readings that were roughly the same signal strength in opposite directions a couple of times. With reflections off hills and such, it made the hunt interesting and none of the teams made a beeline from the starting point to the transmitters.

Jeff and I were fortunate in finding the primary transmitter first and winning the hunt. Brian and Dave were a close second, finding it just two minutes after we did. That was ironic as last month Jeff and I came in second by two minutes.

Unfortunately, Mike and Ken were unable to find the transmitters in the allotted time. However, they joined us for our social get-together at Denny's after the hunt.

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

My pictures of the hunt can be seen at:

<http://tinyurl.com/atckog4> ■

Be My Valentine

Need Cards Checked for ARRL Operating Awards?

Jim Zimmerman, N6KZ can check your QSL cards for DXCC, WAS, VUCC, WAC, etc.

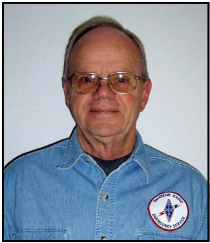
For information contact Jim at: (928) 713-0542.

Jim's QTH is at: 778 Grapevine Lane,
Prescott, AZ 86305.

Club contacts - At a Glance

President - WB7TPH	president@w7yrc.org
Vice President - KE7NAP	vice.president@w7yrc.org
Secretary - AE7CG	secretary@w7yrc.org
Treasurer - W7BJ	treasurer@w7yrc.org
Board Member - AD7YR	cgrobeck@gmail.com
Board Member - W7HAM	smokey7@cableone.net
Board Member - WB7RRQ	rosevear520@cableone.net
Board Member - KD5VRW	rnpublic@sbcglobal.net
Arizona WAC Administrator	az.wac@w7yrc.org
Ask Elmer for Help	ask.elmer@w7yrc.org
Badges	badges@w7yrc.org
Field Day Chairman	field.day@w7yrc.org
Fox Hunts	fox.hunt@w7yrc.org
License Classes	classes@w7yrc.org
Mail List	yarc_mail@w7yrc.org
Membership Application	membership@w7yrc.org
Net Manager	net.manager@w7yrc.org
Newsletter Editor	newsletter@w7yrc.org
Program Inputs	programs@w7yrc.org
Public Information Officer	pio@w7yrc.org
Public Service - DEC	public.service@w7yrc.org
Repeater Trustee	repeater@w7yrc.org
Special Events	special.event@w7yrc.org
VE Test Liaison	testing@w7yrc.org
YARC Party Coordinator	yarc.party@w7yrc.org
Information	info@w7yrc.org
Webmaster	yarc@w7yrc.org
Webmaster	w7yrc@w7yrc.org
Webmaster	webmaster@w7yrc.org

YARC EVENT COMMUNICATIONS...



By Lloyd, WA6ZZJ

The first scheduled YARC communications event of the year, the Sedona Marathon, takes place on Saturday, February 2, 2013. Once again, we coordinated with the Verde Valley Amateur Radio Association (VVARA) to do communications for this event. Operators working the event are about 50/50 between the two clubs making it, indeed, a dual effort. A full report on this event will be in next month's newsletter.

The YARC Event Communications schedule so far for 2013 is:

April 26 - 27 - 28, 2013 - The Whiskey Off Road Mountain Bike Event

This will be the third year for this being a three day event. Last year we used 18 operators on Friday and 25 each day Saturday and Sunday. Signups are already under way and they will continue at the February, March and April YARC meetings. Check your calendars and get your name on the list. You don't have to sign up for all three days. Pick a day you are available to operate and let me know.

May 4, 2013 - The Whiskey Row Marathon

One week later will be YARC's long standing participation in the Whiskey Row Marathon in support of the Prescott YMCA. For this event we typically use 18 to 20 operators. There again, some signups are already in and will continue at the February, March and April YARC meetings.

May 18 - 19, 2013 - The MS-150 Ride the Vortex Bicycle Event in the Verde Valley

This event is currently in the very early planning stages and signups will begin shortly. Being a two day event we will once again need 23 to 25 operators per day. This is another event that will be coordinated with the VVARA.

To sign up for the above events, email me direct at: wa6zzj@arrl.net

OPERATING AT YOUR NEXT SPECIAL COMMUNICATIONS EVENT

Arrival - Plan to arrive early. Your location or staging area may be unfamiliar and you will need the extra time. This will also give you time to set-up and checkout your equipment before the event starts. There are also times when your location may have limited access after a certain time. Being early gets you in before the roads are closed. In most cases the event communications coordinator will announce a time for you to be on site.

Check-In - Check in with net control when enroute and when you arrive at your location. This lets the net control know you are on site and the quality of your communications. In some cases moving about improves communications. If this is the case, remember the spot and use it when you need to communicate with net control.

Traffic Control - Most, if not all, special events are run as controlled nets. This means that all communications are directed through net control. The net is generally very busy handling traffic. If you need to contact another station, make the request through net control. Net control will hold traffic and give you permission to contact your party. At some events a secondary communication frequency is set up for this very thing. Always give the net control plenty of time to respond, as net control is usually a very busy place.

Keep your traffic to a minimum. Give all the details and be precise at the same time. Think about what you are going to say before you transmit. This will maximize the net to emergency traffic if needed and at the same time maximize your battery life. Always be sure to contact net control before you pass your traffic. You want to make sure net control hears and understands your message. As we have heard many times before, listen, listen, listen. If an emergency occurs or the net becomes congested or the noise level at your location increases, listening becomes ever so important. You don't want to miss a call from net control.

Tactical Calls - A number of special event nets use tactical calls. These allow an easy identification of a location or function. "Sag 1" and "Aid 2" are typical of tactical calls used at events. Know your tactical call and listen for it. **In closing your transmission always use your FCC call sign.**

Equipment Use - Choose equipment that works well for public service events. Ease of use should be a prime consideration. Will it provide the communications capability to support the event? The event is not the place to try out that new radio or set-up. Try it out before the event to iron out all the bugs and get the operation down pat. Create a "cheat sheet" to help remember key features for your radio.

EQUIPMENT

Batteries - Do you have a spare battery? Is it charged? If you have the alkaline battery case, do you have extra batteries for it? If you use gel-cell to power your base set-up will it run for the entire event? Make sure your batteries are charged up at the start of the event. You may never know when the event may become longer than anticipated.

Power Cords - Various power cords and adapters can turn a bad situation into a good one. RACES standard connections (Anderson Power Poles) are preferred on all equipment. Make sure your kit is up to the situation. A cable with "gator" clips on one end is very handy for connecting to the car battery in a pinch. The cigarette lighter adapter is very handy if your position suddenly needs to become mobile.

Antennas - That standard rubber ducky is not necessarily the best antenna for the task. Your favorite repeater may not be the one used for the event. In fact, a number of events are run simplex. Invest in one of the extended performance or a telescoping antenna. If you are a mobile or a fixed station invest in a 5/8 magnetic mount or pole mounted antenna. A good antenna does more than more watts in most cases.

Headsets - At a number of events the noise level is very high. The event sponsors like a lot of loud music, bands and other methods of making noise to enhance the participants enjoyment. This though is counter-productive to the communicator. In situations like this the headset is a necessity. Make sure it works with your equipment.

Note Taking - Net control is not always the one who needs writing materials to keep track of things. All positions need writing materials. Remember the description of the missing runner? A pencil is preferred over a pen (remember the weather) and a note pad should be a staple in your equipment kit. The 4" by 8" "reporter's notebook" is one of the handiest due to its size. Mechanical pencils

don't need sharpening and are preferred over wood-lead pencils. At some events, various forms are provided. These range from missing person's reports to log sheets.

Niceties - Dress for the weather. Carry wet weather gear or additional outer garments if needed to suit the conditions. Aspirin, antacid tablets, prescription medicine, sunscreen and insect repellent should be part of everyone's personal 'go-kit'. Drinks, especially water, and snacks should be included since it may be a long time to lunch. A small, insulated container is handy to carry your snacks and don't forget the lawn chair! ■

YARC Officers for 2013

President

Don Bauer, WB7TPH
president@w7yrc.org

Vice President

Ellis Rackoff, KE7NAP
vice.president@w7yrc.org

Secretary

Loren Singh, AE7CG
secretary@w7yrc.org

Treasurer

David Hanson, W7BJ
treasurer@w7yrc.org

Board of Directors (includes Club Officers)

Creighton Grotbeck -- AD7YR

Ralph Gendron -- W7HAM

Bob Rosevear -- WB7RRQ

Roger Nash -- KD5VRW

Newsletter Editor: Joe Oliver, AC6AA

Upcoming Events

- **February 2, 2013** - The Sedona Marathon.
- **February 9, 2013** - VE Testing at Jeep Posse Bldg.
- **February 15 & 16, 2013** - Yuma Hamfest and Arizona State Convention.
- **April 26, 27 & 28** - The Whiskey Off Road Mountain Bike Event.

Using a Mac in the Shack

By Dan Romanchik, KB6NU

A couple of years ago, I decided to switch to the Mac for business use. (I am a freelance website developer.) I haven't regretted it for a second. The thing just seems to work better.

Last October, I decided to switch to a Mac in the shack and purchased a used, iBook G4 Mac laptop. Unfortunately, I can't say that I've never regretted this move. The reason I sometimes regret this choice is that there just aren't as many ham radio programs available for the Mac as there are for the PC, and those that are available are either more expensive than their PC counterparts or don't work as well.

For example, let's take a look at logging programs. When I first started looking, I found one that was kind of expensive (MacLoggerDX - www.dogparksoftware.com/MacLoggerDX.html); one that was free, but didn't want to work so well (RUMLog - <http://www.dl2rum.de/rumsoft/RUMLog.html>); and one that worked OK and cost somewhere in between the first two (*Aether* - www.aetherlog.com/). Considering that there are at least a dozen logging programs that run on a PC, this was slim pickings.

I ended up purchasing *Aether*, but was never very happy with it. For one thing, it took forever to do any kind of sort or look up previous QSOs. Another pain was that it carried over none of the information from the previous contact, so you had to enter all of the information from scratch, even if you didn't change frequencies or bands. It also had an odd way of doing notes about a contact, and I was disappointed to find out that it didn't import the notes from the ADIF file I created from the N3FJP logging program I used previously.

For PSK, It's CocoaModem

I had much the same experience when looking for a PSK31 program. Instead of a wide variety of PC PSK programs, I only found a couple of Mac programs that decode PSK. Fortunately, I am much happier with my choice here (cocoaModem - homepage.mac.com/chen/index.html). It's a great program, with a polished user interface, and it's free, to boot.

The only problem with cocoaModem is that it doesn't support the wide range of digital modes that some of the PC programs do. One I'm interested in is SSTV. Unfortunately, cocoaModem doesn't do SSTV.

A Happy Ending

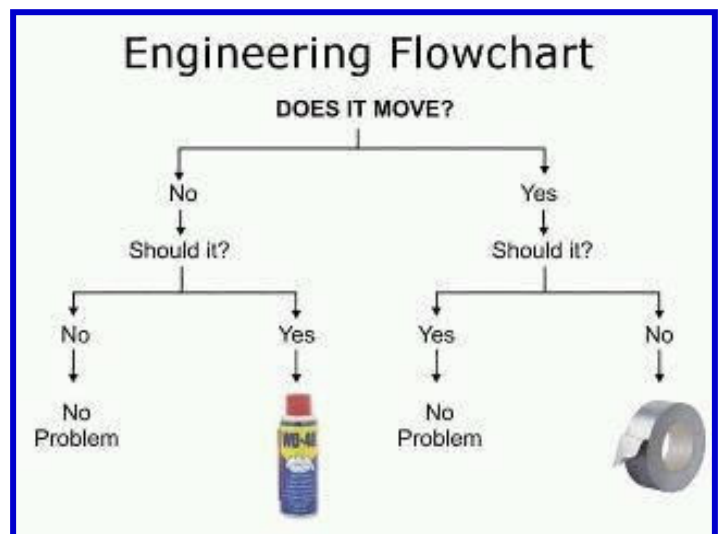
Well, a couple of weeks ago, I'd had enough of *Aether* and decided to start searching for logging software again. Since RUMLog was still free, I decided to give the new version (v 3.0, March 15, 2008) a go. I'm happy to report that this version likes my computer a lot better, and I like using it a lot!

One of the coolest things is that it did import the notes from my N3FJP ADIF file properly. So, now, when I type in a call sign, the program searches the database, finds all the previous contacts I've had with that station, and then displays them in spreadsheet style WITH the notes. If I've taken notes about a previous conversation, I can pick up right where I left off. Very cool.

It also has a very nice way of showing you what countries you've worked, on what bands you've worked them, and whether or not you've QSLed that country or not. Not only that, it shows what type of QSL you have, either a paper QSL or a Logbook of the World (LOTW) QSL. And, after you supply your user ID and password, it will download your LOTW QSLs and update the appropriate QSO records. Very cool!

Still unresolved is what to use for contesting. None of the programs I've seen so far are useful for contesting, and I think that what I will end up doing is using my old PC laptop running N3FJP or N1MM software. I'm not a big contester, so I think I can live with that.

One thing is for sure--I'm not going back to the PC aside from some niche applications like contesting. The Mac's ease of use and ease of setup has won me over. For information on even more ham radio software for the Mac, go to www.machamradio.com. ■



License Testing:

By Donald Bauer, WB7TPH



Upcoming license testing sessions are scheduled for:

- Saturday, February 9, 2013, 9:00 AM, Jeep Posse Building
- Friday, May 3, 2013, 6:00 PM (Tentative)
- Friday, August 2, 2013, 6:00 PM (Tentative)
- Saturday, November 2, 2013, 9:00 AM, Jeep Posse Building

Visit the club website www.w7yrc.org for more information and a map.

Pre-registration is highly recommended, and can easily be accomplished on our website. Deadline for pre-registration is 48 hours prior to test.

Examination fee is \$15.00. (make checks to ARRL/VEC. If cash, correct amount is appreciated).

Note: If you fail an exam, and sufficient time remains, you may re-take the exam. An additional fee will apply. (Available time is at the discretion of the VE team leader). ■

Need a Hand?



If you need assistance, we want to help you. If you are just starting out in ham radio, or simply have run across something that you could use a hand with... technical assistance or answers to questions about the Yavapai Amateur Radio Club, are available from knowledgeable club members.

Don't Hesitate to Ask for Help!!

CALL:

Bud Semon, N7CW at: (928) 771- 8267

or

Jim Zimmerman, N6KZ at (928) 713- 0542

Like to be an "Elmer" ?

If you enjoy helping others and are interested..

Contact Bud, N7CW for further information.

(928) 771- 8267

2013 Arizona State Convention

9th Annual

Yuma Hamfest

Yuma, Arizona

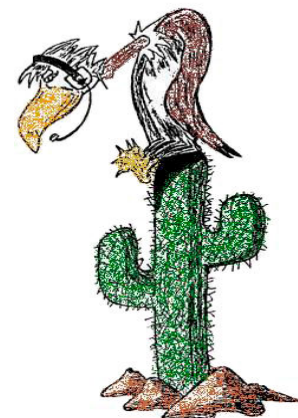
Feb. 15 & 16, 2013

Yuma County Fairgrounds

2520 East 32nd Street, Yuma, Arizona

www.yumahamfest.org

Check the Website for Additional Information
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National Radio Company

From "Boat Anchor Manufacturers", at <http://www.ominous-valve.com/ba-mfrs.html>

Classic BA #3:
National HRO-60



"Tuned to Tomorrow," National had a lot of yesterdays. It started in 1914, as a toy company, and moved gradually into the radio business in the twenties. National started out making premium parts for other companies, an approach that led to their traditional emphasis on quality. National radios never looked very fancy. They were just good.

After selling advanced HF/VHF radios to airlines and the government, National entered the ham market with a popularly priced line of regenerative receivers. Then, in 1935, they introduced our third classic boat anchor, the mighty, wide-coverage HRO. This series survived, with circuit refinements, until 1964, and it was popular and respected the whole time. That's a long run for a radio that never really stopped looking like an orange crate!

The HRO had a number of special parts, as designed by none other than James Millen, most apparent being the huge, steel, tuning dial that came to symbolize National radios. This dial had little windows. When you turned it,

the 100-kc (no Hertz yet!) would increment inside the windows, in the dial, while you read off the individual kc on the dial's outside. This awesome mass of chrome and steel looked like an ash tray, and it was made like the Great Pyramids.

Even more remarkable was the band switch. Millen had a hand in here, as well. None of these crummy wafer switches, or coil banks, or turrets to oxidize and go out of alignment. To change bands on any HRO, the operator opens two spring-loaded clamps that could go on a bank vault, and pulls out a coil array something like 3 inches by 6 inches by 4 inches deep. Basically, you disembowel your radio. The huge coils are slid into the shelf box that lives next to every HRO, the proper new ones are slid out of the box, at which point you stick the new assembly back into the radio, where it seats with a satisfying ker-THOK. The spring clamps are snapped shut, and away you go. Now *this* is a radio!

Millen, a mechanical engineer, moved on to his own parts company, which ran its whole catalog in the *Radio Amateur's Handbook* until the ARRL dropped all the ads. His stuff always looked pretty dramatic; the kind of technology that won World War II. Not flashy; just immortal.

The newest and best of the tube HROs are the HRO-50 and HRO-60. Either one is made like a locomotive, and either will make yet another fine addition to the boat anchor collection, though it might also get you a divorce. They're rectangular boxes, heavy, heavy, heavy, with ominous slits along the top for the sliderule dial scale, and that redoubtable HRO tuner just below. There's an S-meter on the left, and the usual plethora of dials and knobs. Do get the matching speaker, if you can.

The HRO made the solid state transition with the fully synthesized HRO-500. It still had the classic HRO dial, and very wide coverage from a dizzying 5 kHz to 30 MHz. It is reputed to be a very good radio, in fact a classic, but I've never seen one. It came along too late to save National's general-coverage line, and not that many were sold.

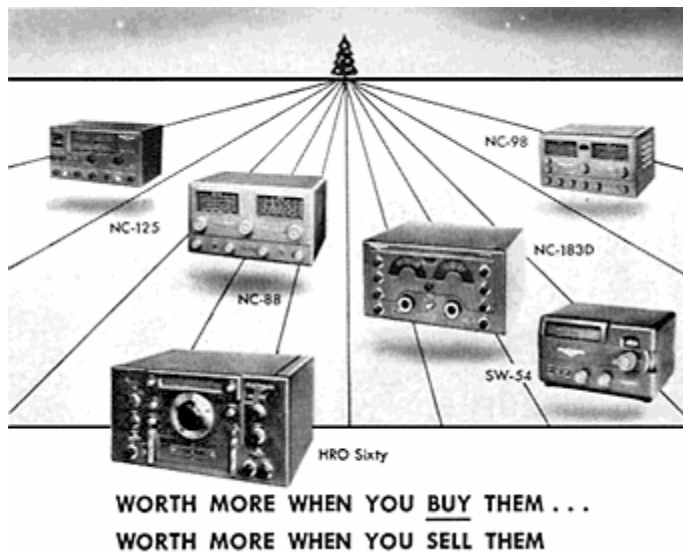
Less well known is the last model with an HRO prefix, the rare HRO-600. This is a solid state, very high-end (\$5500!) military-grade receiver aimed more at the surveillance and maritime markets.

One of National's few transmitters was the NTX-30, made right before the war. It's supposed to be a nice rig, but I've never seen one. Power output was 30 watts plus, on four bands, from a single-ended pair of 6L6GCs in parallel. Doubler/driver stages are also 6L6s. CW only, but there was an input for a modulator. It's all rather beefy looking, in one of those black boxes that says "old transmitter" at a glance.

In the 60s, National made a highly regarded NCX-5 transceiver with a mechanical digital dial, and its companion NCL-2000, a 2000W PEP desktop linear. Both units had a nice, purposeful look.

The linear ran National's patented class AB2 circuit, and it quickly became known for a lot of punch given its compact

size and relatively affordable price just under \$600. PA tubes were ceramic 8122 tetrodes, costing only \$31 each at the time. Here was an honest, full-power amp that you could re-tube without taking out a second mortgage. National sold something like 5000 of these linears, many of which are still in use today. It is said that component life is very good if the amp is run at "only" a kW out, maybe saving the full 1300 watts for pile ups.



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Receiver Features greatest sensitivity of any ham receiver at any price. 20 monthly payments \$18.31. \$37.00 down. Cash price \$369.95

Like Hallicrafters, National hit the ground running after WWII with a whole line of short-wave receivers for the consumer market. Smallest and cheapest, at fifty bucks, was the "Mighty Midget" SW-54, an 11" by 7" by 7" general coverage box with built-in speaker and obviously aimed at the same low-end market as the Hallicrafters S-38 series. In the 60s, about when the S-38 was restyled into the sleeker S-120, National did similar with their \$60 consumer-market NC-60.

Over on the amateur side, National came out in the mid 50s with the NC-300, another whopping BIG radio (64 pounds), with good mechanics, and a band switch that went CLUNK into place. Its design followed a well-publicized "dream receiver" promotion, and it was definitely a high-end (\$400) unit that the operator wouldn't get tired of. While sliderule dials were sometimes woefully inadequate on ham band radios, this one was huge, and extremely usable.

220 MHz. These were switched in from the receiver, and had their own scales on the big dial. Electrically, all three down-converted to a 30 MHz top band on the main set, which served as a tunable IF.

The NC-300 was extremely sensitive, and generally a real good radio for its time. It had a matching speaker, the NC-300TS, with a very cool thunderbolt "N." There was also a similar-looking case that held up to three accessory VHF convertors, for 6, 2, and (believe it or not)

The NC-300 was followed in 1958 by the NC-303 (\$450), an improved version of the 300 which still shows up on a lot of all-time favorite lists right next to such legendary iron as the R-390, 75A-4, and SP-600! It had more filters, two different noise limiters, and a built-in Q-multiplier/ notch filter. The NC-303 lasted until the end of the boat anchor era in 1962.

The last National tube box that I know much about is the later NC-270. Advertised in the mid-60s as "the red-hot set with the cool blue look," it was decidedly slimmed-down and "modernized." It had a multi-band sliderule dial a la Hallicrafters and a "cosmic blue" case that tilted up on a "flip foot" for ergonomics. I got to use one of these. It's a good enough set, once again with nice big controls that click satisfyingly into place, but otherwise as a mid-price box it can't compete with the 300 series.

National left the ham business soon after, surviving on government contracts until going chapter 11 in the 80s. It hung on, barely, until 1991, when the last vestiges were sold off in an IRS foreclosure. ■

Area Repeaters

Weekly Breakfasts



Wed. Morning Breakfast:

7:00 a.m. at

Iron Horse Restaurant

(Hwy 89 in Chino Valley)

(N 34°43'56.5" W112°27'15.4")

informal – all are invited

Breakfast at Masonic Lodge: 3rd Saturday of each Month at 9:00 a.m.

(1280 Willow Creek Road,

2nd Floor; above Bank of America)

informal – all are invited

* Location data (per WGS84) provided

by Fred Zimmermann, N7PJN

Freq.	PL	Location	Owner/ Club	Auto- Patch	Links	Vo IP	Notes:
52.560-	100.0	Mt. Union	N7NGM			IRLP	Node 3301
144.390	Simplex						APRS- www.aprs.fi
145.290-	127.3	Mingus Mtn.	K7YCA				ARES/RACES
145.350-	162.2	Wildflower	W7QHC				Dawn
145.600	Simplex					Echo	Node 266053
146.760-	131.8	Hayden Peak	N7SKO				WECOM INC
146.780-	91.5	Bill Williams Mtn.	K7NAZ			IRLP	BWMRC LITZ, 3178
146.880-	100.0	Prescott Heights	W7YRC				YARC
146.920-	162.2	Mount Ord	W7MDY				ARA
146.980-	162.2	Mt. Elden	W7ARA				ARA
147.000+	162.2	Mingus Mt.	K7MRG				MMRG
147.140+	162.2	Mt. Elden	W7ARA				ARA
147.220+	162.2	Mingus Mtn	W7EI				VVARA LITZ
147.260+	103.5	Mt. Union	K7YCA				ARES/RACES
147.260+	127.3	Mt. Francis	K7YCA				ARES/RACES
147.360+	162.2	Mt. Ord	W7MDY				ARA
224.080-	156.7	Mt. Union	KJ7DX				Desert Intertie
442.150+	100.0	Mingus Mtn	WA7UID				MMRG
448.475-	100	Mt. Elden	W7ARA				ARA
448.875-	100.0	Mt. Elden	W7ARA				ARA
449.250-	192.8	Chino Valley	K7POF				
449.675-	88.50	Prescott Airport	WB7BYV		Linked to P Mtn.		
449.750-	123.0	Bill Williams	K7NAZ		Linked to Win-Sys		
927.0875-	151.4	Mingus Mtn	WB7BYV				
927.3875-	151.4	Prescott	WB7BYV			Echo	ARA

Y.A.R.C. IRLP NODE

Node Number 3182

146.100 MHz No PL Tone



T-Hunt Frequencies:

Primary - 145.100 MHz

Secondary - 146.565 MHz

For more Repeater Information & Listings refer

to:

- www.w7ara.org/Web/
- www.azrepeaters.net
- www.azfreqcoord.org/listings.htm

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Many thanks to Dick Hughes, W6CCD, our Webmaster

