



YAVAPAI SIGNAL



The Yavapai Amateur Radio Club • Prescott, Arizona • DM-34 • Volume 23 – No.7 • July 2008



2nd Annual Prescott Hamfest hosted by YARC / VVARA

By Patti Halgunseth, KD7VBG

We held the second annual Prescott Hamfest on Saturday May 31st, at Granite Mountain Middle School. The event again hosted by the Yavapai Amateur Radio Club and the Verde Valley Amateur Radio Association. I believe this improved from last year with some more vendors and attendees; everyone seemed to have a good time. Word around was vendors had a good show, and were pleased with what they made. RF Stuff was in attendance again this year and had a good day. We had some more vendors that showed up that usually attend other Hamfests throughout the state. No one had complaints and everyone enjoyed the day; the weather was good, not overly hot. The day started at 6am for setup and started for buyers at 8am. We had coffee, donuts and hotdogs for lunch -- all enjoyed the food and fun.

I do believe we had more in attendance than last year, with the parking lot being full around 8am with buyers and vendors. We did send some people to the other parking lot, but all worked out with people coming and going so that parking was handled. Again this year we had VE testing, and there were quite a few people that attended and got their license or upgraded. We also had the ARES Vehicle (MARC) and we ran the talk-in from there with a very nice brochure table setup just outside. Also this year, we had a raffle with some nice prizes.

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YARC Officers for 2008

President	Vice President
Terry Pemberton, KB7TRE kb7tre@cableone.net	Jack Ragen, W3IVQ ragen@cableone.net
Secretary	Treasurer
Jeff Hanna, WB7RFY jeff668@commspeed.net	Patti Halgunseth, KD7VBG kd7vbg@cableone.net
Board of Directors (includes Club Officers)	
John Broughton – WB9VGJ	
Tom Griswold -- N6LSA	
Richard Bozeat – KE7DTR	
Walter Schumann – KF6SPS	
Newsletter Editor: Joe Oliver, AC6AA	

This event keeps growing year by year and again we are learning things to do and change or improve. We will again soon be making plans for next year's event to make it bigger and better. All seemed to have a good time and enjoyed the day. I wish to thank all those who helped out to make this event a success, and hope to see everyone next year.

■
Patti Halgunseth
KD7VBG

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 June 5, 2008 Board Meeting



Meeting was called to order by the President, KB7TRE at 1825 hrs.

Also in attendance, KE7DTR, N6LSA, W3IVQ, KD7VBG, & WB7RFY.

Program committee reports schedule secured through October, Nov & Dec 2008 still open.

Hamfest of 31 May to be reviewed and file assembled to facilitate/improve next years event.

Field Day/Club Picnic and associated activities reviewed, sub-committees discussed. Details need to be finalized at tonight's meeting.

ARCA is requesting a publishable contact person for each club, will check with WB6ODR (delegate) to assure agreeability before response.

On motion of KE7DTR, second of W3IVQ, board meeting adjourned at 1857 hrs.

Respectfully submitted,

Jeff Hanna, WB7RFY

YARC Secretary

Minutes of June 5, 2008 General Meeting

Meeting was called to order by the President, KB7TRE at 1903 hrs.

Following the Pledge of Allegiance, introductions were made.

Attendance: 67 of whom 45 signed in. Many guests including Ken Edwards, N6KBI; & Sue Edwards, KC6WCA.

On motion of WB7RRQ, second by N6LSA, and no dissenting votes: William Taylor, KE7SBJ; Jim Chaney, KH7WW; Richard Myers, KD7DGS; Roger Nash, KD5VRW; Donald Moore, W6DMM; & Hunter Lienau, KE7TWW(T) were accepted into the membership.

Minutes from 01 May, 2008 were accepted as published.

Treasurer's Report was accepted as read.

Committee Reports:

ARES/RACES: WA6ZZJ updated on June training on Go Kits and has received formal thanks from YMCA for communications related to Whiskey Row Marathon. Limited events scheduled until flurry of activity resumes in September. KC7CBK reported on planning for the Prescott Cycling Club Loop Challenge. Please note that any individual who offers a ride to the 'public' during public service events does so of their own accord without club approval or consent.

Newsletter: AC6AA thanks all who have contributed, and encourages more submissions.

IRLP: W7JLC reports Glassford Hill site is being well utilized, no current plans of change.

PIO: WB7RRQ is pleased Hamfest

Membership Count:



1st Thurs. in May.....144

Gain/Loss.....-2

1st Thurs. in June.....142*

* Includes five 3-month memberships

announcements were aired in both Prescott and Verde Valley areas by Yavapai Broadcasting.

Patches: are now available in normal and smaller format from KD7VBG, \$ 3.00ea.

Shirts: are going fast, will have more on order reports W6CCD.

Badges: custom club badges are available through Bob, WB6ODR for \$6.75. KD7YEG & WA7ZGK are ready for pick-up.

VE Testing: KA7JAS reports results from May 31 session.

Classes: are next planned in September; tentative date is 9/27 for Technician. W7JLC requests additional members consider assisting as volunteer instructors.

School Groups: KB7TRE notes school year's successes --club call sign K7GMG and graphics on shack door. N5RO notes that next school year W7BMB will have a designated room as well; demos to new students even captured attention of upper grades.

N5RO offers to coordinate club starts at the area high schools if members can staff and support. With budgetary restraints, we (Hams) are in the best position to assure exposure to science and technology in local schools. 'It's time to give back', and can be fun and rewarding.

ELMER: KA7JAS reports A-OK; was recognized for all recent work to benefit school clubs, new licenses and YARC.

Refreshments: K6UWV encourages recycling after enjoying spread of treats and drinks available.

Young Hams Net: KI6AHH would like club to coordinate display at

Chino-Fest and/or other suitable events in 2009.

Programs: for rest of 2008 were outlined by KE7DTR.

OLD BUSINESS

Hamfest 2008 was a fun success. Ideas to improve next year include: Earlier close, most sellers packed up about noon; suggest 1:pm wrap-up. Accommodate limited tailgaters, perhaps a row of designated spaces. Space size to expand for tables, approximately 15' x 15'. Attempt to get additional commercial vendors. Attendance was up from first event last year. Need to encourage additional sellers, both personal and commercial. Input requested from co-host VVARA.

Field Day: June 28, 29. Set-up starts at Watson Lake ramada about 6:00 am Saturday, with operating to begin at 11:00 am until 11:00am Sunday, with tear down until completed and clean Sunday afternoon. Will determine entry class based on available operators. Sign-up sheet available at meeting, or A S A P c o n t a c t P a t t i , KD7VBG@cableone.net to claim your operating hours. W7YRC will be Field Day call sign.

Picnic Activities in conjunction with Field Day, W5VJH and food committee suggests serving from 11:00 am until 3:00 pm; clubs will provide meat; individuals please provide own drinks (non-alcoholic) and bring side dish/salad/dessert item for buffet if you like. Also noted that it would help if everyone provided their own flatware/utensils.

K6VVR will be conducting a close in fox hunt; WB6ODR will post coordinates of some special geo-caching opportunities, and several kayaks may be available for excursions, so be sure to bring your t-hunting gear and GPS units too.

NEW BUSINESS

Mentoring Program in Development. KE7NAP has requested and volunteered to coordinate. More at July meeting.

Interest in window decals? Was discussed earlier in year; KB7TRE to receive quotes for member review.

Request from ARCA to designate a publishable contact point. WB6ODR as club delegate agrees to further his responsibilities.

Antenna Bill stalled in Jack Harper's Senate Committee again reports KV8TD, who encourages any members residing in his District 4 particularly to challenge Senator Harper and express your opinions on the antenna bill.

On motion of N6LSA, second of K6VVR and no dissenting votes, the honor of Life Membership in YARC is conferred to MARY VINCE, AB7NK, in recognition of extensive work in coordinating club VE program and advancing Amateur Radio.

Lengthy discussion on program topics resulted in the following Policy Statement suggested by N6MY, 'To focus programs on Ham Radio and Technology when possible'.

N7CW will join KE7DTR and N6LSA on the program committee.

Tonight's Program will be Field Day Logging Program by KD7VBG, and Fox Hunting by K6VVR.

50/50 Drawing: \$29.50 was won by Sherwin White, call pending.

Meeting was adjourned at 2035 hrs on motion of KD7VBG, second of WA6ZZT.

Respectfully submitted,

Jeff Hanna, WB7RFY

YARC Secretary

Treasurer's Financial Reporting Sheet



Club / Group Name: YARC
Reporting Date: May '08

Patti Halgunseth, KD7VBG
Treasurer

Members Name	Dues Paid	Repeater Fund	Donations	Prize Money Paid Out	Net Cash In per Member
Dewey Shirley/N-KC7FRA	\$18.00	\$4.00			\$22.00
Doug Jarmuth/N-N0DRJ	\$18.00	\$2.00			\$20.00
Jim Ball/N-WB7UZV	\$18.00	\$12.00			\$30.00
Robert Tilman/R-K7CJW	\$18.00	\$2.00			\$20.00
David Morrow/R-KD7YEG	\$18.00	\$7.00			\$25.00
Roy Jackson/R-AD7FW	\$18.00	\$2.00			\$20.00
Pete Morrison/R-K6VVR	\$18.00	\$2.00			\$20.00
Fred Zimmermann/R-N7PJN	\$18.00	\$2.00			\$20.00
Michael Ritter/R-AC7FH	\$18.00	\$2.00			\$20.00
Tom Griswold/R-N6LSA	\$18.00	\$2.00			\$20.00
Gail Griswold/R-K7YTI	\$0.00				\$0.00
???????/T-Shirt	\$19.00				\$19.00
Doug Jarmuth/T-Shirt	\$21.17				\$21.17
4-Patches			\$12.00		\$12.00
Tech Book			\$20.00		\$20.00
50/50			\$113.00		\$113.00
Ken Severance/WA6AQK				\$56.50	(\$56.50)
Total:	\$220.17	\$37.00	\$145.00	\$56.50	\$345.67

Miscellaneous Club Expenses	Cash Out	Check Number
David Passell=Refreshments	\$9.17	1006
Marsh Affinity=Insurance	\$347.00	1007
State of Arizona=Renewal	\$10.00	1008
Patti Halgunseth=Hamfest	\$7.41	1009
Patti Halgunseth=ARRL Flyers	\$19.97	1010
Insty Print=Newsletter	\$27.49	1011
Repeater Fund	\$37.00	Cash
Total:	\$458.04	

Club Funds Summary	Totals
Starting Balance	\$2,025.56
Net Expenses	\$458.04
Net Income	\$345.67
	\$1,913.19
Repeater Fund	(\$154.08)
Cash Flow	(\$121.37)



The Yavapai Amateur Radio Club will meet on July 10, 2008 instead of the regular first Thursday of the month.

This Month's Featured Ham

By Pat Oliver, K7DUC



Jim Ball, WB7UZV

Jim first got his license in Casper, Wyoming in 1977. He lived in Casper for 25 years. He was born in Mansfield, Ohio. While in Casper, he was active for about 5 years. The contacts he made while in Wyoming, especially during the long winters, were much appreciated. When he moved to Prescott, the weather was so much better here that he wasn't active for a while, although he kept up his license and is a lifetime member of the ARRL. He eventually went back to the hobby, and continues to enjoy it today.

Jim currently operates on 80 meters, 40 meters, 30 meters, 20 meters and UHF/VHF. His equipment includes a Yaesu 950, a Yaesu 897, a Yaesu 857D, and an ICOM IC-V8. He recently restarted operating CW and seems to be progressing well. He also operates on phone. He has found his contacts to be quite helpful.

His most memorable contacts were first, with a girl in Florida on CW. It was her first contact on 10 meters. They kept in contact for many years, and her QSL card is designed like Jim's. She is now an Extra Class and was with State Communications for many years. To her, Wyoming seemed like DX at the time. The second memorable contact was with a man from Mobile, Alabama. It was Jim's 50th contact and was on CW, on a Novice band with low power.

The most memorable mail Jim has received was from the girl in Florida and the man in Mobile, Alabama.

Jim's last CW contact was on the previous night with a ham in Hawaii, who was sending CW while mobile.

He is in the process of studying electronics, and will build equipment based on what he is learning.

After Jim earned his General Class license, he became involved in some emergency work. He worked to help a group, after an oil spill, who had no communication with the outside. He setup nearby in a trailer and assisted them.

He now is active in the Knobby Knee group's lunches, and participates in the YARC Wednesday evening net.

Jim is now retired, but was in heavy construction for most of his life. He worked about 15 years as a welder, plumber and pipefitter. Over the past several years, he has constructed the house that he currently lives in.

He would like to see the club's membership increase. Jim is really enjoying the kids in the club.

Jim just started in YARC, but has the promise of being a very active and outgoing member. We are fortunate to have him. ■

Upcoming Events



- **June 28 - 29, 2008** - Field Day/YARC Picnic at Watson Lake in Prescott.
- **July 18, 2008** - ARCA/Williams Hamfest at 800 Rodeo Road in Williams, AZ.
- **September 12 - 14, 2008** - ARRL Southwestern Division Convention in Mesa, AZ.
- **September 18 - 21, 2008** - Yavapai County Fair



By Lloyd, WA6ZZJ

ARES/RACES.....

TRAINING MEETING "WHAT'S IN YOUR GO-KIT(S)?".....

The second ARES/RACES quarterly training meeting was held last Saturday in Prescott. The topic covered was Go-Kits. There were 17 members and guests that attended. Thanks to all of you that attended. Those that for some reason were unable to attend and those that chose not to attend missed an informative meeting with members participating by bringing their own Go-Kit(s) and sharing ideas. There were kits from the basic to the well equipped emergency communication type. We all learned from one another in the process.

Every ARES/RACES member and every amateur radio operator should have at the very least a basic deployment Go-Kit and preferably a 72 hour kit.

YARC – ARES/RACES...

Field Day is just around the corner.....

Field Day is fast approaching. This year a combined YARC, ARES/RACES and VVARA operation is being planned. It will take place at Watson Lake Park in Prescott. It will be held at the upper Ramada area on Saturday and Sunday, June 28th and 29th. Plans are progressing as to the number of stations, antennas, etc..

A sign up sheet was passed around at the June YARC meeting for those interested in attending and operating (If you were not at the that meeting and wish to sign up please contact Patti, KD7VBG, or Lloyd, WA6ZZJ, to get your name on the list). At this time, with the number of persons signing up, it looks as though we will only have enough operators to run one HF station and a VHF talk-in frequency. Neil, KA7JAS, will be bringing a tower w/beam antenna for the operation along with a

dipole antenna for the lower frequencies and the station will be operated from the ARES/RACES MARC emergency communications vehicle which is equipped with a 7 KW generator. The YARC call sign, W7YRC, will be used for the event.

The following website will show the location of Field Day:

<http://www.arrl.org:80/contests/announcements/fd/locator.php>

For those who signed up to assist with set up, it will begin at 0800 local time on Saturday morning with operation from 1100 local time (1800 UTC) on Saturday until 1100 local time (1800 UTC) on Sunday. Tear down will begin at 1100 local time on Sunday. We must clear the area as soon as we can on Sunday as there is another group scheduled for the Ramada later in the afternoon.

This year the plan is to use computer logging for the event and Patti, KD7VBG, gave a presentation on using the logging program, N1MM Logger, at the June YARC meeting. For those planning to operate you can go to the website <http://pages.cthome.net/n1mm/> to download the free N1MM logging program to become familiar with it.

We will be subscribing to the following principle which is put forth in the ARRL Field Day Packet:

"First, and foremost, is Field Day should be a fun activity. Field Day serves as one of the biggest introductory "drawing cards" we offer in trying to expand interest in the hobby. A Field Day that is technical in set-up may well produce a good score. But remember that a Field Day that practices the "KISS" principle (Keep It Simple, Silly) is more likely to attract interest and participation than one which is run like a hard-core contest".

Dignitaries from Yavapai County and all four cities and towns have been invited to the event so we are looking forward to some of them to attending.

The annual YARC picnic will be held in conjunction with Field Day on Saturday with food, fun and games. Serving is planned to begin at 11:00 a.m. VVARA members have been asked to join in the picnic as well. "Fox Hunts" are in the planning as well as Geocaching and possibly having the "Tupperware Navy" on hand with their kayaks.

Some Field Day Operating Tips.....

To maximize the number of contacts, there are several practices that should be followed.

Call CQ. Most of the Field Day participating stations will be "casual" operations whose goal may be to work their last needed state for Worked All States or 5-Band Worked All States. These stations will not be calling CQ! They will be tuning the bands "searching and pouncing" on stations that they need to achieve their individual goals. The **ONLY** way to log a contact with one of these stations is to keep "W7YRC" on the air to be heard and called by them.

Keep your calls and listening periods short. Don't make stations wait for you to end a long winded "CQ." Give them frequent opportunities to call you. Similarly, allow enough time for someone to begin a response before calling again, but don't wait longer than necessary. Timing this properly takes some practice.

Don't Ragchew. Even though Field Day is a somewhat "laid back" contest, don't fall to the temptation to ragchew, especially if you have been receiving one or more responses to each CQ call. The serious competitor will not wait for you to finish chatting! He will recognize that he could log 2, 3 or more contacts while he waited (and possibly you could also have logged as many more!). Be polite, but don't waste time.

Keep your transmissions short. Not only to save your voice but to save time for other contacts, keep the content of your transmissions short and limited to only the essential information. It is not discourteous to omit "73" from the end of each contact. You need not formally acknowledge receipt of the "CQing" stations information but need only to respond with your own. If you didn't catch all of his information, a simple "AGAIN?" on phone, or "?" on CW should be enough to get the information repeated before you give your portion of the exchange.

Use the full callsign. Always call the station using your full callsign; **never** use just the last two letters. No competent operator working a frequency wants to have to ask anyone to repeat their call if they can copy it initially. They can't copy it if you don't give it!

Rework "dupes" that call you. Even if you have worked him before, it is faster to work him again and indicate "dupe" in the log than it is to discuss it. There is no score penalty for working a station more than once on a band, as

long as points are not claimed for the duplicate contact (s).

Always end with your callsign. It is very frustrating to be rapidly tuning across a band, "searching and pouncing" and hear a "CQ" or "TEST" and then silence. You know the station is looking for contacts, but who is it? You have to make a quick decision whether to wait for the station to call again; to call him "blind," not knowing whether you have worked him before; or to move on without calling him. ■

Program Speakers



July: Gordon Barth will give a presentation on "Physical Fitness".

August: Bob Clark will talk about Norman Rockwell.

September: Jim Clark, N5RO will give a talk on the Salvation Army Team Emergency Radio Network (SATERN).

For Sale

Force 12 C-4 Yagi
4-Bands - 40, 20, 15, & 10, Plus 12/17M using Tuner; 8 ele., 18' Boom
\$450.00

The C-4 is a multiple monoband antenna stacked horizontally on a single boom. There are no traps for no-loss and best efficiency. A Great performer!

Power Rating - 5KW

Weight - 39 Pounds

Windload - 6.4 Square Feet Max.

Wind Survival - 80 MPH

Turning Radius - 19.8 Feet

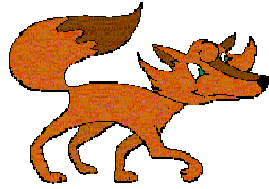
Contact: Joe Oliver, AC6AA

(928) 771-9277 or joliver@commspeed.net

Transmitter Hunting In The Early Days

By Dick Hughes, W6CCD

The talk on fox hunting by Pete Morrison at the June club meeting sure brought back a lot of memories. I have written in past years about transmitter hunts from the 50's and 60's. I thought it would be interesting to the younger members of our club to read what it was like to hunt for hidden transmitters 50 years ago. Transmitter hunting has always been the most interesting part of the hobby for me.



In the 1950's, we didn't have 12-volt equipment. Everything ran on vibrator supplies or dynamotors to create the high voltage necessary for both receivers and transmitters. Even the car radios required high voltage for the tubes used then. It was not until the end of the 50's that automobile radios started using tubes that only required 12-volts. This was before transistors were readily available. I bought my first transistor, a Raytheon CK722, at a ham radio store in Spokane Washington. It was a while before we even knew what to do with them.

Mobile radio equipment back then usually consisted of either a crystal-controlled, or tunable converter inserted between the car antenna and the antenna input to the car radio. The converter would receive the high frequencies of the ham bands, and convert them to something the car radio could tune to-- usually around 1,500 KHz. The crystal-controlled converters were usually homemade, while the tunable converters were typically those made by Gonset. There were a few others. Even the converters required high voltage to operate. This meant tapping the high voltage from inside the car radio, and running it and a filament line out to the converter.

Of course everything was amplitude modulated (AM) then, and ignition and generator noise was a real problem. We didn't have alternators yet, and lots of cars still used 6-volt batteries instead of 12-volt. To tame the vehicle noise, it was common to use some type of noise limiter that was soldered into the IF of the car receiver. These usually used a 6AL5 dual-diode tube which required even more power to be stolen from the car radio. To reduce the power drain, I designed a solid-state noise clipper that was published by a friend of mine in the January 1965 edition of 73 Magazine. This design was quickly adopted by the local hams for use in their mobile radio systems. There were a few complete

mobile receivers coming on the scene in the late 50's, which included noise limiting, etc., but I didn't know anyone who could afford one.

Transmitters were almost always homemade, and were mostly crystal controlled. A typical final tube would be a 2E26, AM modulated by one or more 6AQ5's. For power we used war surplus dynamotors, which were later replaced with transistorized power supplies, also home built. These provided the high voltage. Filament voltage was drawn from the car battery the same as we do today. Transmitter hunting in the 50's and early 60's was mostly confined to 10-meters, then 6-meters as more equipment became available. Two-meters was still a dream for most people, and FM was only starting to become available in surplus Motorola police and taxicab radios. The truly brave were modifying some war surplus radios that could be used on two-meters. Transmitter hunting was always on the same frequencies, so crystal control was not a problem for us.

My first exposure to transmitter hunting was in Spokane Washington while we were stationed at Fairchild Air Force Base from 1955 through 1957. I belonged to the Spokane Amateur Radio Club, and we held regular transmitter hunts on 29.6 MHz AM in the 10-meter band. At that time I used an Elmac A-54H transmitter, a PE-103 dynamotor, and a Gonset Tri-Band converter, which covered 10, 20 and 75-meters. The Elmac used an 807 for a final amplifier, and two, 6L6's as AM modulators. It ran 50-watts AM. Our hunting area covered most of the Spokane area, and we had no s-meters or directional antennas per se. We used our ears and the directivity of the vehicle as you turned it around. Crude by today's standards, but it worked, and was a lot of fun.

After I got out of the Air Force in October 1957, we moved back to my home town of Pomona, California. By early 1958, we had two children, and I was working at the Pomona Division of General Dynamics. It was called Convair (Consolidated Vultee Aircraft) when I first joined them. It wasn't too long before I rejoined the local radio club and started thinking about transmitter hunting in California.

In the early 60's, six-meters started to become a really popular band, not only for mobile, but for use at home too. It was still AM, but it was not unusual to work back to the middle of the country using 10 watts AM. It was a natural for mobile radio use, and it soon was the band of choice for hidden transmitter hunting.

See Transmitter Hunt Page 9

• Transmitter Hunt (Continued from Page 8)

We were still using the car radio for the IF strip for our 6-meter receivers, but most everything was 12-volts by then, and the only high voltage you needed was for the transmitter. Dynamotors were relegated to the scrap heap, and homebuilt power supplies using transistors were the norm. Nuvistors were becoming available, and some very sensitive 6-meter converters were constructed using the little metal tubes. And of course my little solid-state noise clipper was being used in the car radio for noise limiting. About this time the Gonset "Goony-Birds" were available, and some of my ham friends started using them instead of homebuilt equipment. Eventually, I too bought one of the Gonset II six-meter transceivers.

Transmitter hunts were run every Saturday night. We covered a huge area from the mountains on the north, to Chino on the south, Ontario on the east and Covina/Glendora on the west. It was about 400 square miles. Like Pete said, the transmitter had to be heard from the starting location, but that was seldom a problem with mobile transmitters running 20 to 60 watts on 6-meters. We always met at a Mexican restaurant on Foothill Blvd in Pomona. The hidden transmitter would come on the air, and off we would go. The method we used was to transmit continuously, using voice modulation. Often the fox would just read from a book. Some of us had s-meters in our cars, but still no directional antennas. We learned to read the signal direction from driving by certain kinds of objects, like telephone poles. It was still crude, but it still worked really well.

As soon as the fox was found, we would all return to the Mexican restaurant for dinner while the finder of the first hunt would hide. After dinner, we started all over again to find the next fox. The winner of the second hunt would be the fox for the first hunt the following Saturday, and so it would continue. It was a fantastic family sport, and the kids always got a great kick out of the excitement of the hunt. And the food was really good too! We will probably never see fox hunting to that extent ever again, but those of us who participated in it will never forget the good times. ■

73, Dick – W6CCD

VE Tidbits



by Mary Vince – AB7NK

Time flies when you're having fun! It's difficult to imagine a year has gone by since the first Prescott Hamfest. All the months of hard work and planning definitely paid off. From what I saw and heard it was definitely a success.

The VE Team is constantly trying to improve the procedures used to streamline the testing process. For the first time, applicants were pre-registered and two quality control VE's, W6CCD and K6VVR, were used to check each applicants paperwork before proceeding to the check in table. Aside from a minor glitch, everything went smoother than anticipated.

12 applicants took 15 elements resulting in 3 Technicians, 3 Generals and 2 Extra's. Congratulations to everyone!

The next testing session is scheduled for October 11th beginning at 9:00 A.M. at Embry Riddle University - 3700 Willow Creek Rd., Bldg 72, Room KEC 132. VE testing information can be found at the YARC website at www.yarc.org and click on VE Testing or email me at ab7nk@arrl.net.

Thanks to the club for their constant support, KB7TRE for the use of his classroom and a special thanks to all the VE's who participated. You're all very much appreciated.

Everyone have a great summer, stay cool and be safe.

**Rohn 40 foot Tower
with Base**

\$100.00

Call Bob Smith, WB6ODR
(928) 443-9321



HF mobile antenna matching made easy

By Bruce Randall, W1ZE



An HF mobile antenna at best is a very inefficient radiating device. The major reason is that to make a HF antenna fit on a car and not smash into every branch or overpass it should not be longer than about eight feet.

When you have a short antenna you have to make up the required length by adding a coil to resonate it on the desired band. The "loaded" whip antenna will exhibit feed point impedance much less than 50-ohms. On 75 and 40 meters the base impedance is in the neighborhood of a few ohms, requiring some type of impedance matching to get the SWR into reason.

Some hams get past the SWR the transceiver sees with an antenna tuner between the transceiver, (or built into the transceiver itself) and the antenna. This makes the SWR protection circuit in the rig happy, but does not improve the SWR at the base of the antenna.

If you look in the antenna books, they recommend several types of base impedance matching for mobile HF antennas. Since the early days of mobile HF, a coil with a dozen turns is placed between the base of the antenna and chassis ground, and the

coax center conductor is tapped onto the coil at a point where the coax sees an impedance close to 50-ohms. Some of the Screwdriver type antennas use this method with the coil wound on a toroid to reduce size.

Hams not wanting to go to the expense of a screwdriver type antenna may settle for the hustler antenna with individual band coils and whips, while others like the inexpensive fiberglass Hamstick® type whips. These antennas need help too to get a good match to 50-ohm coax.



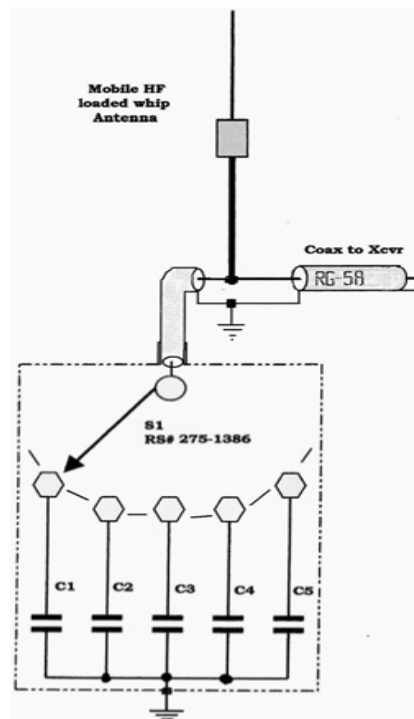
The previously mentioned matching coil will work with these antennas, but there is another simple matching device.

By adding a simple, inexpensive ceramic disc capacitor across the antenna feed point, a 50-ohm match can be achieved. In turn the whip length will be a few inches longer when tuned to resonance. Each band will require a different value of capacitance (pF).

I have used the base capacitor method several times on loaded mobile whip antennas with excellent results. I have even used them with a Screwdriver antenna.

If you only operate one band, only one capacitor is needed, but if you like to go from band to band you will need a way to quickly change the base capacitor.

The way to switch in various capacitors is to use an inexpensive 6 position rotary switch and enclose it in a small metal or plastic box as shown in the following diagram.



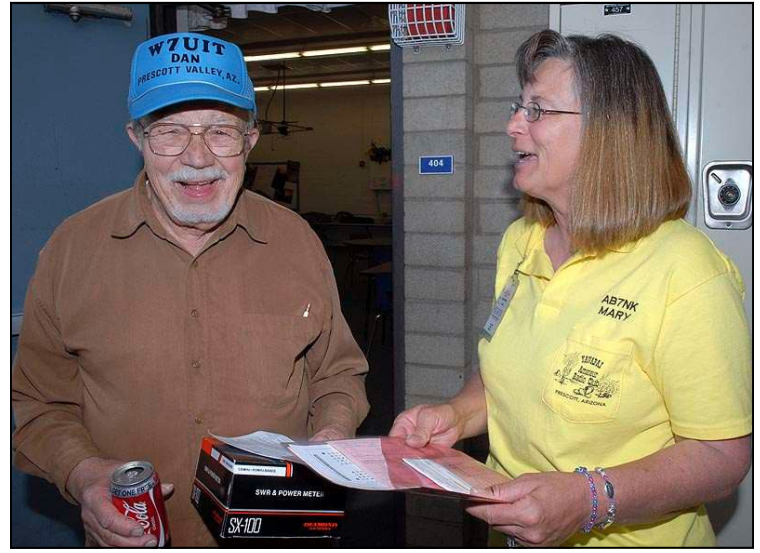
All the parts needed may be obtained from Radio Shack. The Shack sells an assortment pack of ceramic disc capacitors, and you can select from them the needed values to achieve a proper match.

The following band vs. capacitor table will get you close to the necessary value. Some mix and matching may be required depending on the resonant frequency and style of HF antenna.

BAND	Center loaded	Hamstick
75M	1000pF	880pF
60M	880pF	720pF
40M	680pF	470pF
20M	220pF	150pF
17M	150pF	110pF
15M	50pF	-----
12/10M	22pF	-----

73, W1ZE

Second Annual Prescott Hamfest



Above Photos Courtesy of Jo. L. Keener



Weekly Breakfasts



Tues. Morning Breakfast:

7:00 a.m. at

Back Burner Cafe

8400 E. Long Mesa Drive
& N. Robert Road
Informal – all are invited.

Wed. Morning Breakfasts:

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

8:00 a.m.

Masonic Lodge

(1280 Willow Creek Road,
2nd Floor; above Bank of America)
informal – all are invited

* Location data (per WGS84) provided
by Fred Zimmermann, N7PJN

Area Repeaters

Frequency	PL	Location	Owner/Club	Auto-Patch	Rem. BaseOr Linked	Vo IP	Notes:
52.560-	100.0	Mt. Union	N7NGM			Echo	-500KHz Offset
53.040-	None	Prescott Airport	WB7BYV				-1MHz Offset
145.290-	127.3	Mingus Mtn.	ARES/RACES				
146.780-	91.5	Williams Mtn.	BWARC			IRLP	
146.880-	100.0	Prescott	YARC				
146.980-	162.2	Flagstaff	CARC				
147.000+	162.2	Mingus Mtn	MMRG				
147.040+	100.0	Prescott Heights	W2YAV				
147.140+	162.2	Flagstaff/-Mt. Elden	ARA		Linked to Mt. Ord 147.360-		
147.220+	162.2	Mingus Mtn	VVARA				
147.260+	103.5	Mt. Union	ARES/RACES				
442.150+	100.0	Mingus Mtn	W1OQ/Northlink				
442.350+	100.0	Glassford Hill	N7KPU			IRLP	
445.300-	100.0	Prescott	WINSYSTEM		Node 3727	IRLP	
448.475-	100.0	Flagstaff-Elden	ARA	Yes			
448.500-	100.0	Prescott	K6JSI				
448.875-	100.0	Flagstaff-Elden	Northlink		Linked		
449.175-	100.0	Towers Mountain	Northlink		Linked		
449.675-	88.50	Prescott Airport	WB7BYV		Linked to P Mtn. 927.3875		
927.3875-	151.4	Prescott	WB7BYV	Yes	Yes	Echo	Be Nice

Y.A.R.C. IRLP NODE
Node Number 3182
442.350+ MHz with a
PL Tone of 100.0 Hz

For more Repeater Information & Listings refer to:

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

YAVAPAI AMATEUR RADIO CLUB

P.O. BOX 11994

PRESCOTT, AZ 86304

Visit us on the web at <http://www.w7yrc.org>

Many thanks to Bob Smith, WB6ODR, our Webmaster

