



YAVAPAI SIGNAL



The Yavapai Amateur Radio Club • Prescott, Arizona • DM-34 • Volume 25 – No.10 • October 2010

From the President's Desk....



Hello again:

Yes! This was one of our busiest months of scheduled activity involving YARC members. Most of the events went off without a glitch, but in any case, we were able to smooth things out and came through with victorious results. Many Thanks to Patti, KD7VBG, and Lloyd, WA6ZZJ, and Thanks to all the other volunteer Hams who participated in these events.

Next - Congratulations to both the New and upgraded amateur operators, who took their exams on September 18, 2010, (Nine took the exams, and Nine were successful! Outstanding (100 % is as good as it gets!). Many Thanks for Mary AB7NK and her VE's for holding the exams. Also, by the time we hold the YARC meeting, the Prescott Road Rally will be history. It is scheduled for Friday, October 1st and 2nd. Thanks for your much-needed help and efforts of all participating YARC members. Reminder - the next scheduled event will be - Americas Walk for Diabetes, held on Saturday, October 16, 2010. Please check with Lloyd, WA6ZZJ at our next meeting.

The October YARC meeting will be held on Thursday, October 7, 2010 at GMMS. I will be the Speaker, and the topic is: "Now I have my license, Now What? Radios and how they should work; Antennas and how they work; Power sources and what type you need, and how to connect them together so they work." Sounds basic, but this information will be helpful in programming your radios. Many other topics of interest will be covered.

NOTE: The YARC Net meets every Wednesday evening at 1900 hrs (7:00 pm) all are welcome. Please plan to join in on the festivities. Please take the opportunity to join the net on a regular basis. This is a great time to talk to and meet other members of the YARC. The frequency is 146.880, - off set, and a CTCSS Tone of 100.0 Hz.

The T-Hunt will be held on October 10, 2010 (Sunday following our meeting), at 1:00 pm, starting in the parking lot of The Arizona Credit Union (next to Walgreens, located at Gail Gardner Way, and Willow Creek Rd.). The T-Hunt momentum and enthusiasm is growing, so come and join in on the fun. Bring any equipment you have for T-Hunting and we can check it out, and then, we can make helpful recommendations about your equipment. With or without equipment, come join the fun, you can ride with other hunters as an observer, until you have enough confidence to try it yourself. When the T-Hunt is over, we get together for some refreshments at a local café. Fox hunting is one of the better phases of Ham Radio. Jeff, WB7RFY won last month's T-Hunt, and will hide the transmitter this time. Good Luck To All!

Respectfully:
Pete K6VVR



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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 September 9, 2010 Board Meeting



Meeting was called to order at 1820 hrs. by the President, K6VVR. Also in attendance:

AB7NK, KB7TRE, KF6SPS, KE7DTR, WB7UZV, AD7RL and AD7WW.

KB7TRE reported on GMMS club projects. Former BMMS club equipment moved to GMMS.

Ways to improve participation on the weekly YARC net explored.

Arizona QSO party Oct. 10 & 11.

On motion of WB7UZV, second by KE7DTR & no dissenting, meeting was adjourned at 1843 hrs.

Respectfully submitted,
George Imburgia, AD7RL
YARC Secretary

Minutes of September 9, 2010 General Meeting

Meeting was called to order at 1900 hrs. Following the Pledge of Allegiance; introductions were made.

Attendance: 58 of whom 47 signed in.

New member Anthony Galindez welcomed unanimously.

Minutes of the August meeting were approved as published, on motion of KB7TRE, second of KD7VBG, & no dissenting.

Treasurer: report offered by AB7NK: Beginning balance \$4,533.06, Ending balance \$4,730.39 and repeater fund balance \$1,104.92 Report accepted as read with no dissenting.

COMMITTEE REPORTS:

ARES/RACES: WA6ZZJ reports:

The Amateur Radio Emergency Service celebrates its 75th anniversary September to December 2010.

Special Event Communication's busy season begins this Saturday:

Sept. 11, March of Dimes

Sept. 19, Skull Valley Loop Challenge

Sept. 19, Groom Creek Half-Marathon

Sept. 25, Tour-de-PV Half-Marathon

Oct. 1-2, Prescott Road Rally

Oct. 16, America's Walk for Diabetes

All of these events are fully staffed.

Ragnar route has changed, and won't be in this area this year.

Classes: W7JLC reports IRLP is back up and running on the Glassford Hill repeater. 5 instructors are lined up to teach a Technician class on Oct. 23. An Extra class is being planned for Nov-Dec.

Shirts: W6CCD has supply of club shirts available at \$19.00. w6ccd@arrl.net

Badges: WB6ODR is accepting orders at \$ 6.75 for the custom engraved YARC badges. lrsmith@cableone.net

Refreshments: K6UWV reports coffee, soft drinks and lots of cookies are available.

Elmer: KA7JAS reports the Elmer team is good to go.

Club Net 146.88- 100 Hz PI Wed. 7 pm is accepting net control positions. Experienced control operators will provide assistance and a station for first time operators. Contact WB7UZV or AD7RL.

School Clubs: BMMS club closed down; equipment moved to GMMS. KB7TRE reports school clubs have resumed. The West Yavapai School Fair is being held at the Rodeo Grounds on the 16th. YARC will be assisting GMMS students setting up a station for the event.

Slow Code 146.88- 100 Hz PI, Sunday about 7:30pm, WB7UZV thanked YARC for the use of the repeater. Training materials are available from Jim.

Nets: KI6AHH reports that the Young & New Hams net is doing well on Sunday nights on the 147.220 repeater. Focus has been on subject matter of interest to new hams.

Fox-Hunt: Every Sunday after the monthly meeting; start time 1:00 pm, Arizona Credit Union parking lot adjacent to Walgreen's at Willow Creek and Gail Gardner intersection. Check in on the 146.880 repeater. W7JLC won last month, and will be hiding the transmitter.

Mike Taylor, KE7JGJ spoke briefly about the Prescott Rally, and fielded questions. Mike thanked the club for providing communications support.

VE: A special testing session will be held Sat., Sept 18 at 9AM.

Patches & Decals: AB7NK reports patches and decals available.

AZWAC: Certificates are available for anyone who works all 15 counties in AZ. Oct. 10 & 11 is the Arizona QSO party. YARC will be sponsoring one of the prizes.

The 20th YARC birthday party will be held Jan. 15, 2011 at the St. Michael Hotel.

Food Bank: KB7TRE is accepting donations for the Yavapai Food Bank. Please keep bringing in food.

OLD BUSINESS

A special event station will be operating from Gunsite for the NRA birthday on Nov. 17th.

NEW BUSINESS

No new business.

Adjourned 1938hrs.

Respectfully submitted,

George Imburgia, AD7RL

YARC Secretary

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.

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:

Neil Vince, KA7JAS at: (928) 775-2158

Jim Ball, WB7UZV (928) 445-2997

Will Taylor, AD7WW (928) 445-1717

YARC Officers for 2010

President

Pete Morrison, K6VVR
pm_service@earthlink.net

Vice President

Jim Ball, WB7UZV

Secretary

George Imburgia
ad7rl@netsecs.us

Treasurer

Mary Vince, AB7NK
ab7nk@ARRL.net

Board of Directors (includes Club Officers)

Terry Pemberton -- KB7TRE

Will Taylor -- AD7WW

Richard Bozeat -- KE7DTR

Walter Schumann -- KF6SPS

Newsletter Editor: Joe Oliver, AC6AA

joliver@cableone.net

Yavapai Amateur Radio Club September 2010 Treasurer's Summary

By Mary Vince, AB7NK

Income

8/20/10	KC7BPI	Harold Berthold	4071	R	20.00
8/10/10	N7CQO	Terry Ford	1007	R	20.00
8/20/10	VE6RVT / KF7HGG	Ron Potter	cash	R	20.00
9/9/10	KV8TD	Doug Freeman	cash	R/F	20.00
9/9/10	K7DRV	Doreen Freeman	---	R/F	---
9/9/10	No Call	Anthony Galindez	1202	N	20.00
9/9/10	W5VJH	John Gross	cash	R/F	20.00
9/9/10	W5GBG	Barbara Gross	---	R/F	---
9/9/10	KE7WOQ	Don Haden	1045	R/F	20.00
9/9/10	KE7WOQ	Don Haden	1045	ARRL/R	39.00
9/9/10		decals and patches	cash		15.00
9/9/10		fifty/fifty	cash		121.00
9/11/10	KJ7SJ	Bob Budin	cash	R/F	20.00
9/11/10	KD7GGT	LeOra Budin	---	R/F	---
Totals					\$ 335.00

Expenses

9/9/10	W6UWV	David Passell	1009	refreshments	9.16
9/9/10	KC7BPI	Harold Berthold	cash	50/50	60.50
9/11/10		Allegra	1010	newsletters	31.01
9/11/10		ARRL	1011	Renewal KE7WOQ	<u>37.00</u>
Total					\$137.67

Beginning Balance	\$ 4,533.06	August ending repeater balance	\$1,086.92
September Income	335.00	September repeater fund	<u>18.00</u>
Expenses	<137.67>		
General Fund Balance	\$ 4,730.39	September repeater fund balance	\$1,104.92
Increase	\$ 197.33		



Arizona Worked All Counties AZ-WAC) Award

Work all 15 Arizona Counties; download an application at <http://www.w7yrc.org/az-wac.htm> or to have one e-mailed to you email az-wac@w7yrc.org . You have the option of having the award e-mailed to you to print, or by sending \$5.00, one will be printed on photo paper and mailed to you.



**HAPPY
HALLOWEEN**

Yavapai Amateur Radio Club to Conduct Free Amateur Radio License Course

The Technician Class course will be a one-day course on Saturday, October 23, 2010. This course is designed to prepare students for the entry level Technician Class license exam. This license will allow all VHF and UHF amateur radio privileges. No Morse code is required.

An examination session will be conducted on Saturday, October 30, 2010 for all license classes.

The class and examination session will be conducted at Embry-Riddle Aeronautical University (ERAU), in room 103 of the Aerospace Experimentation and Fabrication Building (AXFAB, building 75). The ERAU address is 3700 Willow Creek Rd in Prescott, AZ.

The technician course will start at 8:00 A.M. and will conclude about 4:30 P.M. There will be half hour lunch breaks each day at about noon. Students should bring a sack lunch or a buffet style lunch is available at the ERAU cafeteria for about \$8.00.

The exam session will start at 9:00 A.M. You will need your photo ID for all exams. The cost for the exam is \$15.00.

Preregistration is requested for both the license course and examination sessions.

-For the course registration contact Jack Crabtree at jskra@cablone.net, or 928-771-2344.

-For the exam registration, contact Mary Vince at ab7nk@arrl.net, or 928-775-2158.

Those registered will be provided addition information including an ERAU campus map via email. Early registration is encouraged. Discount group orders for the recommended but optional ARRL License Manual will be made on October 13. Contact Jack Crabtree at the above for more information. ■

October Program

Pete Morrison, K6VVR will be the Speaker and his topic will be:

“Now I have my license, Now What? Radios and how they should work; Antennas and how they work; Power sources and what type you need, and how to connect them together so they work.”

Other types of interests will be discussed.

VE TEST RESULTS

Saturday, September 18, 2010
test results:



Nine applicants resulted in five Technicians, one upgrade to General, as well as three to Extra.

Congratulations and welcome to the ham radio-family!

The next testing will be Saturday, October 30, 2010 beginning at 9:00 A.M. at Embry Riddle in the AX-FAB Building.

We will test for all license classes and walk-ins are welcome. An email to ab7nk@arrl.net would be appreciated if you plan on attending.

Reminder: It is the applicants responsibility to come prepared to take the exam. For a list of what to bring, please visit our website at www.w7yrc.org and click on the VE Testing tab. ■

Upcoming Events

- **October 1 & 2, 2010** - Prescott Road Rally.
- **October 7, 2010** - YARC Meeting at GMMS.
- **October 10, 2010** - YARC Fox Hunt
- **October 10 & 11, 2010** - Arizona QSO Party
- **October 16, 2010** - America's Walk for Diabetes.
- **October 23, 2010** - Amateur Radio Technician License Course at Embry Riddle.
- **October 30, 2010** - VE Testing at Embry Riddle.
- **November 17, 2010** - NRA Special Event Operation at Gunsite Academy.

Membership Count:

1st Thurs. in August.....182
Gain/Loss.....-5
1st Thurs. in September.....177





By Lloyd, WA6ZZJ

ARES/RACES.....

75 and Still Growing



The Amateur Radio Emergency Service® (ARES) will be celebrating its 75th anniversary from September through December 2010. This program of the ARRL – the national association for Amateur Radio – has

provided “ham radio” emergency communications for agencies such as the American Red Cross, Salvation Army, countless Emergency Operations Centers and other responders in the worst of times. In events from ice storms to Hurricane Katrina and Haiti, when normal communications systems were down or overloaded, the Amateur Radio operators of the ARES programs filled requests for communications aid. Over the years the program name and equipment has changed but the vision remains. The modern communications nets that ARES can quickly create to blanket whole regions - without the need for other infrastructure - remain critical in emergency planning.

In the first hours and days of a major event, Amateur Radio is often the source of initial information on the type, scope and reactions needed to save lives. Recognition of this capability led to formal agreements with DHS, FEMA, NOAA and other federal, state and local agencies. When the Internet, cell phone and electricity go out – they call on us, the hams.

The first mention of an organized Amateur Radio emergency response organization appears in the September 1935 issue of QST Magazine. “At least one amateur station in every community should be equipped with auxiliary station equipment for use in an emergency.” With those words by ARRL Communications Manager F.E. Handy and Assistant Communications Manager E.L. Battey, the forerunner to the ARES, the ARRL Amateur Radio Emergency Corps (AREC), was born.

UPCOMING SPECIAL EVENT COMMUNICATION.....

Saturday, October 16, 2010 is the Americas Walk for Diabetes. John, WB9VGJ, will be coordinating this event. Benefit: American Diabetes Association. Sign up for this event will begin at the September YARC meeting.

If you did not sign up at the August YARC meeting please consider doing so. Special event communication is an excellent way to get practice and prepare for emergency communications and at the same time give back to the community. There will be sign up sheets again at the September YARC meeting.

MARCH OF DIMES MARCH FOR BABIES...

Eleven YARC members took part in providing communications for the March of Dimes March for Babies on Saturday, September 11th. Communications was maintained between the start/finish on the north side of the Courthouse Plaza with three water stop locations on the route and an operator in the March of Dimes Van. The route started on Gurley Street and then turned North on Montezuma to Whipple Street and Iron Springs. It turned south and followed Gail Gardner Road to West Gurley Street and returning to the Plaza. The walk started at 8:00 a.m. and operations were wrapped up at 10:30 a.m. As always, the organizers appreciated the communications assistance provided.

Amateurs involved were: KE7WOQ, KD7VBG, KF6SPS, KE7TDR, N7RIS, WB7UZV, AD7WW, K7CJW, K7CBK, N7PJM and WA6ZZJ. Thanks to all for your help. It takes the teamwork to make these events happen.

SKULL VALLEY LOOP CHALLENGE...



Bicycles lined up to begin the Loop Challenge

It was a nice morning on Sunday, September 19th when eight YARC members and one visitor took part in special event communications for the 2010 Skull Valley Loop Challenge Bicycle Race. This year the event was just one 54 mile loop starting on Goodwin Street then going north on Montezuma to Whipple and on out Iron Springs Road. The route continued through Skull Valley, Kirkland and Wilhoit then on Highway 89 back to Prescott with the hard part being the climb from Wilhoit back into Prescott.

The race started at 7:30 in the morning with approximately 187 riders eager to do the 54 miles... An interesting sidelight to the race was a 'challenge race' between the bicycle shop owners. I did not catch which one won that event, but I do know they were all out there riding hard. Operations wrapped up right around 12:30 with all of the runners making it back safely. A few took advantage of the SAG vehicles to give them a ride back if they experienced mechanical problems and/or just plain got tired. The organizers said they couldn't think of even trying an event like this without the assistance of the amateur radio operators. The YARC logo had a prominent place on the event t-shirts.

Amateurs involved in the event were: N7CW, N7PJJ, KA3SNY (Fred's friend from Baltimore, Maryland), AD7UR, KE7IXS, K7CJW, N7RIS, K7CBK and WA6ZZJ. Again, thanks to all for your help. Special event communication is also excellent practice for emergency communication. ■

An Inexpensive, High-Performance, Ugly 50ohm Balun

From the Barrie Amateur Radio Club Newsletter.

Building a no-grief 1.8MHz to 30MHz 50ohm choke-balun is easy. No costly ferrite-cores are needed, just a short length of 3 to 5 inch size plastic pipe, about 25 feet of 50ohm coax plus some nylon cable ties. Solid-dielectric coax is best for this application because foam-dielectric has a tendency to allow a change in the conductor to conductor spacing over a period of time if it is bent into a tight circle. This can eventually result in voltage breakdown of the internal insulation. The required length of the plastic pipe depends on the

diameter and length of the coax used and the diameter of the pipe. For RG-213/U coax, about one foot of 5 inch size pipe is needed for a 1.8MHz to 30MHz balun. For 3.5MHz to 30MHz coverage, about 18 to 20 feet of coax is needed. This length of coax is also adequate for most applications on 1.8MHz. The number of turns is not critical because the inductance depends more on the length of the wire (coax) than on the number of turns, which will vary depending on the diameter of the plastic pipe that is used. The coax is single-layer close-wound on the plastic pipe. The first and last turns of the coax are secured to the plastic pipe with nylon cable ties passed through small holes drilled in the plastic pipe. The coil winding must not be placed against a conductor. The name of this simple but effective device is a choke-balun.

Some people build choke-baluns, without a plastic coil-form, by scramble-winding the coax into a coil and taping it together. The problem with scramble-winding is that the first and last turns of the coax may touch each other. This creates two complications. The distributed-capacitance of the balun is increased and the RF-lossy vinyl jacket of the coax is subjected to a high RF-voltage. The single-layer winding on the plastic coil-form construction method solves these problems since it divides the RF-voltage and capacitance evenly across each turn of the balun.

A more compact, less ugly, 1 to 1 impedance-ratio, 50ohm trifilar-wound (with wire) ferrite-core balun could also be used but there would be some tradeoffs. Ferrite cores are not cheap. Also, the air-core of the coax-balun can't saturate like the ferrite-core and, unlike ferrite-core wire-wound baluns, single-layer wound coax-baluns almost never have an insulation breakdown problem. Also, a trifilar-wound balun does not like to work into anything but a perfectly balanced load. With an imperfectly balanced load, the coax-balun will not, as does the trifilar balun, generate a differential, third RF-current on the outside of the coax that brings the RF to the input of the tuner. The choke-balun is not fussy. It will work as well into a less than perfectly balanced load as it will into a perfectly balanced load, and do so without the possibility of creating a differential RF-current on the station ground and fricasseeing the operator's fingers. ■

6th Annual Groom Creek Classic

By Patti Halgunseth, KD7VBG

In the early morning hours of Sept 19, 2010 12 Amateur Radio Operators gathered to provide communications for the 6th Annual Groom Creek Classic. They ran again this year the ½ marathon; 10K; 5K; and 2 Mile Fun Run/Walk, with 100+ runners. We had seven Water stations along the route that runs from the Groom Creek Fire Dept to Senator Hwy and then the ½ Marathon heads down Wolf Creek Rd to the South end of Ponderosa Park and the 10K continues down Senator Hwy.

We had 9 operators spread between the 7 water stations and 2 Quad units patrolling the route with Net Control setup at the Fire Station. Again this year they are all very appreciative of the Amateur Radio Operators who were on stages to get communications between all stations.



Net Control



The event was coordinated with the Fire Department which had their own communications, but still needed amateur radio, and said again they cannot do it without us. The Fire Captain was very pleased that when he asked a question we had the answers for him right then. There was a late runner that got lost on the way to the event and started 1.5 hours late. The organizers were pleased that we stayed to keep communications going as to where the runner was at on the event route

and followed him into the finish. Several runners came up to Net Control to specifically Thank the Yavapai Amateur Radio Club for being there for them. This was another successful event and cannot be done without everyone who participated. Amateurs involved were: WB7UZV, AD7WW, WB9VGJ, AD7RL, AE7BK, W7PRG, KE7DTR, KF6SPS, W6CCD, WN7E, KC6ZHG, and KD7VBG.

Thanks to all who volunteered, and hope to see everyone for next year's event.

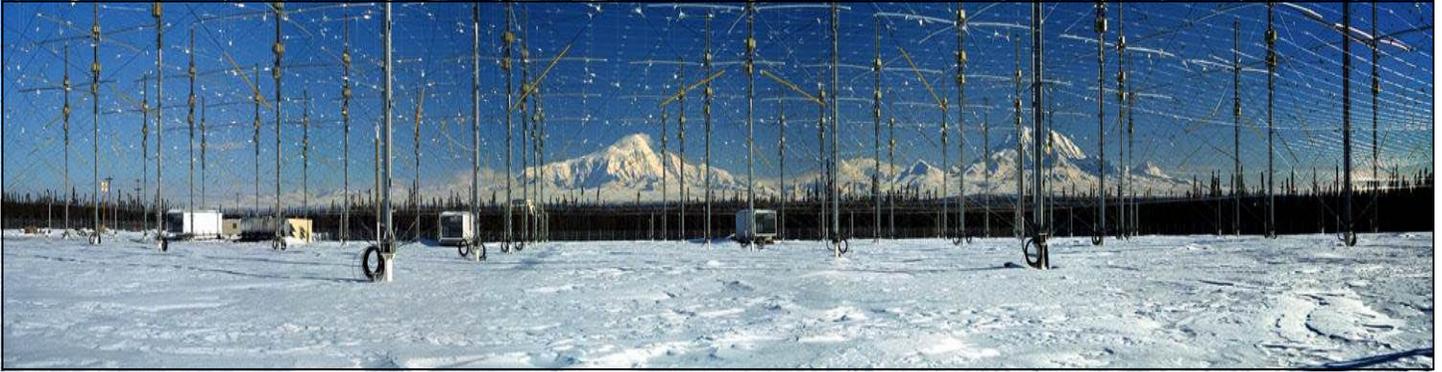
Patti - KD7VBG

Photos by John Broughton, WB9VGJ



The High Frequency Active Auroral Research Program (HAARP)

By Joe Oliver, AC6AA



HAARP's HF Antenna Array Near Gakona, Alaska

According to the HAARP website at <http://www.haarp.alaska.edu/haarp/index.html> "*HAARP is a scientific program whose goal is to study the properties and behavior of the ionosphere. Particular emphasis is placed on enhancing communications and surveillance systems for both civilian and defense purposes.*"

The HAARP program is jointly operated by the US Navy, Air Force, Defense Advanced Research Projects Agency, and several universities, and is located near Gakona, Alaska.

The facility includes a high power transmitter and antenna array [Ionospheric Research Instrument (IRI)] operating in the 2.8 to 10 MHz frequency range. The transmitter is capable of delivering up to 3.6 million Watts to a phased array antenna system that covers 33 acres and consists of 180 towers, 72 feet in height mounted on thermopiles spaced 80 feet apart in a 12 x 15 rectangular grid. Each tower supports two pairs of crossed dipole antennas—one for the low band and the other for the high band. 30 environmentally-controlled transmitter shelters are spaced throughout the array. Each shelter contains 6 pairs of 10 kW transmitters, for a total of $6 \times 30 \times 2 \times 10 \text{ kW} = 3600 \text{ kW}$ available for transmission. The transmitters can be switched to drive either the low or high band antennas.

Electric prime power is provided from 2500 kW generators, each driven by a 3600 hp diesel engine. Four generators are required for operation of the IRI. In addition, the on-site diesel generators must provide power for other equipment used by the transmitters including the cooling system and low level amplifier stages. As a result, approximately 10 million Watts of prime power is required when the transmitter system is operating at full power.

From a control room within the Operations Center, radiation from each of the 180 crossed-dipole antennas can be adjusted precisely by computer control. Thus, the complete array of antennas forms a narrow antenna pattern pointed upward toward the ionosphere.

The facility employs an aircraft alert radar (AAR) to automatically shut off transmissions when aircraft are detected either within or approaching a defined safety zone around the facility.

The HF Transmitter is used intermittently during research periods. You can hear what the HAARP signal sounds like at: <http://www.brojon.org/images/haarp.mp3>. This HAARP signal was monitored on 3.39 MHz in San Jose, California.

HAARP is not authorized to operate in the Ham bands and the transmitter has been "locked out" of those frequencies. In addition, because of the harmonic relationship of the amateur 40 and 80 meter bands, it is not possible for a harmonic of the HAARP transmitter to fall in those bands.

A complete and extensive set of scientific instruments also is available at the facility to observe the background auroral ionosphere and the research results produced when using the transmitter system

Even though HAARP is not a Classified program, it is the subject of numerous conspiracy theories. Activists, conspiracists, and environmentalists, have produced many speculative theories ascribing various hidden motives and capabilities to this project. The project has been blamed for triggering catastrophes such as floods, droughts, hurricanes, thunderstorms, and devastating earthquakes. Most theories are simply wild speculations, based on fears about what is taking place at the HAARP facility (for more discussion on HAARP go to <http://tinyurl.com/6jffe> and <http://viewzone2.com/haarp00x.html>). ■

ARES/RACES MEMBERS INVOLVED IN RESCUE OPERATION SATURDAY, SEPTEMBER 18, 2010

By Lloyd Halgunseth, WA6ZZJ

Jim Zimmerman, N6KZ, was the key player in the operation. The following is Jim's account of the incident:

Around 4 pm local time on Saturday evening, Bud and I were talking on 146.52-simplex when I heard a weak station try to break in. The station was Kent, KA7EIO, who was broken and difficult to copy. I gathered from his transmission that he was on "Pine Mountain with his Boy Scout group", but couldn't get much else. I gave him a critical signal report (S-1) and suggested that he call me from a better location. A few minutes later, Kent broke in again, from a higher location, with a stronger signal (S-2). This time I could copy him well enough to make out his full call and that his group was lost, had a sick member, and requested assistance. I asked Bud if he could copy Kent (he could get only partial copy) and then I asked if there was any other station on frequency that could copy Kent any better than I (none could). I told Kent that we'd help him out.

I asked Kent for his group size and composition (3 adults, 5 boy scouts), his situation (lost on a Boy Scout hike on Pine Mountain), his position (unsure, but thought that they were just off of the Verde Rim Trail), his current provisioning (some food, 4 bottles of water), condition (very tired and one 15-year old boy was sick/throwing up) and if they had a cell phone or GPS (one cell phone with dead batteries). He then reported that he had a small 2-meter HT operating on dry cell batteries (he said that he was on high power and had extra batteries).

I directed him to conserve his batteries, stay on 52-simplex, and that we would get him help ASAP. Bud got me some local repeater frequencies/PL tones that I passed on to Kent to try to see if he could make any of those machines (Kent is from Phoenix and was not familiar with our central AZ repeaters). Kent reported that he could hear the repeaters, but that he was not in a position to work them, even using high power. I suggested that he move his group to a higher ground position to be able to get into one of the repeaters/improve his signal to me. We agreed to work each other on the half-hour to preserve his batteries (good suggestion, Lloyd). Kent did so and from his higher position and we were able to maintain contact and determine that he could just get into the 145.29 MHz repeater (good thing we improved its antenna). I asked him to program that into his HT for possible future use.

I then called the Yavapai County Sheriff's office/

command post and reported Kent's situation/info. The dispatcher reported that they had already been receiving some reports of "flashing lights" from that area (Kent's Boy Scout group were involved in a signaling exercise using signal mirrors and reflected sunlight) that seemed to indicate some distress, but that my report was the first specific info they'd received. The dispatcher told me that they would send help (ground unit and a rescue helicopter) to assist. She directed me to get more info (location of the group and their cars). Finally, she asked me to call her deputy driving in that area. I called her ground unit deputy on his cell phone and passed on Kent's info. He thanked me and began to drive toward Kent's assumed position. I passed on to Kent this info and told him that the helicopter (DPS Ranger) was about 60 minutes away. The helicopter had to land at Love Field to refuel, which extended this time a bit, but I kept Kent posted.

For the remaining 2 hours I made sporadic contact with Kent (due to his weakening HT batteries) to pass on info that made them more visible to the rescue helicopter (build a smoky ground fire, bring out any bright colors, use their signaling mirrors). Kent eventually got so weak that we moved to the 145.29 repeater (he could just make it). I asked Bud to continue to monitor 52-simplex, just in case Kent lost contact with the repeater and went back to our original frequency. Then, about 6 pm local, Kent reported that he could see the helicopter and that they were flying directly toward them. I confirmed this with the deputy-ground unit who was directing the helicopter. Shortly afterward, Kent reported that the DPS Ranger had found them, had a paramedic on the ground, and that they were safe. I thanked all who had helped (Bud, Lloyd, Patti, and Bill, W7CEL) and secured the frequency.

Lessons learned:

- Keep a good ear out for weak calls during simplex/repeater QSOs. (Bud and I did because it sure was a weak call!).
- Have local repeater info handy (I didn't, but Bud did).
- Have local authority's phone numbers handy (I did) and other ARES stations (Bud did).
- Know proper procedures to get key info on lost hikers for authorities (I did).
- Have adequate equipment to maintain extended operations (we all did).

See Rescue, Page 11

● **Rescue (Continued from Page 10)**

- For extended operations, have another station maintain the frequency watch (Bud did so that I could go to the bathroom for a badly needed break).
- Keep casual traffic off the emergency frequency (I did, but it was easy with several ARES stations also helping out; AD7YR, W7CEL, KD7VBG, and WA6ZZJ).
- Have other stations monitor local rescue agency frequencies (Yavapai County sheriff, etc) to keep situational awareness (Bud, Lloyd and Patti did.)
- Get info on the calling station to better understand his/her situation, offer assistance, and determine if the call is genuine (I looked up Kent's callsign on QRZ.COM). The sheriff's office wanted Kent's full name and I was able to provide it and they matched it up to his car they found at the trail head. ■

Editor Note: Thanks to Jim and all involved. This situation was handled in a 'text book' manner which made the rescue a success. Even though the original contact with KA7EIO came about during a conversation on 146.520 MHz, it demonstrates how the use of the 'Wilderness Protocol' that we often talk about could be an advantage for persons lost or in need in the local mountains.

Subject: Life's unanswered Questions

Can you cry under water?

How important does a person have to be before they are considered assassinated instead of just murdered?

Why do you have to 'put your two cents in'... but it's only a 'penny for your thoughts'? Where's that extra penny going to?

Once you're in heaven, do you get stuck wearing the clothes you were buried in for eternity?

Why does a round pizza come in a square box?

What disease did cured ham actually have?

How is it that we put man on the moon before we figured out it would be a good idea to put wheels on luggage?

Why is it that people say they 'slept like a baby' when babies wake up like every two hours?

If a deaf person has to go to court, is it still called a hearing?

Why are you IN a movie, but you're ON TV?

Why do people pay to go up tall buildings and then put money in binoculars to look at things on the ground?

Why do doctors leave the room while you change? They're going to see you naked anyway...

Why is 'bra' singular and 'panties' plural?

Why do toasters always have a setting that burns the

toast to a horrible crisp, which no decent human being would eat?

If Jimmy cracks corn and no one cares, why is there a song about him?

If the professor on Gilligan's Island can make a radio out of a coconut, why can't he fix a hole in a boat?

Why does Goofy stand erect while Pluto remains on all fours? They're both dogs!

In winter why do we try to keep the house as warm as it was in summer when we complained about the heat?

If corn oil is made from corn, and vegetable oil is made from vegetables, what is baby oil made from?

If electricity comes from electrons, does morality come from morons?

Do the Alphabet song and Twinkle, Twinkle Little Star have the same tune?

Why did you just try singing the two songs above?

Did you ever notice that when you blow in a dog's face, he gets mad at you, but when you take him for a car ride, he sticks his head out the window?

Why, Why, Why

Why do we press harder on a remote control when we know the batteries are getting dead?

Why do banks charge a fee on 'insufficient funds' when they know there is not enough money? ■

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

Fre- quency	PL	Location	Owner/Club	Auto- Patch	Rem. BaseOr Linked	Vo IP	Notes:
52.560-	100.0	Mt. Union	N7NGM			IRLP	Node 3301
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				
147.140+	162.2	Flagstaff/-Mt. Elden	ARA		Linked to Mt. Ord -		Mt. Ord=147.36
147.220+	162.2	Mingus Mtn	VVARA				
147.260+	103.5	Mt. Union	ARES/RACES				
224.080-	156.7	Mt. Union	WA7JC				
442.150+	100.0	Mingus Mtn	W1OQ/Northlink				
442.350+	100.0	Glassford Hill	N7KPU			IRLP	
448.475-	100.0	Flagstaff-Elden	ARA	Yes			
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.		P mtn=927.3875
449.725	110.9	Mingus Mtn	WA7JC				
449.750	91.5	Williams	K7NAZ		Linked to Win-Sys		
927.0875-	151.4	Mingus Mtn	WB7BYV				
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 Pete Morrison, K6VVR, our Webmaster

