



# YAVAPAI SIGNAL



The Yavapai Amateur Radio Club • Prescott, Arizona • DM-34 • Volume 25 - No. 12 • December 2010



## Seasons Greetings



### From the President's Desk...



Hello again:

Happy Thanksgiving and the rest of the Holidays, including Christmas and New Years.

By the time you read this, you should be full of Turkey Dinner or what you had for Thanksgiving Dinner. I wish you well, and a Happy and Prosperous New Year.

The One Hundred Thirty Ninth Birthday of the NRA (National Rifle Association) was held at the Gunsite Academy in Paulden, AZ and this was a great success. All who attended this event had fun. Buz Mills allowed the YARC group to use his facility and Ham Gear, while Mike - K7NRA allowed the use of his call for this Special Event Station. THANKS to Buz for the use of the facility, and Mike for the use of his call, and all those who attended and helped with this event.

Elections were held during the November meeting. Congratulations to our new Officers and Board members.

Remember to give Mary AB7NK your monies for the YARC Birthday Party -- she needs a head count for the reservations at Hotel St. Michaels on the square. Contact Mary for particulars.

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-Hunts will be held on December 05, 2010 (Sunday following our meeting), at 1:00 pm, starting in the parking lot

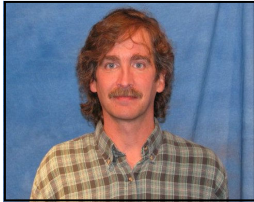
of The Arizona Credit Union (Next to Walgreens, located at Gail Gardner Way, and Willow Creek Rd.). The T-Hunt momentum and enthusiasm is growing, so come and join in on the fun. Bring any equipment you have for T-Hunting and we can check it out, and then, we can make helpful recommendations about your 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. John WB9VGJ and Jeff WB7RFY won last month's T-Hunt, and will hide the transmitter this time. Good Luck To All!

This will be my last letter to the Club as President of YARC. I now move into a position on the Board. Yes, time goes by quickly when you're having fun. I enjoyed the time and effort I spent in this position. I will continue my endeavor to do what it takes to further and advance the hobby of Amateur Radio in our community.

Respectfully: Pete K6VVR

Inside this issue:	
Meeting Minutes.....	Page 2 & 3
K7NRA Special Event Operation.....	Page 4
Treasurer's Report.....	Page 5
YARC Election Results.....	Page 6
Upcoming Events.....	Page 7
YARC Special Event Communications.....	Page 7
Looping around.....	Page 8, 9, & 10
Exciting News - for Some.....	Page 10
VE Testing Results.....	Page 11
Membership Count.....	Page 11
YARC Birthday Party.....	Page 11

## Minutes of November 4, 2010 Board Meeting



Meeting was called to order at 1825 hrs. by the President, K6VVR. Also in attendance:

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

KB7TRE reported on results of the Nominating Committee.

K6VVR led discussion of the monthly T-Hunt.

Handicapped parking arrangements made for meetings.

NRA Birthday events at Gunsite on Nov. 17 discussed.

AB7NK reported on the annual YARC Party. Suggested inviting the original club founders to the party, which will be a celebration of the club's 20<sup>th</sup> anniversary. A motion was made for the club to pay for their dinners. Accepted unanimously.

Having a password protected roster available on the web discussed.

Meeting adjourned at 1839 hrs.

Respectfully submitted,

George Imburgia, AD7RL

YARC Secretary

## Minutes of November 4, 2010 General Meeting

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

**Attendance:** 61 of whom 53 signed in.

Several new members welcomed unanimously.

**Minutes of the August meeting** were approved as published, on motion of KB7TRE, second of KF7ING, & no dissenting.

**Treasurer: report** offered by AB7NK. Report accepted as read with no dissenting.

### COMMITTEE REPORTS:

**VE:** Recent testing session at Embry Riddle with 15 applicants resulted in 11 Technician, 1 General, and 3 Extra class licenses.

**AZWAC:** Certificates are available for anyone who works all 15 counties in AZ.

**Stickers and Patches** available at the Treasurer's table.

**YARC 20<sup>th</sup> Birthday Party** will be held at the St. Michaels Hotel, Jan 15, 2011. Reservations are being accepted by AB7NK at \$25 per person.

KB7TRE moved to invite the original club officers and board to the YARC Party, and pay for their dinners. Seconded by WB9VGJ; approved unanimously.

**ARES/RACES:** WA6ZZJ reports:

In addition to the events listed in Lloyd's article, 8 operators worked the America's Walk for Diabetes on Oct 16, for an additional 30 hrs of service.

The first event for 2011 will be the Whiskey Off-Road mountain bike race, Apr 29 through May 1. This 3 day event is expected to draw 1400 riders, and will require more operators for communications.

The Whiskey Row Marathon is scheduled for Sat, May 14.

**Newsletter:** AC6AA reports everything going well. K6VVR requests that anyone able to view the newsletter online

do so, to save printing and mailing expenses.

**Shirts:** W6CCD has supply of club shirts available at \$19.00. [w6ccd@arrl.net](mailto:w6ccd@arrl.net)

**Badges:** WB6ODR is accepting orders at \$6.75 for the custom engraved YARC badges. [lrsmith@cableone.net](mailto:lrsmith@cableone.net)

**Repeater:** WB6ODR reports the repeater is working well.

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

**Elmer:** WB7UZV, KA7JAS and AD7WW introduced.

**School Clubs:** KB7TRE reports that GMMS now has an activity period at the end of the school day, and now has 8 members in the club. Antennas were damaged by a storm, and the club is in the process of building new ones to be erected soon. Anyone with new Technician books is asked to donate them to the GMMS club.

**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. K6VVR and WB7UZV won last month, and will be hiding the transmitter.

**Food Bank:** KB7TRE is accepting donations for the Yavapai Food Bank. Last month YARC provided 30 Lbs. of food. Please keep bringing in food.

K6VVR reminded members to sign the sign-in sheet.

## OLD BUSINESS

**Nominating committee:** KB7TRE with WB7UZV suggest the following nominations:

President AD7YR  
Treasurer WN7E  
Board AD7WW, KE7NAP and KA7JAS

K6VVR called for nominations from the floor. No other nominations forthcoming.

WB9VGJ moved to accept these officers by acclamation. Seconded by KF6SPS. Approved unanimously.

WB9VGJ reported seeing KB7TRE's picture on page 90 of the American Rifleman magazine. John also listed several hams who will be trying to work the NRA birthday special event station on Nov 17.

KB7TRE moved to provide up to \$100 for food for the event. Approved unanimously.

## NEW BUSINESS

Parking spaces near the meeting will be reserved for special needs, such as handicapped placards and unloading equipment.

A celebration of Dan Nichols' life will be held at the adult center on Rosser St., Sat Nov 6 at 2pm.

The club roster will be available, password protected, on the web. A mass mailing will distribute the details.

Adjourned 1951hrs.

50/50 of \$55 won by WB9VGJ.

Respectfully submitted,

George Imburgia, AD7RL

YARC Secretary

## 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. ■

## 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,

## Merry Christmas



# ***K7NRA Special Event Operation***

**By John Broughton, WB9VGJ**

The Nov. 17<sup>th</sup> Special Event operation, operating as K7NRA, from Gunsite Academy was a success. The band conditions were good and we had pileups trying to work us most of the day. Terry, KB7TRE opened the day operating pileups for a couple of hours and Tony, KI6AHH, finished up the last couple of hours, also handling pileups most of the time. I was able to work my friend Bruce, KD6UY, in Copperas Cove, TX. His dad and I taught Novice license classes many years ago back in IL and I was a VE when he headed the DeVry Institute of Technology VEC effort there. I have had a weekly schedule with Bruce, on HF and often on Skype when the bands aren't good, for just under 20 years.



**Mike, K7NRA and Terry, KB7TRE starting the operation**

We had 305 HF Phone contacts, 13 CW contacts and 11 2M contacts for a total of 329 contacts. A very good day!



**Pete, K6VVR at the 2 Meter Station**

There were 20 or so folks who attended (not everyone signed the sign-in sheet), most of them club members. Mike, K7DD, from Peoria came up and set up a CW station. Not seeing a CW frequency in the Special Event information, he volunteered to operate CW for the event. Jim, WB7UZV, also operated the CW station. Ken, WA4MNT, from Clarkdale, a member of the Arizona ScQRPIons QRP Club, along with K7DD, set up his homemade HF loop antenna for the CW operation.

Norm, NU7W, from Scottsdale, came up to observe the operation. He is a retired police officer and 1982 Gunsite alumnus. He had a copy of his 1982 Gunsite course certificate which Buz, K7GST, was very interested in seeing. Buz had a copy of it made for himself. He and Norm had quite a good chat, as they

know several of the same people, some of whom Norm had met at Gunsite in 1982 and including his former police chief.

Jane Anne, Gunsite's marketing director, conducted a tour of some of the Gunsite ranges, something that she had done the past couple of years. It is always interesting. Several folks spent time browsing in the Gunsite pro shop, but nobody spent the family fortune there.

I would like to thank everyone involved in the operation; the socializing alone helps make this a most enjoyable annual event. Special thanks to Buz, K7GST, our gracious host, Mike, K7NRA, for the use of his call sign and for mailing the certificates, Terry, KB7TRE, for the food and his efforts in helping coordinate the event, Mike, K7DD, and Ken, WA4MNT, for getting us on the air with CW. You can see pictures I took at: <http://tinyurl.com/2b43rmo> ■

# Yavapai Amateur Radio Club

## November 2010 Treasurer's Summary

By Mary Vince, AB7NK

### Income

11-4-10	KF7FPD	Jerry Lawson	cash	renewal	\$20.00
11-4-10	KF7MMU	Bryan Whipp	cash	new	20.00
11-4-10	W7PRG	Peter Generaux	cash	renewal	20.00
11-4-10	WB9VGJ	John Broughton	cash	renewal	20.00
11-4-10	KD7HCS	Szczepan Bartold	cash	renewal	20.00
11-4-10	KE7ZNR	Richard Jee	cash	new	20.00
11-4-10	WB9VGJ	Repeater fund	cash		10 00
11-4-10		Fifty-Fifty			<u>110.00</u>
Totals					\$ 240.00

### Expenses

11-4-10	K6UWV	David Passell	1020	refrshmnts	\$ 31.05
11-4-10	KB7TRE	Terry Pemberton	1021	NRA refsh	100.00
11-4-10		Allegra	1022	newsletters	31.01
11-4-10	WB9VGJ	John Broughton	cash	50/50	<u>55.00</u>
Total					\$ 217.06

Beginning Balance	\$ 3,893.06	October ending repeater balance	\$1,129.92
November Income	240.00	November repeater fund	<u>22.00</u>
Expenses	<u>&lt; 217.06&gt;</u>		
General Fund Balance	\$ 3,916.00	November repeater fund balance	\$1,151.92
Increase	\$ 22.94		

## From an outgoing Treasurer's point of view

By Mary Vince, AB7NK

For me, I believe in being an active member of any club I belong to. Being Treasurer wasn't in my plan, however, somehow I ended up there. Being Treasurer isn't a position that requires a tremendous amount of time. I would encourage others who would like to either serve on the Board or be an Officer to take the plunge.

This is YOUR club, be part of it. If you have suggestions, speak up or contact one of the Board members. Don't be one that sits back and complains how things aren't being done. If you have something to say, speak up!

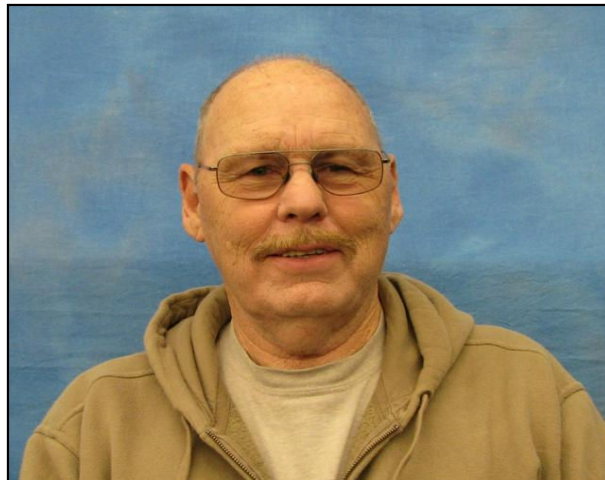
I'd like to thank Fred, N7PJN, and Katie, AE7AT for the great job of selling "tickies"! You both were a tremendous help. ■

# Yavapai Amateur Radio Club Election - November 4, 2010

The following club members were unanimously elected in accordance with the YARC Bylaws to serve a term as follows: President - two (2) years; Treasurer- two (2) years and Board Members - one (1) year. Each term of office will begin January 1, 2011. Also the current officers, Vice-President, Jim Ball, WB7UZV, and Secretary, George Imburgia, AD7RL, will complete their term in office at the end of 2011.



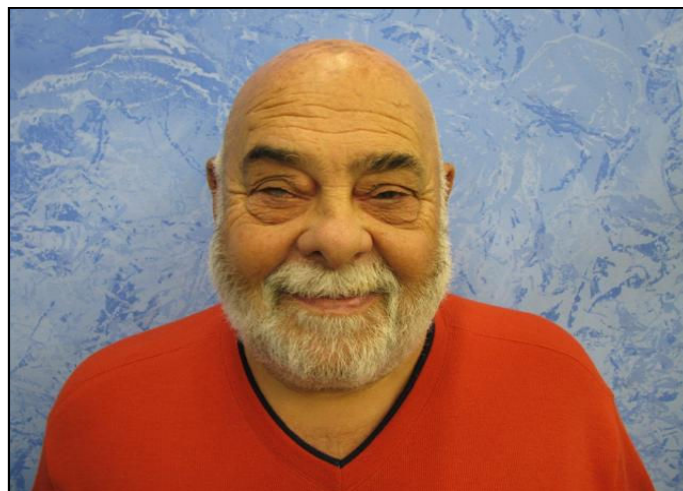
**President - Creighton Grotbeck, AD7YR**



**Treasurer - Tom Griswold, WN7E**



**Board Member - Will Taylor, AD7WW**



**Board Member - Ellis Rackoff, KE7NAP**



**Board Member - Neil Vince, KA7JAS**

**YARC Officers for 2010**

<b>President</b>	<b>Vice President</b>
Pete Morrison, K6VVR <i>pm_service@earthlink.net</i>	Jim Ball, WB7UZV
<b>Secretary</b>	<b>Treasurer</b>
George Imburgia <i>ad7rl@netsecs.us</i>	Mary Vince, AB7NK <i>ab7nk@ARRL.net</i>
<b>Board of Directors (includes Club Officers)</b>	
Terry Pemberton -- KB7TRE	
Will Taylor -- AD7WW	
Richard Bozeat -- KE7DTR	
Walter Schumann -- KF6SPS	
<b>Newsletter Editor:</b> Joe Oliver, AC6AA <i>joliver@cableone.net</i>	



By Lloyd, WA6ZZJ

## YARC SPECIAL EVENT COMMUNICATIONS...

There will be two events asking for our YARC special event communications starting the end of April 2011.

The Whiskey Off Road Mountain Bike event which looks to be the first event of the year is going to be a three day event running Friday April 29<sup>th</sup>, Saturday April 30<sup>th</sup> and Sunday May 1<sup>st</sup>. The events will be as follows:

Friday, April 29, 2011...

There will be a 15 Proof (miles) fun ride in the afternoon (starting time to be determined) on the same route as last year.

Later in the afternoon will be a 'Fat Tire Criterium' race which is a race over a closed circuit (typically about a mile through city streets). This leads to tight groups with frequent turns, which makes the possibility for crashes more frequent than traditional road races. This event will be run on city streets near downtown Prescott.

Saturday, April 30, 2011...

Two races beginning in the morning. A 50 Proof starting first followed by the 25 Proof both on the same routes as year. They are expecting over 1000 riders for these events.

Sunday, May 1, 2011...

This is the day for the Professional Racers. There will be two groups (1 male and 1 female) and they are expecting 100 riders. This will be run on the 50 Proof route with the men starting first and the females 1/2 hour later.

Operators needed:

Friday it would be nice to have at least 18 operators.

Saturday we will need 24 operators to comfortably staff the ride.

Sunday we will once again need 24 operators to comfortably staff the ride.

With the number of operators required over the three days it means that YARC members are going to have to really pull together so this event can be adequately covered. Members who have not participated in our events can sign on and if at all possible they will be placed with veteran special event communicators to see how the events are covered.

Then with only one free weekend between events there will be the 33<sup>rd</sup> annual running of the Whiskey Row Marathon on Saturday, May 14, 2011. This event usually has about 18 operators covering the necessary positions.

Get out your 2011 calendars and mark these dates. We will start compiling a list of prospective operator's right after the first of the year. All of these events have a number of charities that benefit. More information will be forthcoming on both of these events as the time draws closer. ■

Reprinted with permission from Robert Beasley, K6BJH



I told the guys you'd take it O.K. when I said you had the lousiest signal on the band!

## Upcoming Events

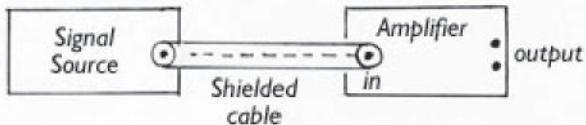
- **January 15, 2011** - YARC Birthday Party at Hotel St. Michael.
- **April 29, 30 & May 1, 2011** -Whiskey Off Road Mountain Bike event.
- **May 14, 2011** - Whiskey Row Marathon.

# Looping around

Reprinted from the "PCARA Update", February 2006 issue, courtesy of Malcolm Pritchard, NM9J

Several people in PCARA have asked about eliminating hum from interconnected equipment. This can be a common problem in audio/video setups as well as in amateur radio. The usual cause is a **ground loop**. Let's see how they can occur.

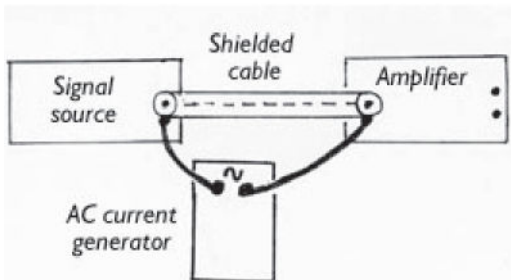
Take a look at the first picture...we have a low level signal source connected through a shielded cable to an amplifier.



*Low level signal source connected to an amplifier.*

No problems so far... the low level signal travels down the shielded cable to the amplifier, where a magnified version of the incoming signal is then produced at the output. An example of this arrangement in amateur radio might be an external microphone preamplifier feeding an HF transceiver. For an audio/video example, think of an external AM/FM tuner or an XM satellite receiver feeding an audio amplifier. We use shielded cable for the interconnection to prevent pickup of any unwanted signals — such as hum, noise or RF — on the inner conductor.

Now take a look at the second picture... we have introduced a relatively large AC signal across the shield connections at the two ends of the shielded cable.



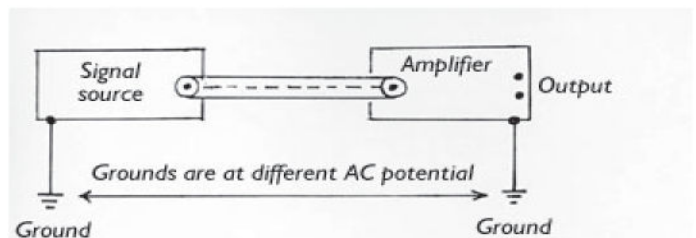
*A strong signal is placed across the shield wire of the connecting cable. The shield wire has some resistance.*

What do you think will happen? As far as the amplifier input is concerned, the signal running down the inner conductor is just the same as before, but the shield wire now has an extra AC current flowing through it. This introduces an extra signal at the input. If the AC signal was at 60 Hz power-line frequency, the input signal — and the amplifier's output — would now include a loud hum!

But wait — you may be saying — nobody would deliberately connect a large AC signal source across the ends of a shielded cable. Well, that's correct — but in a typical home there is no need to go looking for a large AC signal source, when one is already present courtesy of the power company.

Unwanted AC signals can be introduced whenever there are multiple **ground** connections for the interconnected equipment. (U.K. readers...for "ground" read "earth".) We tend to think of "ground" in idealized terms — as though we were living on a huge sheet of copper with excellent conductivity, so every place is at exactly the same potential. In practice, the ground is not perfectly conducting, and the electrical potential can vary from place to place because of currents flowing through the earth. Furthermore, the ground connection on three-wire electrical cords is not intended as an audio or RF signal reference — it's there purely for your safety. With the chassis connected to the ground wire, there is no danger of high voltages appearing on exposed metal. If the chassis should accidentally be touched by a live AC or high tension wire, the safety fuse in the supply line will blow.

Take a look at the third picture. We have our two items of interconnected equipment, each of which is connected to ground through a three-wire AC power cord.



*Each piece of equipment has its own ground connection thanks to a three-wire electrical cord.*

See **Looping Around**, Page 9

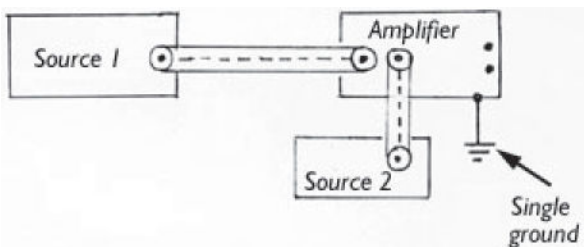
● **Looping Around** (Continued from Page 8)

Unfortunately, the ground for the signal source is at a different AC potential than the ground for the power amplifier. As a result, there is an AC signal imposed across the shielded cable, just as in our second picture. And just as before, current will flow and there will be a loud HUM on the amplifier's output.

This arrangement now includes a **ground loop**. An electrical loop exists which includes the shield of the shielded cable, the metal chassis of the equipment, the ground wires of the items of equipment, and the "ground" connection between the equipment. That connection might include some actual "earth" if items are attached to station ground, or it might be provided purely by the AC wiring between equipment. Remember that "ground" is not a perfect conductor, and differences in "ground" potential will produce AC currents through the shielded cable. (Incidentally, that same loop may also pick up strong RF signals if any are present.)

What can we do about this type of problem? Well, we could bond all the equipment together with heavy gauge wire — but this would only *reduce* the problem and not remove it. The usual fix for a ground loop is known as "single point grounding. We continue to interconnect all the equipment through shielded cables, but only **one** item in the collection of equipment is connected to ground. Now the shielded cables are no longer part of a loop and they can do their job of keeping unwanted noise and hum off the inner conductors.

Sometimes, single-point grounding is impossible to arrange. Perhaps several items of equipment have three-



*Single point ground: only **one** item of the interconnected equipment is connected to ground*

wire electrical cables for safety reasons, or perhaps an RF ground is required to keep the chassis from rising to a high RF potential. In this case, you can still convey audio signals between connected equipment, using a "Ground-Loop Isolator". The isolator includes a transformer or transformers in the cable path to pass audio-

frequency signals, while breaking the ground loop and preventing any circulating currents.

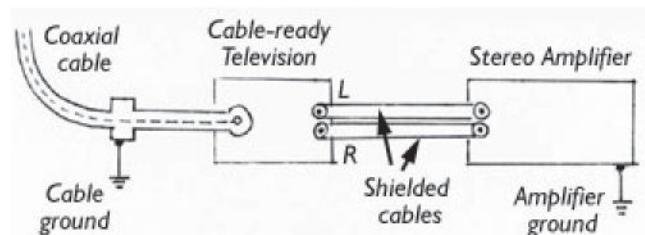


*Radio Shack 270-054 isolator prevents ground loops on stereo audio cables*

The Radio Shack 270-054 ground loop isolator is intended for home and car audio systems. Ground loops can arise in cars as well as in homes when, for example, a car radio is grounded to chassis in the dash and an amplifier or preamplifier is separately grounded in the trunk of the vehicle. External XM receivers are another source of ground loops. You might not pick up much 60 Hz electrical hum in a moving vehicle, but you will probably discover alternator whine and ignition pulses.

Another case of a ground loop can occur with cable-TV or over-the-air television. The shield of the coaxial cable line has to be grounded by the cable company near the point where it enters the home. External TV/FM antennas should be grounded in a similar manner. The aim is to prevent voltage surges from nearby lightning strikes from damaging equipment and occupants.

These days, the domestic cable TV converter or cable-ready television is likely to be connected to additional equipment such as an amplifier or Hi-Fi receiver with external speakers, as shown below.



Can you see the possibility of a ground loop here? If the cable TV coax is grounded and the Hi-Fi equipment is also grounded, then stand by for more hum!


There are two ways to cure the problem. One is to introduce a "Ground-Loop Isolator" into the shielded audio cables, just as in the previous example. Another

*See **Looping Around**, Page 10*



## Lightning in Arizona

Photo was taken of recent lightning strikes near Dick Diddams' (W7QHE) house in Chino Valley. You can see Dick's tower, his RV and a couple of other small antennas in the foreground.... the tower is 72-ft tall with a 20-ft mast above holding two Yagi antennas and an Inverted L. ■



**Free to Good Home  
Within YARC**

RCA Model 54-45 Oscilloscope with Manual. Good Condition.

Contact Roy Jackson, AD7FW at (928) 775-6592

## Exciting News – For Some

By Mary Vince, AB7NK

One of the club's most precious members will be leaving us the end of December. Katie, AE7AT and her family, Ken W7HMM, will be embarking on a new adventure in Idaho.

This determined young lady went from no license to holding an Extra class (AE7AT) in 3 years. Along the way she managed to ACE the General Exam and passed the Extra only 3 weeks later.

To date, Katie is the youngest Extra class operator the Prescott Area VE Team has had the pleasure to watch obtain all three licenses.

You will be missed Ms Katie – AE7AT! Keep in touch, stay safe, and God Bless! ■

## • Looping Around (continued from Page 9)

way is to break the loop at the coaxial cable carrying RF — all we need is a device that will pass RF signals without providing continuity for circulating currents. For example, you could obtain two balun transformers designed to match a 300 ohm TV antenna to 75 ohm coaxial cable and connect them back-to-back, as shown in the picture.



Two TV antenna matching transformers connected back-to-back can make a ground loop isolator.

You *must* check with an ohmmeter for no DC continuity between the input and output connections on each balun... some transformer designs maintain a DC path to bleed static off the antenna. You will need at least one balun transformer where the input and output windings are DC-isolated from each other. If you are having problems finding one, you can buy a 1:1 transformer from Klipsch Audio called the "MAGIC" (Mondial Antenna Ground Isolation Circuit) for \$69.99. See <http://www.klipsch.com>. Less expensive is the Dayton VIT-1 Video Isolation Transformer from Parts Express (<http://www.partsexpress.com>) or the Ground Breaker from Xantech. Be aware that these transformers may not transfer the lower frequency cable signals needed for broadband Internet and interactive cable services.



Dayton VIT-1 "Video isolation transformer"

Ground loops can also affect video — for example if you have a camera feeding baseband video signals down a 75 ohm coaxial cable into a monitor or a recorder, and both items of equipment are grounded, watch out for hum bars on the picture. There are isolating transformers available for video signals also.

Just remember that whenever you are hooking up audio/video or amateur radio equipment, each interconnection provides an opportunity for a ground loop. If you can anticipate the presence of these loops, you will be in a better position to fix any problems as they arise. ■ -NM9J

**For Sale**

Ten Tek Omni VI HF Transceiver with Model 936 Power Supply, Model 254 Antenna Tuner, and Communications Power, Inc. Desk Microphone.



All in good condition from a non-smoking shack. Being offered by a SK widow. **\$500 OBO.**

Contact Roy Jackson, AD7FW at (928) 775-6592

### VE TESTING RESULTS

By Mary, AB7NK



A very successful 90 minute testing session was held at Embry Riddle on October 30, 2010. There were 15 applicants which resulted in: 11 Technicians, 1 General and 3 Extra's.

Total results for 2010 were once again, very impressive. 38 new Technicians, 11 upgraded to General and 13 to Extra. Congratulations to all.

This was our last testing session for 2010. Thank you to all the VE's who have participated this past year. It's your dedication that makes our sessions run as smooth as they do. ■

### January 2011 - Testing

By request, there will be a special test session Friday, January 14, 2011 at 6:30 p.m. Seating is limited so please register early. All license classes will be tested. For more information or to register please email [ab7nk@arrl.net](mailto:ab7nk@arrl.net).

### Membership Count:

1st Thurs. in October.....173  
Gain/Loss.....+9  
1st Thurs. in November.....182



## YARC Birthday Party

By Mary, AB7NK

Plan on attending the YARC birthday party, Saturday, January 15, 2011 at Hotel St. Michael. Social hour begins at noon and lunch will be served at 1 p.m.

Registration forms are in the November newsletter, online at [www.w7yrc.org](http://www.w7yrc.org) (click on the YARC Party tab) or can be picked up at the December meeting.

Your payment (\$25.00 ea) must be received no later than Jan 8, 2011 (NO EXCEPTIONS). Payments can be mailed to the YARC address listed on the registration form or given to the treasurer at the next club meeting.



## 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

## 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,  
 2<sup>nd</sup> 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/](http://www.w7ara.org/Web/)
- [www.azrepeaters.net](http://www.azrepeaters.net)
- [www.azfreqcoord.org/listings.htm](http://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

