



YAVAPAI SIGNAL



The Yavapai Amateur Radio Club • Prescott, Arizona • DM-34 • Volume 25 – No. 3 • March 2010

From the President's Desk ...



Hello to all. This month started out like no other. The YARC meeting began with an unusual incident. Ken West, KE4ZWZ, suffered a stroke prior to the meeting and was treated by the Prescott Fire/Paramedics. After being stabilized at the scene he was transported to Yavapai Regional Medical Center emergency room and later admitted to the Intensive Care Unit. He was recently transferred to the Mountain Valley Regional Rehabilitation Hospital for rehabilitation. The rehabilitation hospital is located at 3700 N. Windsong Dr. in Prescott Valley, Arizona 86314, Room 307B. However, the room number may change. Visitation is limited to *Family Only* at this time. Cards and Letters are welcome. Please address all cards to "Ken West" at the rehab hospital at the above address. Let us all keep Ken and his family in our thoughts and prayers, for a speedy full recovery. Ken is a great guy, who enjoys Amateur Radio very much, and the camaraderie that goes with it. Ken has a scanner where he listens to the net and other frequencies of interest.

The busy schedule continues with Valentine's Day last Sunday, President's Day on Monday, Fat Tuesday (for those from the South), and Ash Wednesday (for the Catholics.)

We are starting to get very busy with all of the upcoming special events. First off is the Ragnar Del Sol 202.1 mile relay race from Prescott to Mesa. This event is scheduled for February 26-27, 2010 beginning at 06:00 A.M. This is the second year YARC has been asked to participate in this event by the Maricopa County Emergency Communications Group (MCECG). The event runs approximately 11 hours and we will be covering seven positions with staged starts. Our part will be Team Alpha, which covers from the start line at Watson Lake Park to Kirkland. These locations are called 'Exchanges', where the runners will exchange the 'Baton' to the runner of the next leg. This event is very popular, and is SOLD OUT this year. Yavapai Amateur Radio Club has been dedicated to public service for many years. One aspect of public service is working on Special

Event Communications such as Marathons, Bicycle Events, Walk-A-thons, and Road Rally's to name a few. This event is coming up, and will be history by our next month meeting on March 4, 2010. If you have never worked one of the public service events, I would encourage you to do so. They are a lot of fun!

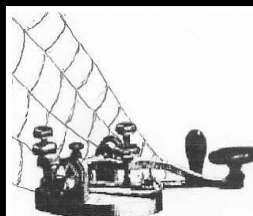
Please visit our web site (w7yrc.org) for additional information on other upcoming events, including, but not limited to, Jack W7JLC classes, and Mary AB7NK with VE Testing, etc.

We are gathering momentum with the upcoming Hamfest to be held at The Granite Mountain Middle School in Prescott, Arizona on Saturday May 29, 2010. Spaces are filling up, which is a good thing. Additional information can be found on our web site, www.w7yrc.org. We will have more about the available spaces on the web site very soon. Due to all the interest in the Hamfest, this should be a great event; I am looking forward to it.

Respectfully, Pete K6VVR

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Silent Key

Club member Don Volkema, WA6WNV, formerly KE7WOZ, became a silent key Feb.6, 2010.

Our condolences to Don's family and friends.

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 February 4, 2010 Board Meeting



Meeting was called to order at 1810 hrs by the President, K 6 V V R .

KF6SPS, WB7UZV, AB7NK, and AD7WW were also in attendance.

May 29, 2010 Yavapai Hamfest planning continued. VE testing to start on Saturday at 11:00 AM. Volunteers needed for set-up, cooking, cashier, clean-up. \$500 Budget for prizes proposed; WB7UZV and WB7RFY to coordinate. 25 local clubs, vendors and Search and Rescue organizations to be contacted.

Bob WB6ODR & Linda KD7EEO Smith are organizing a lunch at the Bonn-Fire Restaurant, 1667 S. Hwy 89, Chino Valley at 11:00 A.M., on Wednesday, April 14 or 21, followed by a visit to Peter and Mary Jane Attona's to see their extensive train layout. Email Lrsmith@cableone.net if you're interested.

N5RO needs help with BMMS program.

Update of club website is in progress.

Sharlot Hall hasn't responded with regards to Statehood Day. KB7TRE will arrange to hold event at GMMS.

Arrangements for Field Day pending response from City of Prescott.

On motion from AB7NK, seconded by KF6SPS, meeting adjourned at 1843 hrs.

Respectfully submitted,
George Imburgia, AD7RL
Secretary

Minutes of February 4, 2010 General Meeting

Meeting was called to order at 1920 hrs by K6VVR. A moment of silence was observed for Ken West, followed by the Pledge of Allegiance.

Attendance: 57, 49 of whom signed in.

Minutes of the December meeting were corrected and approved, on motion of AB7NK, second of WB7UZV, and no dissenting.

New member Dennis Grady welcomed, on motion of AB7NK, second of WB9VGJ and no dissenting.

Treasurers report presented by AB7NK; Beginning balance \$5079.56, January income \$1529.00, expenses \$2293.29 (largely for YARC Party). Repeater Fund balance of \$893.92.

COMMITTEE REPORTS:

VE: VEC AB7NK has scheduled testing sessions for March 6 and 27, 9:00 AM at Embry Riddle. Another session is scheduled for the Yavapai Hamfest, May 29, at 11:00 AM.

ARES/RACES: Presented by WA6ZZJ.

Friday, February 26 is the Ragnar Relay Series. Volunteers needed.

April 24 is the Whiskey Off-Road mountain bike race.

Marathon on May 1.

March of Dimes walk on September 11.

Skull Valley Loop Challenge on September 19.

NEWSLETTER: AC6AA reports all is well with the Yavapai Signal.

CLASSES: W7JLC reports one sign-

up for February 27 Technician classes, with several ERAU students expected to also attend. A General class may be held on March 13 & 20.

IRLP: W7JLC reports IRLP up and running on 442.350+ 100 HZ PL, and a temporary EchoLink connection is linked to the 147.220 repeater.

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

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

REFRESHMENTS: K6UWV announced plenty of cake, coffee and soft-drinks available; thanking Erika for the cake.

ELMER: KA7JAS continues elmering.

SCHOOL CLUBS: N5RO says BMMS is doing well, and making some HF contacts as the sunspot cycle builds up. They've contacted about a dozen countries, mostly via IRLP. Planning continues on field trips for Statehood Day and the Challenger Space Center. Volunteers are needed to work with this program.

YOUNG (and NEW) HAMS: KI6AHH reports that the group is doing well, and meets on the 147.22 repeater every Sunday evening at 7 PM. Everyone is welcome to join the net.

SLOW CODE: WB7UZV reports 4 participants on the Slow Code net on the 146.88 repeater every Sunday night at 7:30 to 7:45 after the Young and New Hams net. Practice code tapes are available. W1AW schedule is also available. Thanks YARC for use of the repeater.

FOX HUNT: K6VVR reports the transmitter for tonight's hunt is up. WB7RFY won last month's hunt. The next monthly T-Hunt will be held on the Sunday following the Super Bowl, 1 PM to 3 PM. Hunt will start at AZ State Credit Union on Gail Gardner Way and Willow Creek Road. De-briefing will be at Denny's around 3 PM.

FOOD BANK: A collection table is at the meeting.

OLD BUSINESS:

YARC/VVARA: K6VVR reports a combined board meeting for the two clubs is being arranged.

NEW BUSINESS:

Certificates of Appreciation awarded to the following members:

Will, AD7WW: Field Day Cook

Doug, KV8TD: Co-Chair County Fair

Bob, KC8BOB: Work at Fair and Prescott Rally

Lee, K7CBK: Class Instructor, Emergency Public Service

Lloyd, WA6ZZJ: A R E S / RACES, Public Service, Field Day

Patty, KD7VBG: Field Day, Hamfest Fliers

Tonight's Program was a Transmitter Hunt on GMMS campus.

50/50 Drawing of \$51.00 was won by WB7RFY.

Meeting adjourned at 2005 hrs.

Respectfully Submitted,

George Imburgia – AD7RL

Secretary

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



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

Yavapai Amateur Radio Club

February 2010 Treasurer's Summary

INCOME

1/30	AA1KS	AZ-WAC	cash		5.00
2/4	WB9VGJ	John Broughton	ARRL/R	1350	39.00
2/4	KD7MTJ	Al Crook	YARC Prty	8209	45.00
2/4	KF7GGS	James Rasmussen	2-patches, 1dec	cash	7.00
2/4	KC8BOB	Bob Thompson	R	1381	20.00
2/4	KE7DTS	Starla Thompson	R/F	---	---
2/4	KE7DTT	Alyssa Thompson	R/F	---	---
2/4	KE7DVA	Christy Thompson	R/F	---	---
2/4	no call	Dennis Grady	N	cash	20.00
2/4	KE4ZWZ	Ken West	N	604	20.00
2/4	AE7CG	Loren Singh	patch	cash	3.00
2/4	KD7YEG	David Morrow	R	1282	20.00
2/4	N5RO	Jim Clark	R	1031	20.00
2/4	KE7DTY	Rose Clark	R/F	---	---
2/4		50/50			<u>104.00</u>
Total Income					303.00

EXPENSES

2/4	K6UWV	Dave Passell – refreshments			19.32
2/4	Allegra	Newsletters		1130	32.87
2/4		U.S. Post Office (6mo box rental)		1131	30.00
2/4	TM	Secretary of State		1132	85.00
2/4	KB7TRE	K7A– refreshments (2/12/10)		1133	60.00
2/4	ARRL	WB9VGJ – renewal		1134	37.00
2/4	WB7RFY	50/50		cash	<u>52.00</u>
Total Expense					316.19

Beginning Balance	\$ 4,315.27	January ending repeater balance	\$893.92
January Income	303.00	February repeater fund	12.00
Sub Total	4,618.27	February repeater fund balance	\$905.92
Expenses	< 316.19>		
General Fund Balance	\$ 4,302.08		
Decrease	\$ <13.19>		



***A Toast from Ireland:**
 May you be poor in misfortune
 Rich in blessings
 Slow to make enemies
 Quick to make friends
 But rich or poor,
 Quick or slow,
 May you know nothing but happiness
 From this day forward*



Statehood 2010

By Terry Pemberton, KB7TRE



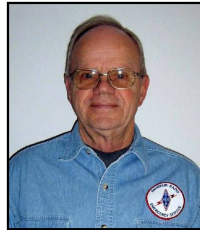
Granite Mountain Middle School students celebrated Arizona's 98th birthday from classroom 404 at GMMS on February 12th. Technology students were able to sit in on the station with K7GMG (Kilo 7 Granite Mountain Grizzlies) and YARC club members. Mr. Cordes also brought his Social Studies class to participate in the days festivities.

The location was changed for our Statehood day this year due to a variety of reasons, the primary one was that I had missed several days of school and needed to be in my classroom with the kids. This change actually created more student participation and that was good! As always YARC members stepped up and supervised the station while I conducted my class as normal. We did move our station from the ham shack to the main studio area in my classroom which created a more student friendly environment.

The activity was not without its challenges. Our last storm took out our HF antenna. Sixth grade students assisted with the removal of the damaged mast and antenna from the roof of my building, 8th grade manufacturing students helped to build shims and weld them to the new mast and YARC members came in after school to help install the new mast and G5RV antenna. The students were extremely excited about being so involved with the hands on activities for the station! Thank you, again, to Neil, KA7JAS; Will, AD7WW; Jim, WB7UZV; and Pete, K6VVR for all of your assistance as well. Thanks also to Bob, WB6ODR, for securing our special event call again this year, K7A.

Although we did not have a record number of contacts this year, the kids did have a fun day and I would like to thank all of the YARC members for their participation and support of the kids with this project each year. ■

73 de, Terry KB7TRE



By Lloyd, WA6ZZJ

ARES/RACES.....

ARES/RACES is in the process of planning training events for the upcoming year. At this time I am looking to a date in April for the 1st training session. Topics to be covered are still being looked at.

The first scheduled exercise event will be the annual Wild fire Exercise on Friday, March 26, 2010. This event usually only requires a minimum number of participants, but I am looking at ways more can be involved.

SPECIAL EVENT COMMUNICATIONS.....

Whiskey Off Road 2010...

The Whiskey Off Road will be the second special communications event for this year. It will be held on Saturday, April 24, 2009. This is a mountain bike event on trails in the Prescott National Forest. There will be three different lengths of rides which will include 15 mile, 25 mile and 50 mile distances. The 50 mile ride will go as far as Skull Valley. The radio assignments will include staggered start and ending times at our communications locations.

Race start times:

- 50 Proof (mile) - 8:00am
- 25 Proof (mile) - 9:00am
- 15 Proof (mile) - 10:00am

This will be the third year that YARC has provided communications for this event. There will be a signup sheet at the March YARC meeting. Last year there were 21 operators that signed up and we were able to place two persons to a position except for one waypoint. It would be nice to see the same number or more again this year.

Upon completion of their ride, participants plus spectators, volunteers, friends and family are all welcome to enjoy a community concert with special musical guests. The concert will be located in the same place as the events start/finish line, on Goodwin Street, allowing listeners to kick-back on the courthouse lawn, revel in the day's efforts and enjoy a cool mountain evening in good company - bring a

chair, steady vibes and good friends then relax on the lawn as the tunes play and the sun sets on Prescott's infamous Whiskey Row...

Whiskey Row Marathon 2010...

The 32nd running of the Whiskey Row Marathon will be on Saturday, May 1, 2010. This will be the 12th consecutive year that YARC has provided communications for this event. This event is one of the most challenging marathons in the United States due to it elevation gain. It starts out at 5280 feet and goes to over 7000 feet in the first seven miles and then drops down to just over 6000 feet at the 13.1 mile turn around point where the runners go back over the same route. There is also a Half Marathon, 10K and 2 mile fun run walk with this event.

Start time are as follows:

Marathon	6:00am
Half Marathon	7:00am
2 Mile Fun Run/Walk	7:15am
10K	7:30am

Proceeds from this event will go into the scholarship fund at the Prescott YMCA to assist children and families in financial need.

There will also be a sign up sheet for this event at the March YARC meeting. Last year we operated with 24 YARC members signed on and once again we were able to place two operators to a position along with a mobile in the YMCA van and a shadow position for the Race Director and two Quad mobile units covering the 26.2 mile course. This is an early morning event with some stations opening as early a 05:00 and others opening as runners advance along the route with the event shutting down at 12:00 noon.

The above two events are an excellent opportunity to get out in the fresh air of the Prescott National Forest and enjoy the wonders of nature along with participating in a communications event. For those who have not worked a special communications event, we will place you with one of our regular experienced operators and give you a chance to learn and see how events are run.

With these two events running on back to back weekends it will place an additional strain on getting operators to dedicate time to both events, so for those who have not participated before, please consider signing on and see just how much fun they are... ■

FM VHF/UHF Operation

From <http://www.k0nr.com/rwite/fmvhf.html>

SIGNAL REPORTS

FM signal reports are often given in terms of receiver quieting. A strong signal will fully quiet an FM receiver, while a weak one will be quite noisy. A "Full quieting" report is given to a signal which exhibits no background noise or hiss. Signal reports are often given in terms of "percent quieting" to give the transmitting station a better idea of the signal quality.

Remember that when using a repeater there are two communication paths at work -- the path from the transmitting station to the repeater and the path from the repeater to the receiving station. Either one of these paths can exhibit noise due to a weak signal. If the receiving station has a strong S-meter indication but the transmitting station sounds noisy, the transmitting station is probably weak into the repeater. Remember that the signal strength indicated by your S meter is due to the repeater and not the transmitting station.

A frequency modulated transmitter used on the VHF/UHF amateur bands should be set for a maximum frequency deviation of 5 kHz with full modulation. Unlike SSB transmitters, the signal strength of an FM signal is independent of modulation level. That is, a dead carrier produces just as much power as a fully-modulated signal. Excessive modulation of an FM transmitter does not improve the reception of the signal and often degrades it. On the other hand, inadequate FM deviation causes weak received audio. The level of audio heard on the receive end is relatively independent of received signal strength. This means that changing transmitter power does not affect the loudness of the audio at the receive end.

ANTENNAS FOR HANDHELD RADIOS

Almost everyone routinely uses a "rubber duck" antenna for handheld transceivers (HT). This antenna is essentially a quarter-wave which is shrunk down to about 1/4 of its usual length. Think of this antenna as a leaky dummy load, because its effectiveness is not much better than that. Its short length and the lack of a ground plane (which is required for a 1/4-wave style antenna) makes its

performance quite poor. Only the high sensitivity of FM repeaters make handheld radios with rubber duck antennas so useful.

For hiking, public service events, and other activities where radio range is important, a longer antenna is very helpful. Although there are full-size 1/4-wave and 5/8-wave models available, experience has shown that one of the most effective handheld antennas is the end-fed 1/2-wave. The telescoping 1/2-wave antenna with a BNC connector on the end is available from several manufacturers. This type of antenna can easily make the difference between having an unreadable signal and being full-quieting into the repeater.

When a good antenna is attached to an HT, the receiver often exhibits problems due to the much strong signals present. Strong signals (typically paging transmitters) will come blasting through the receiver and interfere with the desired signal. Radio amateurs usually refer to this as "intermod", short for "intermodulation". In reality, intermodulation has a specific technical definition that describes only some of these noise and interference problems. Independent of the name, the end result is that the HT receiver is overloaded by these strong signals. One solution to the problem is to use an external filter to block out signals outside the ham band. This type of filter will also block police, fire, weather and other non-ham signals, too.

TRANSMITTER TESTING

Try to keep test transmissions off the air by using a good dummy load instead. Be aware that even a slight amount of radio energy leaking from a dummy load may activate a sensitive repeater. Use a transmit frequency other than the repeater input even when testing with a dummy load. Some tests must be performed on the air, such as tuning an antenna for best match. Use a repeater frequency that is not used in your vicinity or a not-too-popular simplex frequency.

If your intent is to key the repeater to see how strong its signal is, don't kerchunk it. Instead, transmit your call sign and say "K0ABC testing". Remember, unidentified transmissions are illegal and annoying. Also, most repeaters have special circuitry which detects kerchunking and sends out a powerful signal that causes the offending radio to burst into flames. ■

CQ World-Wide WPX Contest

The CQ Magazine World Wide Worked All Prefixes (WPX) SSB (not CW) Contest is coming in March - specifically from 0000Z March 27 (5 PM on Friday) through 2359Z March 28 (4:59 PM on Sunday). I will be operating my station during that contest and would like to invite anyone who has even the slightest interest in HF phone operating to join me. You're welcome if you would like to watch or to operate. If you are a rookie or a veteran contestant, there will be help (or not) at all levels, from gentle coaxing to whipping and screaming (whatever you prefer). This contest is an everyone works everyone contest, with a very simple exchange - just a signal report and a consecutive serial number - and the computer will remind you of the next number! Let me know if you are interested so I can have the coffee cold and the Coke hot.

Email to n7cw@cableone.net or telephone at 771-8267.

73, Bud N7CW

Membership Count:

1st Thurs. in January.....190
Gain/Loss.....+3
1st Thurs. in February.....193*



Upcoming Events

- **February 26, 2010** - Ragnar Relay Race
- **February 27, 2010** - Technician License Class
- **March 13 & 20, 2010** - General License Class
- **March 26, 2010** - Wildfire Exercise
- **March 6 & 27, 2010** - VE Testing
- **April 16-18, 2010** - International DX Convention
- **April 24, 2010** - Whiskey Off Road
- **May 1, 2010** - Whiskey Row Marathon
- **May 29, 2010** - Prescott Hamfest



The International DX Convention is the world's premier DX convention, if you're a DXer or interested in any aspect of Ham radio you need to be at Visalia. Top DX operators from around the world will be there.

Pre-register (Before March 20, 2008) and SAVE.

For further information go to:

<http://www.dxconvention.org/index.html>

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.

March Program Speaker



Rick Aldom, W7STS, an Advanced SkyWarn spotter and former Aerostat Flight Director brings his weather monitoring experience to a discussion on how to support special events or disaster teams with weather monitoring and reporting. This is not a SkyWarn class, but rather how you can use the weather tools on the Internet to monitor and report conditions to stations in the field. This presentation will discuss the differences in radar products, and what product is best for different situations and how you can use these tools to anticipate potential threats. ■

Yavapai Amateur Radio Club to Conduct Free Amateur Radio License Courses

The Technician Class course will be a one-day course on Saturday, February 27, 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.

The General Class course will be a two-day course that will be conducted on Saturday, March 13th and 20th. The General Class license is the mid-level amateur radio license that provides world-wide HF radio privileges.

Examination sessions will be conducted on Saturday March 6 and March 27th for all license classes.

All classes and examination sessions 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.

Both courses 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 sessions 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 courses and examination sessions.

-For the course registration contact Jack Crabtree at jskra@cableone.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 Manuals will be made on February 16th and March 3rd. Contact Jack Crabtree at the above for more information. ■



A group of 40 year old buddies discuss and discuss where they should meet for dinner. Finally it is agreed upon that they should meet at Luigi's Restaurant because the waitresses there are really good looking.

10 years later, at 50 years of age, the group meets again and once again they discuss and discuss where they should meet. Finally it is agreed upon that they should meet at Luigi's Restaurant because the food and the wine selection there is very good.

10 years later at 60 years of age, the group meets again and once again they discuss and discuss where they should meet. Finally it is agreed upon that they should meet at Luigi's Restaurant because they can eat there in peace and quiet and the restaurant is smoke free.

10 years later, at 70 years of age, the group meets again and once again they discuss and discuss where they should meet. Finally it is agreed upon that they should meet at Luigi's Restaurant because the establishment is wheel chair accessible and they even have an elevator.

10 years later, at 80 years of age, the group meets again and once again they discuss and discuss where they should meet. Finally it is agreed upon that they should meet at Luigi's Restaurant since they have never been there before. ■

VE Testing Schedule

March 6, 2010
9:00 A.M.

March 27, 2010
9:00 A.M.

Embry Riddle University
3700 Willow Creek Rd
AXFAB Bldg #75 – meet in lobby

Contact ab7nk@arrl.net to pre-register

ANTENNA ROPE AND KNOTS NOTES

By Dick Diddams, W7QHE

ROPE SELECTION

A high quality rope satisfies the following four requirements:

1. **High breaking Strength:** determined by the rope material, the rope diameter and threading,
2. **High abrasion Strength:** determined by the rope material,
3. **Little Elasticity:** determined by the rope material,
4. **High Weather Resistance:** determined by the rope material. Sun rays and rainwater may damage the rope over time.

The following rope materials comply, in order of preference:

1. **Polyester (PL) Rope:** Dacron[®], Diolen[®], Terylen[®], Trevira[®],
2. **Polyamide (PA) Rope:** Enkalon[®], Nylon[®], Perlon[®],
3. **Polypropylene (PP) Rope:** UV-resistant only when black-colored.

As a general rule, any materials you will find in a sailing hardware shop will comply with “antenna-installation” requirements.

ATTACHING ANTENNA WIRE TO AN END-INSULATOR, LOAD OR BALUN: ROPE WITH STAINLESS STEEL CABLE CLAMPS

Never make knots in antenna wires, only in the ropes that connect the insulators to the supporting structures! The antenna wire is fixed with two 4mm stainless steel cable clamps to a small length of nylon rope that loops through the connection hole of the end-insulator.

A similar procedure is used to connect the antenna wires to (or as) the strain relief's of a balun or antenna feed point.

The benefit of attaching antenna wire in this manner is that the antenna wire remains straight. Hence, little additional mechanical strain is put to the antenna wire and secondly, contrary to knots, no additional inductance nor capacitance is introduced. The latter is especially relevant when the attachment point coincides with a high-current point along the antenna, as is the case with a balun or a load.

For your information, **STAINLESS STEEL CABLE CLAMPS** can be acquired in a sailing hardware shop.

TYING ROPE TO AN END-INSULATOR: THE BOWLINE KNOT

This is a most useful knot employed to form a loop that will not slip. In order to tie a rope to an insulator, it is convenient to use a **BOWLINE KNOT**. The bowline knot is a knot that neither slips nor jams. For added security, add a (Flemish) **Figure Of Eight** knot as a stop knot to the loose rope end.



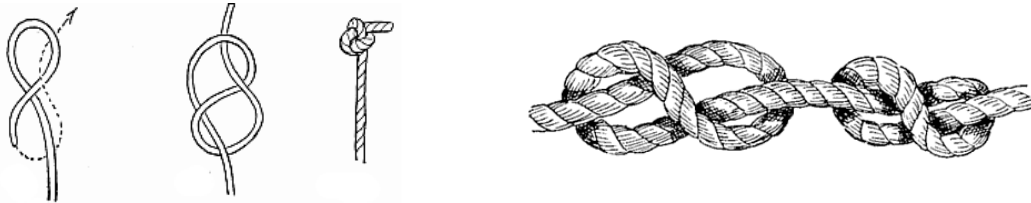
1. In “A” the rope is shown with a bight or cuckold's neck formed with the end over the standing part.
2. Pass “A” back through the bight, under, then over, then under, as shown in “B”.
3. Then over and down through the bight, as shown in “C” and “D”.
4. Draw taut, as in the first image above.

See Rope and Knots, Page 11

• **ROPE AND KNOTS (Continued from Page 10))**

PREVENTING ROPES UNRAVELING: THE FIGURE OF EIGHT KNOT

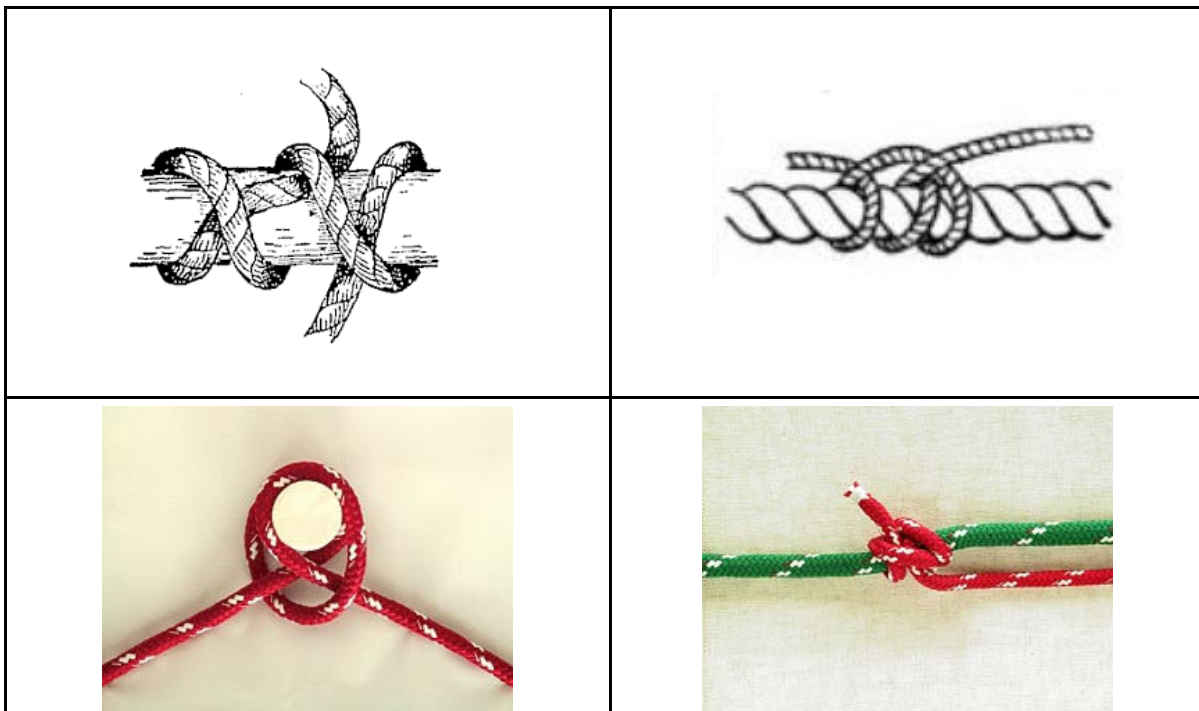
The figure of eight knot (also known as Listing's knot) is used to prevent ropes from unraveling; it forms a large knob and is a very important knot for both as it helps to stop ropes from running out of their retaining devices.



1. Cross the end of the rope over the top of the remaining rope making a q shape.
2. Pinch the top of the loop and twist it away from the tail of your q.
3. Pull the end of the rope or the tail of the q up through the upper loop from behind.
4. Pull both ends of the rope to tighten forming a figure eight.

TYING A GUYING ROPE TO AN ANCHOR POLE: THE ROLLING HITCH (MODIFIED CLOVE HITCH)

The balun was hung from a black PP rope with a slightly adapted **THE ROLLING HITCH KNOT** in combination with a **THE FIGURE OF EIGHT KNOT** at the loose end.



Two round turns are taken round a spar in which it is to be hauled and one half hitch on the other side of the hauling part. This is very useful, as it can be put on and off quickly.

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, N7PJM

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				
147.040+	107.2	Prescott Heights	W2YAV				
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	
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.		P mtn=927.3875
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
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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

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Many thanks to Bob Smith, WB6ODR, our Webmaster

