



YAVAPAI SIGNAL



The Yavapai Amateur Radio Club • Prescott, Arizona • DM-34 • Volume 23 – No.9 • September 2008

A Note From the Editor



Huntsville Hamfest - August 16 & 17, 2008

Pat and I recently returned from the Young Ladies Radio League (YLRL) Convention and Huntsville Hamfest in Huntsville, Alabama, where we enjoyed some Southern hospitality. We discovered that the plural of "You All" is "All You All".

The Huntsville Hamfest, otherwise known as "The World's Friendliest Hamfest", and ARRL Southeastern Division Conference was held in the Von Braun Center across from our hotel. There were several top name dealers, various presentations, and attendance was high.

While reflecting on the Huntsville Amateur Radio Club's success in sponsoring their Hamfest each year, my thoughts turned to our own club's success.

Since taking over as Editor of the Yavapai Signal, I have seen the Yavapai Amateur Radio Club blossom into a more active and energetic club. We have great attendance at meetings, and are involved in all sorts of public service and ham-related activities, such as Field Day, Hamfest, etc. It takes a lot of membership participation to handle these events -- especially at this time of year, when communications will be needed for so many special service events. However I'm sure that members will pitch in as usual to assist in these events.

A large part of YARC's success can be attributed to its leadership. We have been fortunate to have great officers and board members, willing to expend the extra time to move our club in the right direction.

As November elections are approaching, it is imperative that members step forward when asked and be willing to accept a nomination for office. We need to continue our forward progress by choosing the best candidates possible. ■

73 Joe AC6AA

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YARC Officers for 2008

President Terry Pemberton, KB7TRE kb7tre@cableone.net	Vice President Jack Ragen, W3IVQ ragen@cableone.net
Secretary Jeff Hanna, WB7RFY jeff668@commspeed.net	Treasurer Patti Halgunseth, KD7VBG kd7vbg@cableone.net

Board of Directors (includes Club Officers)

- John Broughton – WB9VGJ
- Tom Griswold – N6LSA
- Richard Bozeat – KE7DTR
- Walter Schumann – KF6SPS

Newsletter Editor: Joe Oliver, AC6AA

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 August 7, 2008 Board Meeting



Meeting was called to order by the President, KB7TRE, at 1845 hrs. Also in attendance:

KE7DTR, KF6SPS, N6LSA, W3IVQ, KD7VBG and WB7RFY.

Stickers were revisited as quotes received last month have changed; to proceed, costs will increase about 10 cents per unit. Referred to membership.

Banners: Multiple quote presented as requested at July meeting; budget to cover best upon review will be requested of membership.

Preliminary planning for after Holiday party addressed; need to verify with WB7RRQ.

County fair: KV8TD will have presentation. Insurance rider has been received. Joint VVARA/YARC event.

Field Day 2009 will be independent from VVARA as they have chosen to participate from atop Mingus as in prior years and YARC has chosen Watson Lake.

NRA birthday special event station has been published. November 17, Monday.

Nominating committee needs to be appointed for 2008.

Proposal to establish BBS was received and reviewed. With Web-site and Yahoo site, board sees no need at this time.

Suggestion to form youth adjunct to the club was reviewed in depth; was agreed to support in school efforts as

feasible in place of separate branch.

On motion of KE7DTR, second of KF6SPS and no dissention, meeting was adjourned at 1845 hrs.

Respectfully submitted,

Jeff Hanna, WB7RFY

YARC Secretary

Minutes of August 7, 2008 General Meeting

Meeting was called to order by the President, KB7TRE at 1900 hrs.

Following the Pledge of Allegiance, introductions were made.

Attendance: 67 of whom 47 signed in. Visitors include Laura Hutchinson

On motion of KE7DTR, second of W3IVQ, and no dissenting votes, John Bednarik (no call) was voted into the membership. On motion of KE7TWR, second of AB7NK, and no dissenting votes, William Cook, KF7SF was voted into the membership.

Minutes: of July 10, 2008 were accepted as published.

Treasurer's report by KD7VBG, stating starting balance of \$1880.91, Ending Balance of \$2156.74, and repeater fund balance of \$95.92 was accepted as read.

COMMITTEE REPORTS:

ARES/RACES: WA6ZZJ presented certificates from Yavapai County to Lane 2 fire participants.

Recent training activation was well done with County wide participation that revealed simplex paths between many of the locations. Plaque from Prescott YMCA was presented in rec-

ognition of Whiskey Row Marathon support by the club. KC7CBK reviewed route changes and challenges for the upcoming Prescott Cycling Club Loop Challenge; operator sign-up sheet is now available.

Newsletter: AC6AA reminds those whom have requested their newsletter to be mailed, but have picked up their copy at tonight's meeting to be sure to sign-in to reduce distribution costs.

IRLP: W7JLC reports "fine".

Patches: KD7VBG has both sizes available, your choice, \$ 3.00 each.

Shirts: W6CCD has a good selection of sizes available for immediate purchase.

Badges: KD7MTJ has WA7ZGK & AD7UR available for pick-up, and is accepting orders in lieu of our badge coordinator.

VE Testing: will be conducted at 9:00 am October 11, 2008. Advance attendance notice to AB7NK@arrl.net is appreciated.

Classes: W7JLC and volunteer instructors will conduct a one day Technician class on Saturday, September 22nd at the Embry Riddle campus. Contact Jack at JSCRA@cableone.net to register.

School Groups: Granite Mountain group will start-up 2nd week of August. Bradshaw Mountain group has charter for 12 members and is starting with 20, so already a waiting list. Bradshaw group is in need of equipment of most any type, contact N5RO@arrl.net. Countywide school fair in discussion; school clubs will combine efforts to staff a demonstration station and will need adult support.

Elmer: KA7JAS reports all OK for now.

Refreshments: K6UWV says enjoy and recycle.

Young Hams Net: KI6AHH reports recent operating constraints, but all going well.

Field Day: WA6ZZJ is pre-planning for 2009. All committee leaders and participants were recognized and thanked again for 2008. AC6AA was presented a club patch for 'winning' fox-hunt.

OLD BUSINESS:

Mentoring: Formal program benefits discussed; KE7NAP will chair; immediate volunteers include W7TQJ, AB7NK and KA7JAS.

Stickers: KB7TRE informed us of Quote change since last meeting. On motion of K6VVR, second of KE7DTR and no dissenting votes: Budget for sticker program is increased to 'up to' \$260.00 for discussed quantity.

Banner: KB7TRE reports on quotes received per membership request at the July meeting. On motion of WA6ZZJ, second of KF6SPS and no dissenting votes: Up to \$150.00 to be expended for weatherproof portable vinyl banner.

County Fair: KV8TD reviewed new location in exhibit hall and possible set-up and security options. Joint operation confirmed with VVARA. E-mail will be disseminated shortly with details and sign-up instructions. Other options for attracting attention to the booth, including looped video, etc... was considered. Final planning at September meeting.

After Holiday Party: Will be at St. Michaels again; more details to follow. Upon query, it was agreed that if a member wanted to offer as new items for the gift table, to please bring items wrapped. Adds to the fun.

NEW BUSINESS:

N7CW invites members to participate in the North American QSO (phone) contest from his station August 9 & 10.

Prescott Rally: Will be on October 10 & 11. Last year we had about 45 operators and could utilize same response. Please sign-up at www.prescottrally.com. KC8BOB will again coordinate for YARC. To add to the excitement, a motorcycle stage is included this year.

Presentation: With thanks to AB7NK. KE7TWR presented a framed newspaper article on the K7GMG school club for the school shack.

It was solemnly reported (unconfirmed) that KD7SBY, Bob Kamler became a SK on August 03, 2008.

KD5VRW reported on recent threat to computers.

Tonight's Program is George, AD7RL on computer 'hacking'.

Next Month's Program will be on AM-SAT, and as that speaker will be traveling from the valley, the program will be first at 7:00 pm with business meeting to follow.

50/50 Drawing: \$ 77.00 was won by Cheryl Severance, KD6FCZ.

On motion of WA6ZZJ, second of KE7DTR among many and no dissenting votes, meeting was adjourned at 2002 hrs.

Respectfully submitted,

Jeff, WB7RFY
YARC Secretary

This Month's Featured Ham

By Pat Oliver, K7DUC



Don Moore, W6DMM

Don first got his Novice license in 1958, as WV6GDB. He then earned his Tech license as KD6SZA. When he upgraded to General, he became W6DMM. He became inactive for a while and pursued other interests, but his interest became renewed when he moved from Alaska to Lancaster, California and contacted his neighbor, Jim Zimmerman, N6KZ (also a YARC member). Jim will be relocating to Prescott next spring (2009).

Don operates on all major bands except 220, and he doesn't do well on 160 meters. He uses an inverted V for HF bands. His equipment includes an IC-706MKIIG, a TS-711A 2 meter transceiver, and an FT-8100.

He tends to be a ragchewer and is not a DXer. He has a regular QSO on IRLP with another ham in Barstow, CA. Don has worked other modes, such as digital and packet, but he prefers phone. He feels that voice inflections and other clues as to a person's makeup is important to a conversation. He is not able to get the same feeling from CW. Since hams all have their own divergent personalities, he would like to know them to a greater extent.

Don has built many pieces of equipment over the years, starting with a Heathkit CW transmitter.

His most memorable contact was from Singapore, while he was there and talked to a friend in Lancaster.

Don has been in the aviation industry all his life. He started as a mechanic in 1964. He received his pilot's li-

cense the same year. He worked in general aviation for a couple of years. He applied at LAX and was a mechanic for "Flying Tigers" for 23 years. He went into maintenance control, which was the most rewarding job. Flying Tigers was bought by FedEx and Don accepted an aircraft engineering job. He worked for FedEx for 20 years, which position took him all over the world.

He and Carol, his XYL, have been married for 40 years, have 4 children, and 8 grandchildren. They have lived in Prescott for a year and really enjoy it here. They have lived many places, including Alaska and Lancaster, California.

Don is presently a member of YARC, but due to physical limitations he is unable to participate in many activities which he once enjoyed.

He would like to see the club progress by encouraging more young people into the hobby.

Don is a very knowledgeable and interesting member of YARC. We are fortunate to have him. ■

Upcoming Events



- **September 12 - 14, 2008** - ARRL Southwestern Division Convention in Mesa, AZ.
- **September 13, 2008** - March of Dimes Walk
- **September 13, 2008** - Groom Creek Classic 10K
- **September 18 - 21, 2008** - Yavapai County Fair
- **September 21, 2008** - Loop Challenge Bike Event
- **September 27, 2008** - Technician Class at Embry-Riddle
- **October 3 & 4, 2008** - Prescott Road Rally
- **October 11, 2008** - VE Testing @ Embry Riddle
- **October 18, 2008** - Diabetes Walk
- **November 15, 2008** - Rails to Trails Walk
- **November 17, 2008** - NRA Special Event Station at Gunsite, AZ.



By Lloyd, WA6ZZJ

ARES/RACES

The next ARES/RACES training meeting is scheduled for Saturday, November 1, 2008. This will be an exercise event with action in the southern part of Yavapai County as well as extending into the rest of the County areas. Preparations are already underway for this event. Circle the day on your calendar and be available to participate.

SPECIAL EVENT COMMUNICATIONS

Upcoming events:

Saturday, September 13, 2008

- Groom Creek Classic 10K
- March of Dimes Walk (?)

Sunday, September 21, 2008

- Loop Challenge Bicycle Event

Friday and Saturday, October 3rd & 4th, 2008

- Prescott Road Rally. Volunteers register at <http://www.prescottrally.com/>

Saturday, October 18, 2008

- Diabetes Walk

Saturday, November 15, 2008

- Rails to Trails Race

Operating at your next special communications event...

Operations

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

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

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

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

Tactical Calls - A number of special event nets use tactical calls. These allow an easy identification of a location or function. Know your tactical call and listen for it. In closing your transmission always use your FCC call sign.

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

Equipment

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

See **ARES/RACES Page 6**

Knot Tying Got You Down

By Stan Pozserski, KD1LE

Reprinted Courtesy of the NVARC "Signal"

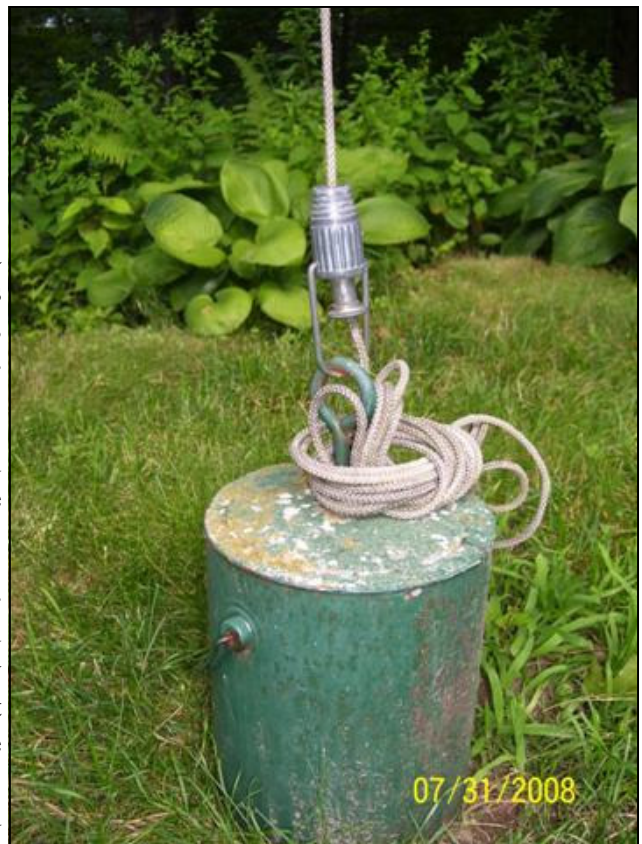
If you use rope to hold up all those dipoles, out in the antenna farm, then you get plenty of practice tying and untying those ropes around trees, branches, and whatever else is available. In my case it is a paint can full of cement with an eye bolt in it. This hangs on the antenna rope which goes through a pulley up in the tree.

There are a few problems with that arrangement. The trees and branches grow around the ropes. The knots gets tight, unless you use Williams knots. The ropes get wet and freeze in the winter.

I kept noticing this little device in the rope section at Home Depot. It is used to tension a pulley type clothesline loop. They are called clothesline tensioners or tighteners. It seemed reasonable, that if they could support the weight on a loaded clothesline, they could support my antennas. The device is a tubular shape with a loop attached to one end. The rope you want to tension feeds through the center of the device. It is a circular wedge that presses three balls into the rope to hold it in place.

This spring I tried a few around the yard. I have been very pleased with how easy it has been to tighten and loosen the lines attached to my buckets of cement.

The package recommends a particular size rope, but I have used it with a range of sizes. The balls will close together if no rope is inserted in the device, so the rope diameter could vary with some sacrifice in gripping strength. ■



● ARES/RACES (Continued from Page 5)

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

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

Headsets - At a number of events the noise level is very high. The event sponsors like a lot of loud music, bands and other methods of making noise to enhance the participants enjoyment. This though is counter-productive to the com-

municator. In situations like this the headset is a necessity. Make sure it works with your equipment.

Note Taking - Net control is not always the one who needs writing materials to keep track of things. All positions need writing materials. Remember the description of the missing runner? A pencil is preferred over a pen (remember the weather) and a note pad should be a staple in your equipment kit. The 4" by 8" "reporters notebook" is one of the handiest due to its size. Mechanical pencils don't need sharpening and are preferred over wood-lead pencils. At some events, various forms are provided. These range from missing person's reports to log sheets.

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

Treasurer's Financial Reporting Sheet



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

Patti Halgunseth, KD7VBG
Treasurer

Members Name	Dues Paid	Repeater Fund	Donations	Prize Money Paid Out	Net Cash In per Member
William Cook/N-KF7SF	\$18.00	\$2.00			\$20.00
John Bednarik/N-??????	\$18.00	\$12.00			\$30.00
Jack Crabtree/R-W7JLC	\$18.00	\$2.00			\$20.00
Sue Crabtree/R-N0GUT	\$0.00				\$0.00
David Passell/R-K6UWV	\$18.00	\$2.00			\$20.00
Ellis Rackoff/R-KE7NAP	\$18.00	\$2.00			\$20.00
Patti Halgunseth/R-KD7VBG	\$18.00	\$2.00			\$20.00
Neil Vince/ARRL	\$39.00				\$39.00
Mary Vince/ARRL	\$8.00				\$8.00
David Passell/ARRL	\$36.00				\$36.00
Patch			\$3.00		\$3.00
50/50			\$154.00		\$154.00
Cheryl Severance/KD6FCZ				\$77.00	(\$77.00)
					\$0.00
					\$0.00
Total:	\$191.00	\$22.00	\$157.00	\$77.00	\$293.00

Miscellaneous Club Expenses	Cash Out	Check Number
ARRL=Neil & Mary Vince/R	\$45.00	1026
ARRL=David Passell/R	\$34.00	1027
David Passell=Refreshments	\$37.64	1028
Dick Hughes=T-Shirts	\$110.14	1029
Joe Oliver=Stamps	\$42.00	1030
John Gross=Field Day	\$140.37	1031
YCFA=Fair Rental	\$90.00	1032
Bob Smith=Flags	\$47.56	1033
Allegra=Newsletter	\$30.18	1034
Repeater Fund	\$22.00	Cash

Club Funds Summary	Totals
Starting Balance	\$2,156.74
Net Expenses	\$598.89
Net Income	\$293.00
	\$1,850.85

Total: \$598.89

Repeater Fund: \$117.92
Cash Flow (\$305.89)

Have a Question or Need a Hand?

If it is on a subject related to Ham Radio, technical assistance is available from knowledgeable club members. Contact **Neil Vince, KA7JAS** at (928) 775-2158 or ka7jas@arrl.net



Ham Radio Technician Class

By Jack Crabtree, W7JLC

There will be a free one-day, 8 hour class for the Technician class amateur radio license starting at 8:00 A.M. on Saturday, September 27, 2008. This class will be held in the King Engineering and Technology Center, room KEC 132, at Embry Riddle Aeronautical University (ERAU) in Prescott. This class will prepare students for the Technician Class amateur radio license.

The license class will be free and is sponsored by the ERAU Eagle Amateur Radio Club and the Yavapai Amateur Radio Club.

The ARRL Ham Radio Technician Class License Manual will serve as our textbook. The License Manual retails for \$24.95, but I will be making a quantity buy of these books for \$20.00 each for those who want them and let me know by September 13. It will take 7-8 days for the textbooks to be received, and I will make the books available at that time if you want them before the class is conducted.

The exam for the license will be conducted on October 11th. The cost of the exam is \$14.00. The exam session will be held at 9:00 A.M. at the same ERAU location as described above. Additional details of the exam will be made available to those attending the class.

You may register for this class by sending an email to the address below. You will be placed on an email list, which will be used to disseminate further information and updates.

Remember, if you wish me to get you the License Manual text, you must let me know by September 13. Feel free to contact me if you have further questions.

Jack Crabtree, W7JLC
Volunteer Instructor
Yavapai Amateur Radio Club
Prescott, AZ
928-771-2344
jskra@cableone.net

VE Tidbits



by Mary Vince – AB7NK

The next VE testing will be Saturday, October 11, 2008 at 9:00 A.M. at Embry Riddle University., 3700 Willow Creek Rd., Bldg 72, Room KEC 132.

For a map of the Embry Riddle Campus, click on the link below.

<http://www.erau.edu/pr/tours/map.pdf>

All license classes will be tested & walk-in's are always welcomed. However, if you plan on testing, an email sent to ab7nk@arrl.net would be appreciated so we have an idea of how many VE's will be needed. This also gives us time to prepare your test packet, which saves time when it comes to paperwork.

This testing will be 2 weeks after the technician class which will be put on by Jack - W7JLC & his volunteers. If you're interested in taking the technician class, please contact Jack – W7JLC at jskra@cableone.net

Enjoy the rest of the summer and stay safe. ■

Does This Affect You?

Anyone who has requested a mailed newsletter, but now receives it via the YARC's Website, please notify our Secretary, Jeff, WB7RFY. This will save the club the expense of printing and postage. Members are notified by e-mail when the colored version of the "Yavapai Signal" is posted on the club website, in some cases, several weeks before a black and white printed copy is mailed to members.

Those attending a club meeting who are able to download the newsletter from the club website, should refrain from taking a printed copy home.

With your cooperation, sufficient copies of our newsletter will be available, and club expenses will be minimized.

The year was 1908

Submitted By Dick Diddams, W7QHE



A 1907 FORD

Show this to your children and grandchildren

This will boggle your mind, I know it did mine, even though some of it was the same when I was growing up!

The year is 1908.

One hundred years ago.

What a difference a century makes!

Here are some statistics for the Year 1908 :

The average life expectancy was 47 years.-----Only 14 percent of the homes had a bathtub.

Only 8 percent of the homes had a telephone.-----There were only 8,000 cars and only 144 miles of paved roads.

The maximum speed limit in most cities was 10 mph.-----
-The tallest structure in the world was the Eiffel Tower!

The average wage in 1908 was 22 cents per hour.-----
The average worker made between \$200 and \$400 per year.

A competent accountant could expect to earn \$2000 per year; a dentist \$2,500 per year.

A veterinarian earned between \$1,500 and \$4,000 per year, and a mechanical engineer about \$5,000 per year.

More than 95 percent of all births took place at HOME.

Ninety percent of all doctors had NO COLLEGE EDUCATION! Instead, they attended so-called medical

schools, many of which were condemned in the press AND by the government as 'substandard.'

Sugar cost four cents a pound.-----Eggs were fourteen cents a dozen.-----Coffee was fifteen cents a pound.

Most women only washed their hair once a month, and used Borax or egg yolks for shampoo.

Canada passed a law that prohibited poor people from entering into their country for any reason.

Five leading causes of death were:

1. Pneumonia and influenza
2. Tuberculosis
3. Diarrhea
4. Heart disease
5. Stroke.

The American flag had 45 stars.-----The population of Las Vegas , Nevada, was only 30!!!!

Crossword puzzles, canned beer, and ice tea hadn't been invented yet.-----There was no Mother's Day or Father's Day.

Two out of every 10 adults couldn't read or write.-----
Only 6 percent of all Americans had graduated from high school.

Marijuana, heroin, and morphine were all available over the counter at the local corner drugstores.

Back then pharmacists said, 'Heroin clears the complexion, gives buoyancy to the mind, regulates the stomach and bowels, and is, in fact, a perfect guardian of health.'

Eighteen percent of households had at least one full-time servant or domestic help.

There were about 230 reported murders in the ENTIRE! U.S.A.! -----And organized Barbershops didn't exist.

Now, I forwarded this from someone else without typing It all myself, and, it has been sent it to you and others all over Canada & U.S.A., possibly the world, in a matter of seconds!

Try to imagine what it may be like in another 100 years.

IT STAGGERS THE MIND! ■

The New Joys of Digital Radio

By Dave Flack

Reprinted courtesy of the FARS RELAY

In almost 50 years as a ham I've tried many communication modes including CW, AM, SSB, RTTY, packet, APRS and the newer 'sound card' modes like SSTV and PSK31. Some of the digital modes we now hear on HF have exotic names like Olivia, DominoEX, Hellschreiber and Throb. As with PSK, each of them uses the same rig-to-computer-soundcard hardware interface. Each also requires a software program to modulate and demodulate the signal, although several programs handle multiple modes. (For excellent explanations of modes like Hellschreiber try <http://en.wikipedia.org/>)

Why so many choices and what are they good for? Just as PSK is an improvement over RTTY in terms of bandwidth, readability, and reliability, each digital mode was created because someone believed it would do something especially well or better than an alternative. In other words, digital modes let us try new ways to communicate and explore opportunities to experiment and expand our knowledge.

One evening I was working K6SID across the bay in Alameda on 80 meters using PSK31. Howard has an ICOM 703 QRP rig running 10 watts to a stealth antenna he had just put up to get back on HF. In other words, he was running very low power to an inefficient antenna, and yet on PSK31 I was printing him 80%. I told him of my interest in other modes and we started trying them. We started with DominoEX and then went to Olivia. Each time we tried several data speeds and bandwidths. We soon discovered that each time the printing was nearly 100%, in other words superior to PSK31.

So if these newly improved digital modes are so great, why don't we see more people using them? Each of these modes has its proponents and detractors—think AM vs. SSB, AMTOR vs. PACTOR, RTTY vs. PSK31 etc. Over time the newer, superior technologies usually win out in terms of popularity. This takes time for several reasons. First, today we aren't dealing with single alternatives but a very large number of options. Add to this the difficulty—or near impossibility—of knowing by ear what mode you are receiving and it's easy to stick with RTTY's familiar song or the narrow line of PSK31 on your digital software's waterfall.

One of the things I enjoy most about ham radio is that every time there is a technological problem one of us

jumps in to provide her or his assistance. For example, there are six common forms of DominoEX and eight of Olivia. Even if you have worked these modes many times, it can be nearly impossible to 'guess' what is being sent. The answer comes from what is called RS/ID and RS/ID detection. The freely distributed 'MultiPSK' software implements RS/ID to provide automatic recognition of any mode anywhere in the band and then locks in the correct transmit frequency! Now we just need more software that provides RS/ID.

If you don't have RS/ID detection software you can always start with PSK31 or RTTY and then ask the other station to switch. This has been my most successful way of trying the new modes. When our PSK signals dipped into the noise Gary, W7FSI, in Stanley, Idaho, and I were able to keep our QSO going for quite a bit longer on 80 meters. Nor do you need a PC to work the digital modes. There is Mac digital software, though it offers much more limited mode choices. Recently, Bill, VE7NBQ, in Vancouver, B.C., gave me my first MFSK16 contact using his Mac. Again we went from PSK to MFSK16 when our signals faded from QSB. MFSK16 provided 100% solid copy.

In the end, the biggest limitation to the new digital modes isn't what kind of computer or software you have, but what you are willing to try. Right after my MFSK16 contact I dropped down to 160 meters where I had been working to make a contact using PSK31 for months. Up the band I heard a RTTY station calling CQ and returned his call. In all my years as a ham I had never tried RTTY! We had a nice chat and he told me he had worked over 50,000 RTTY contacts. I asked him if he had ever heard or tried any other digital modes on 160 and he said no, that "RTTY worked just fine for him."

If you have limited HF resources, including low power and antenna restrictions, I urge you to try the new digital modes. You'll meet new friends while you expand your technical understanding.

Digital Resources

MFSK Technology

A great introduction to MFSK technology appeared in the February 2001 QST, www.arrl.org/tis/info/pdf/0101033.pdf

Multiple Mode Software (I have omitted the predominately PSK/RTTY software of which there are many programs.)

- MultiPSK is both the most complete and complex of the digital software. There is a free and paid version. You can download it from f6cte.free.fr/index_anglais.htm.
- DM780 is digital software designed to work in conjunction with Ham Radio Deluxe, a complete rig control sys-

See Digital Radio Page 11

• Digital Radio (Continued from Page 10)

tem. However it also works as a stand alone program. DM780 has a much easier to use interface than MultiPSK in my opinion, and its logging program is very sophisticated. However it currently lacks RS/ID and some of the more exotic modes/configurations.

- Multimode for the Mac is the most complete I could find: www.blackcatsystems.com/software/multimode.html. It is available in free and paid versions.

News Groups

I rely heavily on Yahoo news groups for help with most questions, both through searching message archives or just posting. Here are a few of the ones I use:

Digital Radio News Group groups.yahoo.com/group/digitalradio/?yguid=166697396 Fairly technical, but will happily offer advice to newbies

Multipsk News Group
groups.yahoo.com/group/multipsk/?yguid=166697396

This Group was formed for users of the Software suite, Multipsk, Developed by Patrick Lindecker F6CTE.

Ham Radio Deluxe
hrd.ham-radio.ch/

HRD has its own bulletin board to support its users and developers. You can also download from this site. The software is free. I donated to the site and would have paid for this software, it's that good.

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Program Speakers

September: Patrick Stoddard, WD9EWK on "AMSAT."

October: Tom Griswold, N6LSA & Bob Rosevear, WB7RRQ on "Mobile Installations", (Quads and off-road).

November: Bud Semon, N7CW on "Contesting".

Which Way?

By Dick Hughes, W6CCD

Back in 1958, shortly after leaving the Air Force, I went to work for IBM. They put me in a class to become a customer service engineer. The students were required to eat lunch together so we could get additional training during our "spare" time. Occasionally, to make the training more interesting, we would be given riddles to solve. This is one of those riddles.

A man and his family are taking a trip to a resort in the desert. The road into this resort has a fork that should have a sign. If they take the wrong road they will drive into terrible badlands, and will probably die before someone finds them.

They were told that, in case the sign is missing, they will have to ask directions from the local Indians. They were also told that there are two tribes of Indians in the area. They look the same, talk the same, and there is no way to tell one from another by their physical attributes. The only difference between them is that one tribe always lies, and the other tribe always tells the truth.

Sure enough, when they get to the fork in the road, the sign is missing. They see two Indians standing at the side of the road. They are allowed to ask only one question of each Indian. By asking the proper questions, they will determine the correct road to take. What are these two questions?

Remember that there is no way to distinguish these tribes by looking at them. The family has no idea if the Indians are both from the same tribe, which tribe it might be, or if there is one from each tribe standing before them. And once a question is asked of one Indian, they can't ask that one any more questions. Just one question for each Indian.

I will publish the answer in next month's newsletter. 73, Dick - W6CCD

Membership Count:

1st Thurs. in July.....143

Gain/Loss.....+2

2nd Thurs. in Aug.....145*

* Includes five 3-month memberships



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" W 112°27'15.4")*
informal – all are invited

8:00 a.m.

Masonic Lodge

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

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

Area Repeaters

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

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

For more Repeater Information & Listings refer to:

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

YAVAPAI AMATEUR RADIO CLUB

P.O. BOX 11994

PRESCOTT, AZ 86304

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

Many thanks to Bob Smith, WB6ODR, our Webmaster

