

THE YAVAPAI SIGNAL

**THE YAVAPAI AMATEUR RADIO CLUB
PRESCOTT, ARIZONA DM-34
VOL 11 - No. 12
DECEMBER, 2001**



WELCOME TO THE YAVAPAI AMATEUR RADIO CLUB

The Yavapai Amateur Radio Club (YARC) is an ARRL affiliated club. The club participates in many activities in the tri-city area including providing communications for

local events, emergency communications, volunteer exams, and promotion of the hobby throughout the community. Membership in the YARC is open to any interested amateur or non-amateur alike. The YARC meets at 7:00 PM local time on the 3rd Thursday of every month at the Granite Mountain Middle School, 1800 Williamson Valley Rd. in Prescott. It is about 1/2 mile north of Iron Springs Rd 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 PM local time on the 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 6:45PM local time on the 147.220+ repeater on Mingus Mtn.



Club Repeater

The local 146.880- MHz repeater is the official adopted repeater for the YARC. It is located on the hill above Willow Creek Rd and requires a PL of 100.0 Hz. If you hear a 1400 Hz pulsing tone, the repeater is on backup battery power and usage should be limited to necessary communications. The 147.040+ (100.0 PL) repeater is back up and running in Prescott Heights. Many thanks to Bill Kafka, W2YAV for the upkeep and use of the repeaters.



YARC OFFICERS for 2001

President

Dale Leslie-N7XFD
daljerles@webtv.com

VicePresident

Terry Pemberton-KB7TRE
kb7tre@aol.com

Secretary

John Wilson-KM6BF
km6bf@cableone.net

Treasurer

David Passell-K6UWV
davidrex@northlink.com

YARC BOARD OF DIRECTORS includes Club Officers

Immediate Past President

Lee Cunningham-KC7CBK kc7cbk@arrl.net

Bob Kane-K7KOL arkane57@yahoo.com
Frank Homeff-WA6JBV

NEWSLETTER EDITOR - John Wilson-KM6BF

NEW OFFICERS FOR YARC ENSURE FUTURE OF CLUB



Questions about the future of the club have been put to rest.

New officers for the club will be officially in place at the December meeting. The position of President was left up to a vote of the members between John Wilson-KM6BF and Fred Zimmermann-N7PJM, with John getting the majority of the votes. Unopposed for the other positions were Frank Homeff-WA6JBV for Vice-president, Robert Tilman-K7CJW for Secretary, and David Passell-K6UWV for Treasurer. They were declared for the positions by a single vote of the Secretary.

Also, a new Board of Directors will consist of the 4 club officers, Dale Leslie-N7XFD as immediate past president, and Lloyd Haigunseith-WA6ZZJ, Richard Hughes-W6CCD, and Robert Smith-WB6ODR.

Thanks to all who stepped forward to ensure the future of the club.

A NOTE FROM YOUR PRESIDENT-ELECT:

When I originally found out that there was a problem finding someone for the position, I reluctantly stated that I would consider it. I did not want the club to go away. We have put too much time and effort into it and to close it would be a shame. Thanks to Fred for stepping up, too!

I appreciate having to opportunity to be a member of the club for 8 years and thank all of you for giving me your confidence in voting for me. I hope I will not let you down.

I do have a few ideas for the club and will present them to you as time permits. For now, I will also continue with the newsletter, although I would like to pass it on to someone willing to continue it.

What I would ask of the membership is more participation in club activities. If you have an idea, let us know. If you have something to share, tell us. If you have a story, send it to me. There are activities→

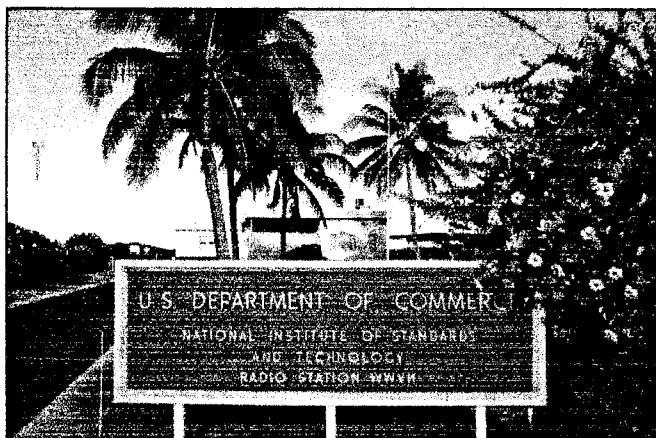
that need more than 3 or 4 people-Field Day, Special Event Stations, Parade and Marathon communications, and other events. Even if you can only do 1 event, you've done your part. Come to the meetings! Bring a friend! Spread the word! Get the picture?

I would also like to pass my sincere thanks to all that have done their part for the club in the past, especially to Dale Leslie-N7XFD for stepping up to the plate last year and taking the reigns of the YARC for 2001 and doing a great job.

Let's have a great 2002 and make Amateur Radio better for all!

John Wilson-KM6BF

HERE IS SOME INTERESTING INFORMATION ABOUT TIME STATIONS WWVH and WWVB NIST Radio Station WWVH



NIST radio station WWVH broadcasts time and frequency information 24 hours per day, 7 days per week to listeners worldwide. The station is located on the Island of Kauai, Hawaii on a 12 hectare (30 acre) site near Kekaha at Kokole Point. The information broadcast by WWVH includes time announcements, standard time intervals, standard frequencies, UT1 time corrections, a BCD time code, geophysical alerts, marine storm warnings, and Global Positioning System (GPS) status reports.

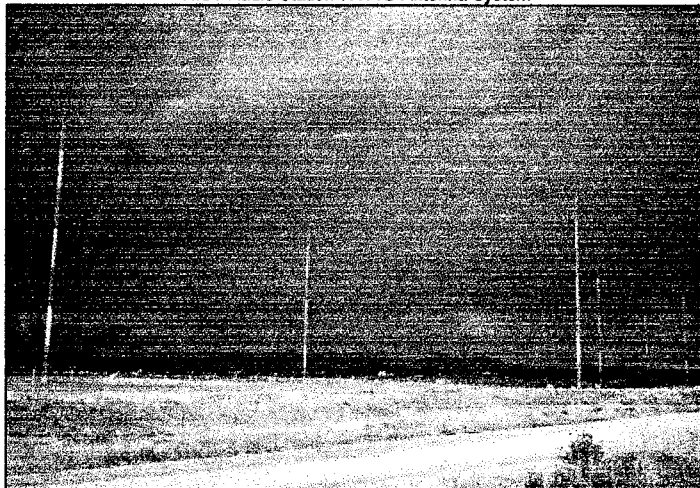
Broadcast Frequencies: WWVH operates in the high frequency (HF) portion of the radio spectrum and radiates 10,000 W on 5, 10, and 15 MHz, and 5000 W on 2.5 MHz. Each frequency is broadcast from a separate transmitter. Although each frequency carries the same information, multiple frequencies are used because the quality of HF reception depends on many factors such as location, time of year, time of day, the frequency being used, and atmospheric and ionospheric propagation conditions. The variety of frequencies makes it likely that at least one frequency will be usable at all times.

Antennas: The 5, 10, and 15 MHz antennas are phased array vertical dipoles. They consist of two half-wave vertical dipoles that are separated by a quarter-wavelength and driven 90 degrees out of phase. These antennas radiate a cardioid pattern with the maximum gain pointed toward the west. The 2.5 MHz antenna is a half-wave vertical that radiates omnidirectional patterns. Each frequency also has

a vertical monopole standby antenna connected to the standby transmitters, in the event that the primary system fails.

Modulation: The signals broadcast by WWVH use double sideband amplitude modulation. The modulation level is 50 percent for the steady tones, 50 percent for the BCD time code, 100 percent for the second pulses and the minute and hour markers, and 75 percent for the voice announcements.

NIST Radio Station WWVB Antenna System



NIST radio station WWVB is located on the same site as WWV near Ft. Collins, Colorado. The WWVB broadcasts are used by millions of people throughout North America to synchronize consumer electronic products like wall clocks, clock radios, and wristwatches. In addition, WWVB is used for high level applications such as network time synchronization and frequency calibrations.

Signal Description: WWVB continuously broadcasts time and frequency signals at 60 kHz. The carrier frequency provides a stable frequency reference traceable to the national standard. There are no voice announcements on the station, but a time code is synchronized with the 60 kHz carrier and is broadcast continuously at a rate of 1 bit per second using pulse width modulation. The carrier power is reduced and restored to produce the time code bits. The carrier power is reduced 10 dB at the start of each second, so that the leading edge of every negative going pulse is on time. Full power is restored 0.2 s later for a binary "0", 0.5 s later for a binary "1", or 0.8 s later to convey a position marker. The binary coded decimal (BCD) format is used so that binary digits are combined to represent decimal numbers.

The time code contains the year, day of year, hour, minute, second, and flags that indicate the status of Daylight Saving Time, leap years, and leap seconds. For more details, view the WWVB time code format.

WWVB identifies itself by advancing its carrier phase 45° at 10 minutes after the hour and returning to normal phase at 15 minutes after the hour. If you plot WWVB phase, this results in a phase step of approximately 2.08 microseconds.

Antenna and Transmitters →

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WWVB uses two identical antennas that were originally constructed in 1962, and refurbished in 1999. The north antenna was originally built for the WWVL 20 kHz broadcast (discontinued in 1972), and the south antenna was built for the WWVB 60 kHz broadcast. The antennas are spaced 857 m apart. Each antenna is a top loaded dipole consisting of four 122-m towers arranged in a diamond shape. A system of cables, often called a capacitance hat or top hat, is suspended between the four towers. This top hat is electrically isolated from the towers, and is electrically connected to a downlead suspended from the center of the top hat. The downlead serves as the radiating element.

Ideally, an efficient antenna system requires a radiating element that is at least one-quarter wavelength long. At 60 kHz, this becomes difficult. The wavelength is 5000 m, so a one-quarter wavelength antenna would be 1250 m tall, or about 10 times the height of the WWVB antenna towers. As a compromise, some of the missing length was added horizontally to the top hats of this vertical dipole, and the downlead of each antenna is terminated at its own helix house under the top hats. Each helix house contains a large inductor to cancel the capacitance of the short antenna and a variometer (variable inductor) to tune the antenna system. Energy is fed from the transmitters to the helix houses using underground cables housed in two concrete trenches. Each trench is about 435 m long.

A computer is used to automatically tune the antennas during icy and/or windy conditions. This automatic tuning provides a dynamic match between the transmitter and the antenna system. The computer looks for a phase difference between voltage and current at the transmitter. If one is detected, an error signal is sent to a 3-phase motor in the helix house that rotates the rotor inside the variometer. This retunes the antenna and restores the match between the antenna and transmitter.

There are three transmitters at the WWVB site. Each transmitter consists of two identical power amplifiers which are combined to produce the greatly amplified signal sent to the antenna. One transmitter delivering an amplified time code signal into the north antenna system, and one transmitter feeds the south antenna system. The time code is fed to a console where it passes through a control system and then is delivered to the transmitters.

Using two transmitters and two antennas allows the station to be more efficient. As mentioned earlier, the WWVB antennas are physically much smaller than one quarter wavelength. As the length of a vertical radiator becomes shorter compared to wavelength, the efficiency of the antenna goes down. In other words, it requires more and transmitter power to increase the effective radiated power. The north antenna system at WWVB has an efficiency of about 50.6%, and the south antenna has an efficiency of about 57.5%. However, the combined efficiency of the two antennas is about 65%. As a result, each transmitter only has to produce a forward power of about 38 kW for WWVB to produce its effective radiated power of 50 kW.

Performance

The frequency uncertainty of the WWVB signal as transmitted is less than 1 part in 10¹². If the path delay is removed, WWVB can provide UTC with an uncertainty of less than 100 microseconds. The variations in path delay are minor compared to those of WWV and

WWVH. When proper receiving and averaging techniques are used, the uncertainty of the received signal should be nearly as small as the uncertainty of the transmitted signal.



UPCOMING EVENTS OF INTEREST



KIDS DAY-January 5, 2002.1800 to 2400Z.

Kid's Day is intended to encourage young people (licensed or not) to enjoy Amateur Radio. It can give young people hands-on on-the-air experience so they might develop an interest in pursuing a license in the future. It is intended to give hams a chance to share their station with their children.



January 2-6, 2002-ARRL RTTY Roundup

Object: Amateurs worldwide contact and exchange QSO information with other amateurs using digital modes (Baudot RTTY, ASCII, AMTOR, PSK31, and Packet—attended operation only) on 80, 40, 20, 15 and 10 meter bands. Any station may work any other station.



January 19-21 ARRL January VHF Sweepstakes

Object: To work as many amateur stations in as many different 2 degree x 1 degree grids as possible using authorized frequencies above 50 MHz. Foreign stations work WVE amateurs only.



January 17-YARC Meeting 1900 ←



February 16-17 ARRL International DX Contest-CW



March 2-3 ARRL International DX Contest-Phone

More detailed information on Contests and Special Events can be found in most amateur publications such as QST, Worldradio, and others.



NOVEMBER MEETING

November 15, 2001

The meeting was called to order at 1902 by Vice-president Terry Pemberton-KB7TRE, in the absence of the President, and was followed by the Pledge of Allegiance. 1 visitor to the club was John Stevenson-WW7AA. John is settling down in Prescott and is in the process of setting up his station. John also picked up a membership application for the club. There were 29 present.

The minutes of the October meeting were approved as read by club Secretary John Wilson-KM6BF. The club treasurer's report was dispensed of, in the absence of the treasurer.

OLD BUSINESS

Bob Kane-K7KOL made a motion to rescind the motion to close the club. The motion was moved, seconded, and passed. Fred Boughton-KB2CT will take orders for any members needing club badges.

Committee Reports

Bob-K7KOL announced that there were members for all positions and that they would be elected at the meeting. Bob Smith-WB6ODR stated that the →

unopposed candidates could be elected by a single vote of the Secretary, and was done so. There were 2 members for position of President, Fred Zimmermann-N7PJN and John Wilson-KM6BF. Members present voted by ballot and John-KM6BF got the most votes for the position.

Lloyd Halgunseth-WA6ZZJ made a call for new members to join RACES/ARES. He stated that they work and train together and provide a vital service to the community and are ready when needed. Contact Lloyd for information.

Bob Smith-WB6ODR announced that the annual fee for the club's web-site would be due soon. It was moved and seconded to pay the annual fee of \$59.40 as soon as possible. The motion passed. In the absence of the Treasurer, Bob will pay the bill and submit it for reimbursement.

Terry-KB7TRE announced that the Special Event Station would again be held at the Sharlot Hall Museum on Thursday, February 14, 2002. Bob-WB6ODR reminded us that the K7A call sign was again reserved for this event. All members are encouraged to come and participate, along with the students from Granite Mtn. Middle School.

NEW BUSINESS

Bob-K7KOL thanked the volunteers for their willingness to serve the club as elected officers and what it did to keep the club going. He then entertained a motion to eliminate the Repeater Fund and combine it with the general fund. After much discussion, a second motion was made by John-KM6BF to table the original motion for 6 months and revisit it for further action. That motion was seconded and passed.

Bob Rosevear-WB7RRQ announced that there would be a potluck picnic on Mingus Mtn. on Sunday November 18 at 1400. All are welcome to come and enjoy. John-KM6BF read a letter from the ARRL regarding a change in the way memberships are handled through clubs. Renewals will no longer result in a commission to the club. However, NEW ARRL memberships will result in a commission to the club. It was announced that the mother of YARC member Tony Masvidal-W7PCU has recently passed away. A sympathy card will be sent in the name of the club. Bob-K7KOL asked for members wanting to serve on the Board of Directors. They will be Lloyd Halgunseth-WA6ZZJ, Richard Hughes-W6CCD, Robert Smith-WB6ODR, and the immediate past President Dale Leslie-N7XFD.

The break was called at 2005.

Following the break, Fred-N7PJN discussed a situation he encountered using a solar panel to charge a battery. With no regulation the panel will overcharge. An article in the October issue of QST has plans for a charge regulator. Fred obtained one, built it, and stated that it works great. He also discussed the recent letter sent by the ARRL for funds to help efforts of saving spectrum and band plans, especially 40 meters. He encouraged members to donate to the cause.

With no further business to conduct, the meeting was adjourned at 2030.

Respectfully Submitted,

John Wilson-KM6BF
Secretary



SPEAKERS WANTED! Want to make a presentation to the club? Got a favorite subject or experience you would like to share? If you do, we'd like to hear from you! Programs of interest are always needed for club meetings. Share your knowledge or experience with the rest of the club at our meetings. Contact Lee Cunningham, KC7CBK for more information.

THE NEWSLETTER!

If you have anything to share, please feel free to submit it for inclusion in the newsletter. We welcome your suggestions, comments, stories, personal experiences, or other items related to the hobby. Send e-mail to: km6bf@cablone.net



FROM THE MAILBOX

Got this from Kris-KC7UNK

CAP Celebrates 60 Years of Service

On Saturday, December 1, the Civil Air Patrol celebrated its 60th birthday. This auxiliary of the U.S. Air Force marked the day with several events and the proclamation of Civil Air Patrol Day. The Civil Air Patrol was officially established as a volunteer civilian defense organization on December 1, 1941, just one week before Pearl Harbor. During World War II, CAP coastal patrols flown by civilian volunteers were used to search for enemy submarines along the Atlantic and Gulf coasts. Armed with bombs and depth charges, the CAP Coastal Patrol indeed found 173 German subs, attacked 57, hit 10 and sank two. Following the recent terrorist attacks of September 11, Civil Air Patrol volunteers carried out support missions nationwide. These included radio communication platforms, aerial photography, reconnaissance patrols, and the transport of blood products and government officials. With its 60,000 volunteer members, the organization performs 85 percent of the inland search-and-rescue missions nationwide.

Happy Birthday CAP – not too shabby for a 60-year old!



WE WANT YOU! Membership in the Yavapai Amateur Radio Club is \$20.00 for 1 year. Newsletters will be mailed only to those members not attending a meeting and current

on dues. Those in arrears 3 months will be dropped from the membership list. Dues can be mailed to the club PO Box or given to the club treasurer at any meeting.



FROM THE PAST, PAST, PAST-PRESIDENT

Bin ta Texas, Agin!



My wife and I spent two weeks with our son and his family over the Thanksgiving holiday in Rhome, Texas, a burg of about 500 people, 18 dogs, a mule and about 3 jack-pumps, suckin oil from the perma-frost. Rhome is found cinched to CSA (that's Confederate States of America) highway 287, some 25 miles north of Fort Worth.

The family spread is on 2 and ½ acres facing a crik to the south and the north pole to the north. There aint nothin between it and that barber pole up north but buffalo grass and bobbed wahr!! That open chute to the arctic gave us a good dose of Texas winter when a good ole "blue norther" cold front blew in one night from Oklahoma and left everything to the south covered in ice.

A local talk show host was commenting about some of the good ole boys raggin on the pickup drivers slippin and sliding on the ice and how good the GOB four wheelers was! The host came back with some solid Yankee logic: Four wheels slippin and slidin' on ice aint no better'n two wheels. The result is the same, no locomotion, and when your locked up, trying to stop, it don't matter how many wheels you got!! →

Texas is always a good place to improve your conversational skills, using the King's English, of course!

Aside from the time-honored water tank and silo, the only other mark in the sky is the huge tower and beam of W5F--, a reticent ham, whom I've tried contacting numerous times by radio and in person by knocking on his door. He never answered, so I left a note to call me – he never did that either. W5 Leave Me Alone is sporting a 35-foot tower with a four element beam, a Ringo on top of that and sloping VEE's coming off the tower. I guess he's serious, but doesn't want to spend too much time with a K7 guy. Too bad, his loss!!!

We drove the southern route to the "Lone Star State" this time, avoiding any possible bad weather along I-40 and the northwest shank of the pan-handle. This routing was via I-17 to Phoenix, I-10 to Tucson, I-19 to Green Valley for a visit with friends and an overnight stop. Did you know that I-19 mileage markers are in kilometers? I didn't, and was puzzled by the distance signs between exits. Off ramps came up awfully quick when you're thinking miles and the signs are saying kilometers!

We left Green Valley and went on through Bisbee and Douglas, stopping at the huge fence and ditch at the border in Douglas. It's beautiful country in SE Arizona, and I highly recommend a drive through the area. It's so different from what we have here in Prescott. The remains of the open pit mine in Bisbee look like a huge drill bit went searching for Hell. What a massive and aching ulcer we left in the earth's dermis. With the collapse of copper prices, the wound won't scab over for a long, long time.

Douglas is stark – reminded me of some east European borders with the high fences, ditches and border police. While standing next to the 15 foot deep ditch and 10 foot high fence separating Arizona from Sonora, Mexico, I couldn't help but notice how suburban Nogales, Mexico resembled suburban Nogales, Arizona. Both neighborhoods appeared the same, and along the fence/border were houses sporting long wire antennas, beams and dipoles. The US Border Patrol eventually got tired of us gawking at the fence and advised us that they were on duty and would appreciate us moving along. Being patriotic, we did as we were told, and took with us the comment of one officer: he said, "no matter the height of the fence, they climb it like it was a flight of stairs."

Leaving Arizona, we made our way through Lordsburg, New Mexico and picked up I-10 eastbound for a night's rest in Las Cruces. Had a good rest in the La Quinta motel and then continued on to Van Horn, Texas where we picked up I-20, vectoring northeast to the "oil patch" of Midland and Odessa.

On the shoulder of I-20 in Midland is a huge sign, "HOME OF THE PRESIDENTS", honoring George 41 and 43. George 43 of course, is a huge hero in Texas, pitting the American might against the Taliban, which we all thought was a rock group until 9-11. We thought about stopping for lunch in Midland, but the stench of oil permeates the region, and isn't pleasant to the nose unless the Permian Basin is also filling your pocket with money.

Further along I-20, we came to a small town called Clyde!! Remember last year when I wrote about meeting Clyde in the town of Claude, Texas? Well, now we're in Clyde, and I'm wondering if we might meet a local yokel named Claude when we stop for a break at the local DQ country watering hole. Dairy Queen blankets this open, flat prairie like spilled paint on the kitchen table. Mickey Dee plays second fiddle in this part of the country.

I found no Claude in Clyde, so we kept on truck'n through Abilene, Weatherford, Fort Worth and Texas' navel, Rhome! The time with our family was great and too quick.

The return trip retraced our tracks, with a recent ice and snow storm adding some interesting views of over-turned eighteen-wheelers laying along the berm or in the median of I-20 near Abilene. We were told by a trusted source in the local DQ that 16 trucks "lost it" on the ice and snow and jack-knifed or corkscrewed their way into their current repose, laying exposed and vulnerable to the gawking eyes of voyeurs speeding by.

Our overnight stop was El Paso, hugely grown since our last visit a few years ago. El Paso is the hub of Mexico-US truck traffic, with Mexican trucks coming as far as the border, then separating from their trailers while US

tractors continue the haul into Texas and other states. Likewise, US tractors transfer their trailers to Mexican tractors for goods moving south. This inefficiency should be rectified soon with a revisit to NAFTA's intent.

That's about it from the prairie lands, where the men are strong, the women are beautiful, and the children are above average, as Garrison Keeler would say!

I wish all a very healthful and happy holiday season and 2002.

73, Bob Kane K7KOL



FROM THE "I can't believe I heard it on amateur radio" files:

"That new mobile rig I bought doesn't get much use since I installed it in the wife's car!"

"Take all the bells and whistles out of that radio and all you have is an expensive paperweight!"

"Can you imagine what it would be like if all the repeaters in Arizona were linked together?" (I couldn't even imagine that mess!)

"I'd like to get computer control for my radios, but I'd have to buy a computer."

"The repeater seems to work better when no one is on it!"

"I finally accepted the fact that I can't work long-distance on my HT!"

"I bought that new rig On-Sale, even though I couldn't afford it."

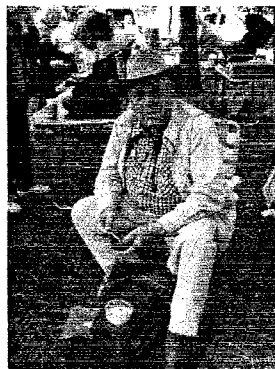
"I heard someone use the term 'Glow-In-The-Dark-Radios'. Are they nuclear powered?"

"Maybe Santa will bring me my license upgrade!"



OTHER NEWS OF INTEREST

From Pen Brown, KJ7KL - Senior Communications Correspondent and News Analyst



Dale-N7XFD and Bob-WB6ODR enjoying the picnic on Mingus Mtn.

THE YAVAPAI SIGNAL – DECEMBER, 2001

TAKE A NUMBER: FRN NOW MANDATORY FOR FCC AMATEUR APPLICANTS

NEWINGTON, CT, Dec 3, 2001—Starting today, anyone filing an Amateur Radio application will be asked to supply a 10-digit FCC Registration Number (FRN) issued by the new Commission Registration System, or CORES. The requirement applies to FCC applications filed on-line or on paper. The FCC also has supplanted Universal Licensing System (ULS) registration with "CORES/Call Sign" registration, so applicants no longer need to register separately in both systems.

Most, if not all, hams who registered previously with the ULS now have been issued an FRN, although they may not know it yet. The FCC just completed another cross-registration to include those already on the ULS books within the CORES "entity registration" database. Amateurs can learn their FRNs by doing a license search on the FCC's Universal Licensing System page. FRNs also are displayed via the ARRL call sign server on ARRLWeb as well as via many other similar call sign servers that use FCC licensee data. Not to be confused with the Licensee ID Number, an FRN must be obtained before filing any FCC application.

The FCC has updated its ULS page to reflect the new reality and to make the page a bit less confusing. Amateurs not yet registered in CORES who click "CORES/Call Sign" registration will be redirected to the CORES site to complete that process. Amateurs who click "Online Filing" are advised to proceed to CORES to register if they do not already have an FRN, then return to ULS for filing.

Those filing on-line applications now are asked to supply an FRN or a Taxpayer Identification Number (TIN—a Social Security Number for an individual) plus a password. The password typically is the same for both CORES and ULS. For applicants already registered in CORES but who supply a Social Security Number, the system displays the applicant's FRN for future reference and urges its use.

The process is a bit more daunting for new club station applicants, who now will be asked to register in CORES as business entities. The FCC has done away with so-called Assigned Taxpayer Identification Numbers, or ATINs, that clubs and those not eligible to hold a Social Security Number once had to secure from the FCC. When registering with CORES in preparation to applying for a new Amateur Radio club station license, club station trustees will have an opportunity to claim an "exception" to providing a TIN or Social Security Number. In the case of a Section 501(c)(3) tax-exempt organization, club station applicants may instead supply an Employee Identification Number (EIN).

Such applicants also may opt to simply leave the FRN field blank on Form NCVFC 605. ARRL VEC Manager Bart Jahnke, W9JJ, says that in those cases, the Club Station Call Sign Administrator (CSCSA), such as ARRL, will register the club station entity in CORES on the applicant's behalf.

The FCC has announced that starting next March it will again require applicants to provide a date of birth, but the Commission says it has no plans to make that information public as it once did. The paper version of FCC Form 605 and the NCVFC Form 605 used by Volunteer Examiner Coordinators already request date-of-birth data, but providing it does not become mandatory until March.

The FCC now only accepts hard-copy Form 605 applications bearing edition dates later than March 2001. To obtain a current copy of Form 605, visit the FCC "Forms" page or contact the FCC Forms Distribution Center, 800-418-3676.

The FCC also has announced that, effective for all payments received by the Commission on and after December 3, 2001, it will only accept FCC Form 159 (Remittance Advice) dated February 2000 or later. The February 2000 version requires applicants to provide an FRN. A copy of the acceptable version is available on the FCC Web site. At the left side of the page, click on "Form 159". This allows either printing a copy of Form 159 or completing the form on-line and printing it.

The FCC recently began supporting Microsoft Internet Explorer as well as most later versions of Netscape for filing on-line applications via the ULS. Some amateurs using Internet Explorer have reported problems filing, however, and the FCC says those users may need to run a Java Applet IE plug-in to correct the problem. It's available from the FCC. When a "File Download" dialog box appears, click on "Run" or "Open" (depending on your version of IE), and the plug-in will download and install automatically. If a "Security Warning" box appears, click "Yes."

For help with password issues or problems initiating an on-line filing using Internet Explorer, contact FCC Tech Support weekdays for assistance, ulscomm@fcc.gov, or call

202-414-1250. For more information about the Commission Registration System or on obtaining an FRN, contact the CORES Help Desk, cores@fcc.gov, or call 877-480-3201.

MARS AGAIN LETTING US TROOPS "PHONE HOME"

US Army Special Forces on duty in Islamabad, Pakistan, and in other undisclosed locations have begun keeping in touch with home via Military Affiliate Radio System—MARS—phone patches. Army Military Affiliate Radio System Headquarters here said that MARS members in all three services—Army, Air Force and Navy-Marine Corps—are gearing up for greatly expanded phone-patch operations as the holidays approach.

MARS phone patches make it possible for deployed troops to call their families in the US from areas where commercial connections are not available. Specially trained Amateur Radio operators enrolled in MARS provide the connection between military shortwave stations deployed overseas and the telephone system back home. During the Vietnam War, phone patches were a major source of comfort to families and service members alike. MARS responded again during Operation Desert Storm.

Phone-patching has taken on new life over the last several years as Special Forces members were deployed on peacekeeping missions to Kosovo, Macedonia, West Africa and other areas that lack regular or affordable phone service.

"Most of our contacts lasted less than 15 minutes and were to the wives," said a communications sergeant recently returned from a three-month Special Forces mission in Africa. "All the guys wanted to make sure everything was running smoothly in their absence."

Successfully completing a patch gives a big lift to the MARS amateur in the middle, too. "You never know who you will meet on these [high] frequencies," said one East Coast MARS member, who called it "a privilege" to serve as an Army MARS phone-patch operator.

These days, calls from overseas might originate from battery-powered backpack transceivers with a power of 20 W or less, but hams on the US end of the circuit using ordinary Amateur Radio gear and antennas are usually able to make a workable connection. Even the more sophisticated military base stations can experience problems, however. One overseas communicator reported that turning on a linear amplifier tripped the circuit breakers on the local power system.

Amateurs interested in joining MARS should contact their state MARS director or visit the Army, Air Force, the Navy-Marine Corps MARS Web sites. Thanks to Army MARS and Bill Sexton, N1IN (*From The ARRL Letter Vol. 20, No. 47, November 30, 2001*)



ARES/RACES NEWS

The Yavapai County ARES/RACES Nets are held Monday evenings at 1845 hours on the 147.220 VVARA Mingus Mountain repeater. The 147.260 Mt. Union Net is held immediately following the 147.220 Net at approximately 1900 hours. Future plans call for linking these two repeaters for emergency and Monday net use. Once we have the repeater link system in place both nets will be combined to begin at 1845 hrs.

Looking back on ARES/RACES events of 2001 we had two training exercises. The Countywide COMEX in March and the NASA Fire Exercise in May. As with any exercise we learned areas that we did good in and areas we need improvement. That's why they say 'no exercise is ever a failure'.

In July the packet node antennas on Mt. Union were upgraded and later some of the frequencies were changed to establish Mt. Union →

as a hub for emergency as well as regular packet in Arizona. For those interested the aliases and frequencies are now:

Davis 145.030 Union 145.010 Union2 145.710

The Yavapai County ARES/RACES Communications Van took part in three parades. The Prescott Frontier Days Parade on June 30th and the Chino Valley Parade on September 1st as well as the Cottonwood Christmas Parade on December 8th. It was also on display at the opening of the airport connector road on September 8th. Events like this allow us the opportunity to showcase Amateur Radio in front of a large segment of the general public.

The Yavapai Amateur Radio Club participated in four public service communications events with several of the Clubs members helping out. The March of Dimes Walk America in April, The Whiskey Row Marathon in May, The Frontier Days Parade in June and the Prescott Forest Rally in October. Events such as this aid our emergency communications skills by giving us excellent experience in setting up and operating under various conditions and locations. It also puts Amateur Radio and the Club in the public eye.

CALLING AMATEUR RADIO OPERATORS. In the wake of the September terrorist attacks in New York and Washington, many in our community have wondered how to help. Getting involved with emergency preparedness is one way to be of service. I have received telephone calls and e-mails from amateurs wanting to get involved, but more help is always needed.

ARES/RACES has radios and/or antennas installed in several locations throughout Prescott and the County to provide emergency backup communications for public service agencies. We are in need of Amateur operators for training to operate at these locations. Not only terrorism, but also telephone and power outages, storms, and major accidents can cause considerable disruption. ARES/RACES members are first line amateur radio responders and may be asked to operate from our agency sites or in the field alongside community officials.

If you are not already a member, please take the time to become involved. Contact myself, Lloyd Halgunseth WA6ZZJ, Lee Cunningham KC7CBK or Walt Loesche WF7J, to join and participate. It is a rewarding experience.

I want to wish everyone a HAPPY HOLIDAY SEASON.

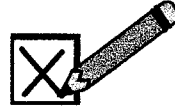
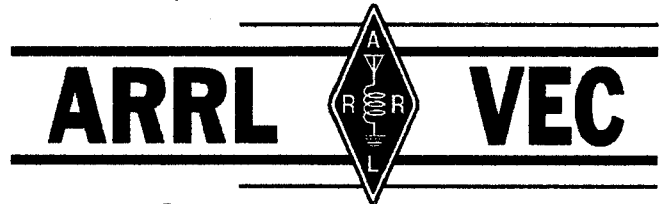
73, Lloyd Halgunseth WA6ZZJ
Yavapai County ARES/RACES DEC/Radio Officer
(520) 717-2706 wa6zzj@cableone.net



ARRL MEMBERSHIP APPLICATIONS

The ARRL no longer allows clubs a portion on renewals. However, a new program effective October 1, 2001 allows clubs to keep a larger portion of NEW ARRL applications. If you are not a member of the ARRL, join now through the club. Submit your application to me or at any meeting. Remember to include the envelope too. It will save us a few cents on postage.

Thanks. David Passell-K6UWV-Treasurer.



Volunteer Examiner Testing



The tentative schedule for testing in 2002 will be (all Saturdays) 2/09, 5/11, 8-10, and 11/09 at 10:00AM. The new location will be at the Masonic Lodge on Willow Creek Rd (by K-Mart). Additional sessions may be held as needed. All those attending for tests must have **ORIGINAL** license and and a copy, **ORIGINAL** CSCE's and 1 photo ID. (VE's-remember to bring and wear your VE - ID Badge!)

Special test sessions may be accommodated according to demands, as needed. The test fee for 2002 has not been announced yet.. Further information can be obtained by contacting John Wilson-KM6BF at 636-1228 or Dave Rutledge-W9KRQ at 541-1225.

YOUR LOCAL PRESCOTT AREA VE's

AB7KE	Joan Tremper	AB7KF	Bob Nichols
AB7VH	Ruth Enabnit	K7KOL	Bob Kane
K7NGK	Don Broadston	KC7AGL	Don Muller
AB7SK	Ginger LeGendre	KK7JH	Billy Peters
KG7OL	David Miller	K17EB	Bill Thrift
KJ7KL	Pen Brown	N6LIK	Bob Hoffa
KM6BF	John Wilson	W2YAV	Bill Kafka
W7DC	Bob Harkey	W6CCD	Dick Hughes
W6HDP	Bill Jackson	W9KRQ	Dave Rutledge
	WB6ODR	Bob Smith	

VERDE VALLEYAMATEUR RADIO EXAMS- 2002

Location- New fire station, Rimrock, Az.- McGuireville exit #293 off 1-17. The fire station is about 1 V2 miles east of 1-17 on the left hand side. Time- 7:00 PM

Dates: January 11, 2002 March 1, 2002
 May 10, 2002 July 12, 2002
 September 13, 2002 November 8, 2002
 Walk-in candidates will be accepted.

Exams will be held for all Amateur class licenses. Those wishing to upgrade should bring an original and a photocopy of their current license and any CSCE's that you now hold. Photo identification is required for all exams. At the present time a \$10 fee is charged which can change at any time. Pre-registration is not required, but a call or e-mail to one of the examiners will be appreciated.

Contact person- Mark Coker- KC7JOG Phone Number- (928) 567-5446
 E-mail- KC7JOG@webtv.net

VE Team Liaison- Robert Eis, Jr. WAOW Day Phone- (928) 821-1703
 Evening Phone- (928) 284-3807 E-mail- reis@sedona.net



Jim Glasscock-N7JG SK. A Memorial Service was held on Friday, December 14, 2001 at the Senior Center in Williams, AZ. Jim was an active ham and will be missed by all.



WEEKLY INFORMATION NET - WEDNESDAY NIGHTS @ 7:00 PM
146.880- (100.0 PL) IF YOU DON'T HAVE PL, TRANSMIT ON
146.880 SIMPLEX WHEN THE REPEATER DROPS OUT. ALL
AMATEURS WELCOME.

MONTHLY MEETING - 3rd THURSDAY @ GRANITE MTN MIDDLE
SCHOOL 7:00PM (N 34° 34' 22.6" W 112° 29' 45.1")

NEXT MEETING THURS, JANUARY 17, 2002 @ 7:00pm

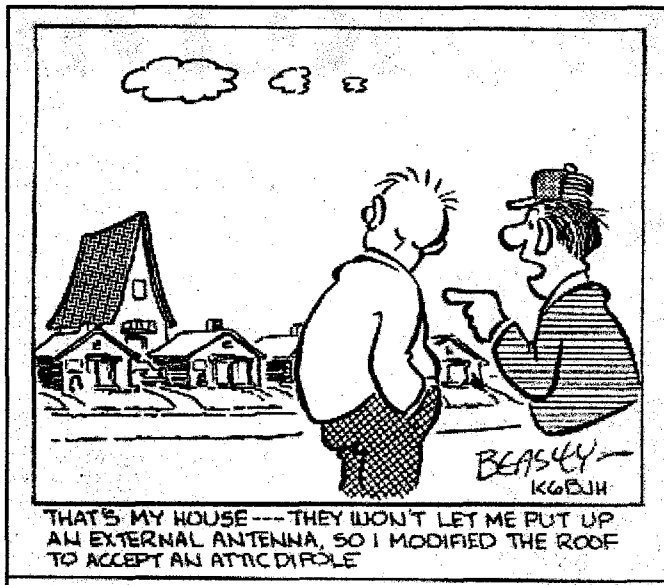


Wednesday Morning Breakfast-Iron Horse Café, S. Hwy
89 in Chino Valley (N 34° 43' 56.5" W 112° 27' 15.4"). 7:00AM.
Informal-All are invited.

Thursday Morning Breakfast-Michael's Restaurant in the Safeway
Shopping Center, Hwy 69 Prescott Valley. 7:00am. (N 34° 35' 13.3" W
112° 19' 44.6") All are invited.

Location data provided by Fred Zimmermann-N7PJJ, per WSG84 Datum

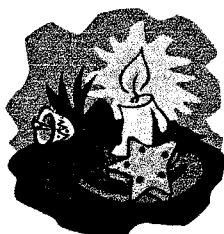
SOME CARTOONS COURTESY OF WORLD RADIO™ MAGAZINE



YAVAPAI AMATEUR RADIO CLUB
PO BOX 11994
PRESCOTT, AZ 86304

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

Many thanks to Bob Smith-WB6ODR, our Webmaster!



SEASONS GREETINGS TO EVERYONE!
MAY YOUR HOLIDAYS BE THE BEST
MAY YOUR STOCKINGS BE FILLED WITH
LOTS OF HAM GOODIES!