



YAVAPAI SIGNAL



The Yavapai Amateur Radio Club • Prescott, Arizona • DM-34 • Volume 21 – No. 8 • August 2006

From the President's Desk



At the July meeting, for the first time, 'horsing around' at a club meeting was enjoyable and desirable! I thank Bob, WB6ODR, for the fine program on miniature horses and for having his wife and neighbor bring in a couple of them. It was a most interesting program.

I am following up on the issues with the 146.88 repeater. At this writing, it looks like the club may have a somewhat different offer being made to it than reported at the July meeting. I should have much more in the way of details to report at the August meeting. I am hopeful that by the time you read this the repeater will back in service.

As I noted last month, and Lloyd pointed out at the July meeting, September and October are going to be demanding and busy months for the club in regards to public service events. We have several

events we need to staff, so I encourage all members who are able to do so to get involved and sign up for one or more of them. As our club grows and our visibility in the local communities increases, we are likely to get more requests in the future for communications assistance. We need to be able accommodate as many of those requests as feasible and possible. Remember, these events are fun and also excellent training for honing our emergency communications abilities.

There is another issue of import that I want you to think about. In November, we'll be electing a new President, Treasurer and three at-large board members. It is not too early to think about serving as an officer or board member, as we'll be forming a nominating committee at the August meeting and will be taking nominations at the September and November meetings. I certainly hope that filling these positions won't be as difficult as in the past. If you have never served as an officer or board member, I urge you to give serious consideration to doing so.

73,
John, WB9VGJ

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. 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 1/2 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 local 146.880- repeater is the official adopted repeater for the YARC. It is located on the hill above Willow Creek road 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. Many thanks to Bill Kafka, W2YAV ■

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YARC Officers for 2006

President

John Broughton, WB9VGJ
wb9vgj@arrl.org

Vice President

Dick Hughes, W6CCD
w6ccd@arrl.net

Secretary

Pat Oliver, K7DUC
joliver@commspeed.net

Treasurer

David Passell, K6UWV
davidrex@northlink.com

YARC Board of Directors (includes Club Officers)

Rex Mauldin – N7NGM

Ken Severance – WA6AQK

Richard Bozeat – KE7DTR

Walter Schumann – KF6SPS

Newsletter Editor: Joe Oliver, AC6AA

Membership Count:

1st Thurs. in June....96

Gain/Loss.....+2

1st Thurs. in July.... 98

Minutes of July 6, 2006 Board Meeting



A Board meeting was held at 1815 on July 6, 2006. Present were John, WB9VGJ; Pat, K7DUC; Dave, K6UWV; Dick, W6CCD; Richard, KE7DTR; Ken, WA6AQK, Rex, N7NGM and Walter, KF6SPS.

We may have 4 or 5 people that wish to have a Technician license class. One would like a one day class. Jack, W7JLC, will be presenting a one day class during the second week of school.

Dick presented a bill to Dave for \$182.46 for club T-shirts.

John has received e-mail from Mark Hills regarding the 146.880 repeater. Rex has communicated with Steve, Bill,

W2YAV's son. Steve has indicated that his father is ill and wishes the club to sponsor and take over coordination of the machine; eventually, taking over the repeater. We will need to pay \$10.00 per month for electricity, which may include past payments.

It was decided to set up a time with Mark and/or Steve to visit the site and determine the condition and cost of maintaining the equipment. Subsequently, the club can decide if it would be advantageous to sponsor the repeater. Bill's call sign would remain on the repeater. We will need legal representation to finalize any agreement we might wish to make.

The meeting was adjourned at 1845.

Respectfully submitted,

Pat, K7DUC, Secretary

Minutes of July 6, 2006 General Meeting

John, WB9VGJ called the meeting to order at 1900. The Pledge of Allegiance was recited and members introduced themselves.

Visitors: Vi Hughes; Alan Elliot, KD7OEF; Tony Brown, WB6LWI, and Lois Diddams.

New Members: Bill Jackson, W6HDP; and Patti Halgunseth, KD7VBG were voted in by the membership.

Meeting Minutes: A motion to approve the Board minutes of June 1, 2006 was made by Bob, WB7RRQ and seconded by Mary, AB7NK. A motion to approve the General Meeting Minutes was made by Terry, KB7TRE and seconded by Jim, N5RO. Both were unanimously approved by the membership.

Treasurer's Report: David, K6UWV reported a balance of \$3361.30.

Committee Reports:

- **ARES/RACES/Public Service:** Lloyd, WA6ZZJ indicated that we were given a plaque by YMCA and the Whiskey Row Marathon Com-

mittee.

There were at least 3 activations of the group for fires during the last month.

Upcoming events will be the Groom Creek run for the Red on Sept. 16, Prescott Air Show, Sept 30, the Prescott Road Rally, Oct. 6 & 7, and the Walk for Diabetes, Oct 21.

Any ARES/RACES member who wishes to drive a County vehicle must take a County Driving Class on Aug. 24, from 9:00 - 11:00, or on Aug. 31, in the Verde 9:00-11:00.

- **IRLP:** Is still being used daily on a low-scale basis.
- **Public Information:** Jim, N5RO reported that boy scouts were participating in Field Day. Some of them are interested in becoming hams. Members of the public participated as well, and showed much interest.

Many articles have appeared in both the Courier and Prescott Valley Tribune.

Hello brochures are now available.

Jim, N5RO was interviewed on Channel 7, discussing ham radio.

Jim will not be able to continue his role as Public Information Officer; Bob, WB7RRQ will be his replacement, with assistance from Jim as needed..

- **Patches/Shirts/Badges:** David, K6UWV has club patches for \$3.00; Dick, W6CCD has club shirts for \$19, without a name, and Bob, WB6ODR has badges for \$5.75.
- **License Class:** Bob, WB6ODR will be giving a General license class starting soon.

John indicated that we may have enough people for a Technician license class. Mary, AB7NK knows of someone interested in teaching the class.

- **VE Testing:** Mary, AB7NK indicated that the date for testing will be changed, due to scheduling conflicts.
- **FM Simplex Contest:** Bob, W7YUL stated that September 10th is the date for the contest.
- **Booth at County Fair- Sept.22-25 :** Doug, KV8TD was unable to attend, and John, WB9VGJ passed around a sign-up sheet for times to work at the Fair.
- **Pre-Field Day at the Mall:** Rex, N7NGM reported that we had more hams than public showing up, due to misdirection from Mall representatives.
- **Elmer/Technical Specialist:** Neil, KA7JAS stated that he took care of one problem.

Old Business:

- **Net control for July:** Richard, KE7DTR will be net control for week 1; David, K6UWV for week 2; Tony, KI6AHH will take weeks 3 & 4.
- **Field Day:** Bob, KC8BOB was thanked for his article in the newsletter. Just under 500 contacts were made and the Field Day was quite successful.
- **Yahoo YARC News Group:** Doug, KB6TWC indicated through John that there was no usage lately. John encouraged members to utilize the newsgroup.

New Business:

- **Club Repeater:** John was contacted regarding the 146.880 machine. Bill, W2YAV would like YARC to take over the sponsorship of this machine, which entails paying the monthly electricity bill, maintaining the machine, and keeping Bill's call sign on the repeater. A couple of members will go to the repeater to check on its condition and then meet with Bill and his son Steve.

Announcements:

- An antenna for two hams, is going to be put up at the Peridot by John Lang.

A motion to adjourn the business portion of the meeting at 1955, was made by Terry, KB7TRE and seconded by Richard, KE7DTR. The motion carried.

The 5050 drawing was held, and Bob, WB6ODR won \$18.50.

The Program for the evening was given by Bob, WB6ODR, on "Miniature Horses".

Respectfully submitted,
Pat, K7DUC
Secretary



YARC Treasurer's Report for July 2006

By David Passell, K6UWV Treasurer

INCOME

New Members (see applications for additional information)

Patti Halgunseth	KD7VBG	07//07	07/06/06	2468	20.00
William Jackson	W6HDP	07/07	07/06/06	1043	20.00

Renewals (Update Roster)

Erika Schiltneck	KI7JZ	08//07	07/06/06	cash	20.00
Arnold Watson	KC7FPM	07//07	07/06/06	cash	20.00

ARRL

None

Other

50/50 drawing	37 tickets	07/06/06	cash	37.00
Patti Holgunseth	T-shirt	07/06/06	2469	19.00

Total Income\$136.00

EXPENSES

Dick Hughes	T-shirts	07/06/06	883	182.46
50/50 winner	Bob Smith	07/06/06	884	18.50
David Passell	Ice; drinks	07/06/06	885	14.77
Insty Print	July Newsletters 32524	07/13/06	886	32.72
ARRL	Postage for Hello (- 5.00)*	07/13/06	887	37.15
Jim Clark, N5RO	*Postage prev. sent to ARRL	07/13/06	888	5.00

Total Expenses\$290.60

Cash Flow (Income - Expenses)..... (-\$154.60)

Deposits 06/06/06 \$136.00

Total Deposits.....\$136.00

PREVIOUS REPORTED CHECKBOOK BALANCE \$3361.30

CURRENT CHECKBOOK BALANCE.....\$3206.70



HP Deskjet 520 Printer

\$50.00 o.b.o.

- Original box
- Manuals
- Software (on floppy and CD)
- Spare new ink cartridge
- Works perfectly

John, WB9VGJ

775-2259

wb9vgj@arrl.net



By Lloyd WA6ZZJ

Yavapai County ARES/RACES has a new look. Our logo has been redesigned and many of our members have purchased a shirt, cap combination that will make us more identifiable when we are activated for emergency communications.

What is Yavapai County ARES/RACES and what do we do?

ARES, short for Amateur Radio Emergency Service and RACES, short for Radio Amateur Civil Emergency Service, consists of a group of amateur radio operators, who have registered their stations and agree to participate in training and providing emergency or alternate communications, when conventional communications are not working or become inadequate.

We also use as training, providing communications for public service events such as the Whiskey Row Marathon, Americas Walk for Diabetes, Prescott Road Rally and others. Yavapai County ARES/RACES works directly with the Yavapai County Office of emergency Management and coordinates closely with cities, towns and emergency organizations in the county.

What are the requirements to be a part of ARES/RACES?

To belong to ARES/RACES one must complete a registration form. This registers you as a person and gives the local Emergency Coordinator an idea of your equipment capabilities, your license class and other useful training and or resources which may be helpful in an emergency. This enables us to make appropriate assignments in an emergency event or even for training purposes. You should also have a willingness to make your station or equipment available to provide emergency communications for major events. These events may include but not be limited to: fires, floods, severe weather and other public events where fire police or emergency medical communications might be inadequate.

How can I help ARES/RACES and how can I be of use in providing Emergency Communications?

First it is very important, especially for new members, to participate in training. Without training there is confusion and disorganization. If we all start on the same page, with the same information, we can better and more effectively communicate the information our served agencies request. By becoming involved in training you add to your value as a communicator in our organization. Learning the art of message handling, net control duties, how to set up an emergency communications station, antenna skills, etc. will increase your value to our team.

Second, even though some of our operation is conducted from established equipment locations such as EOC'S, Red Cross, etc., is the availability of basic portable equipment such as portable antennas, power back up (like gel cell or alkaline battery packs), mobile or portable radios capable of more than a few watts and a good 'go kit' (well stocked with pencils, paper and other personal items).

Third is the motivation to serve the public good, and be ready to deploy if called.

When something happens how do I know where to report and what should I do?

As in many emergencies, a good way to find out if ARES/RACES is active is to **LISTEN** on our primary repeater frequencies. The frequencies are the 145.290 MHz (Mingus Mt.) and 147.260 MHz (Mt Union) repeaters. If for some reason these repeaters are not operational, tune to the 146,880 MHz Prescott repeater or 147.420 MHz simplex. A net will likely be in progress or soon to start if the event is just getting underway. If you are able to be deployed or assist in the event, first have your things together and be ready to go before getting on the net. Radios, antennas, masts, power sources, go bag, etc.. Make sure your vehicle is ready to go or that you have lined up transportation. When you check in, let the resource net control know your call sign, what your capabilities are, transportation limitations and the duration you are available. An example would be as follows: W7ABC is the resource net control and the person clearly in control of the net and the frequency. **Listen first for details!** The net control will ask for stations that are available to check in, as he has assignments that need to be filled or to compile a list of available operators. Your check in would go something like this:

2006 Williams Hamfest

By Lloyd, WA6ZZJ

While attending the Williams Hamfest on Saturday this year I did notice there seemed to be fewer vendors, especially in the large Hall. The outside swap area may have had about the same number as last year. It is hard to remember that from year to year, but in the large Hall it was quite obvious. The parking area had been graveled so it wasn't quite as dusty.

I understand from people that were there on Friday it did rain quite a bit and it seems last year was a wet Friday also. The weather on Saturday was nice until about mid-afternoon and I hear some rain showers moved in. When I left the area at about 2:00 p.m. it was looking dark, raining in Flagstaff, and getting closer to Williams at that time.

While attending the Arizona ARES seminar and then the repeater owners meeting, attendance also was down this year in the repeater owners meeting. They were both interesting and informative however.

One of the things I enjoy at this Hamfest is seeing some of the amateur operators I only get to see once a year and get to visit with. This year I was able to put a face to two call signs I had talked and worked with in emergency communications, but had not met face to face. ■



Photo By Joe AC6AA

Picture from Friday. Lots of tarps covering ham gear.

• ARES/RACES (Continued from Page 4)

(You) W7ABC this is KC7RRR.

(NCS) Go ahead KC7RRR.

(You) This is KC7RRR, I am in Prescott and I have 50 watts on VHF and 35 Watts on UHF. I currently have a vehicle with a full tank of gas and I am ready to be deployed. I will only be available until midnight, as I do have to work tomorrow.

If net control doesn't have a current assignment, **do not just proceed to a location** where you think you may be needed! We have specific protocols that dictate how many operators we have at each location. This is usually, not more than two. We as an organization need to exemplify the highest level of professionalism. Agencies that we serve want the highest level of service and we do our best to accommodate them. We, as Yavapai County ARES/RACES are making a commitment to the people of Yavapai County to be a well trained, well equipped emergency communications organization.

Public Service.....

Upcoming Public Service Events are:

Saturday, September 16th, Groom Creek Run for the Red.

Saturday, September 30th, Prescott Air Show.

Friday and Saturday, October 6th & 7th, Prescott Road Rally.

Saturday, October 21st, Americas Walk for Diabetes.

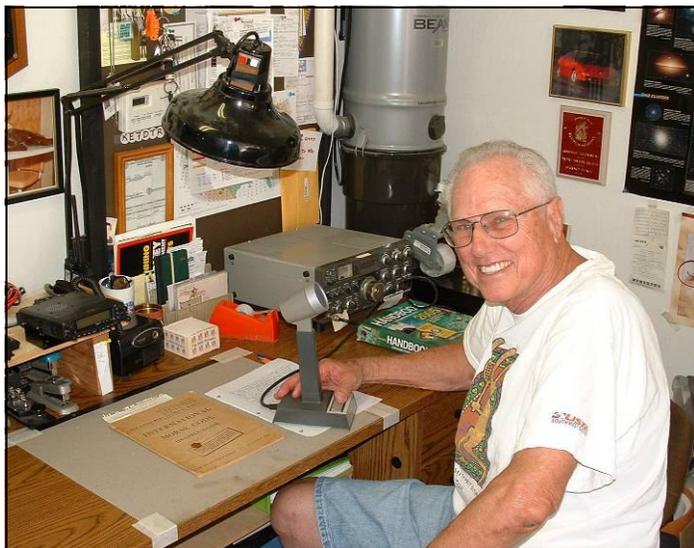
Put these dates on your calendar and be prepared to sign up when the call goes out. Along with getting amateur radio and the club in the public eye, these events also provide good training for emergency communications. ■

"While theoretically and technically television may be feasible, commercially and financially I consider it to be an impossibility" Lee DeForest, American inventor of the vacuum tube (1873-1961).

"I think there is a world market for about five computers" Thomas J. Watson, Senior, Chairman of the Board at IBM, 1943.

This Month's Featured Ham

By Pat, K7DUC



Richard Bozeat, KE7DTR

August's featured ham is Richard Bozeat, KE7DTR.

Richard got his first license in May of last year. He took and passed the Morse code test on the evening prior to the Tech exam. He went on to get his General Class license later that year.

Richard operates on 2 meters and 70 centimeters at this point, doing IRLP quite frequently. He has yet to get on HF because of difficulty getting an antenna up. Between installing a ground rod in the rock base and the CC&R's, he has had a problem. However, it looks like the problem is getting closer to a solution. He also would very much like to give CW a whirl.

His most memorable contact was through IRLP, when he worked the U.S.S. Missouri located in Pearl Harbor, Hawaii, on the 60th anniversary of the signing of the Japanese surrender on the Missouri in Tokyo Bay. From this contact, he received his most memorable mail, a QSL card from KH6BB, which is the call sign of the Battleship Missouri's Amateur Radio Club.

Other IRLP contacts Richard has enjoyed working, are located in Hawaii, Australia, Ireland, and Italy.

Richard built his first antenna from directions in the Technician textbook. First located in his attic, it now is in his ham shack. He has installed another 2M/70cm. antenna in his attic.

His ham radio related activities include both serving as a board member in YARC and as a member of ARES/RACES.

His present equipment includes a Yaesu 8800 that he uses at his station and for mobile operation. When not in use, his mobile antenna folds down into the trunk of his car. He also has a Yaesu VX150, a Ten Tec Corsair, and a Kenwood TS-930S.

Richard feels that the club is progressing quite a bit and has good attendance.

In Richard's professional life, he worked as a technician for Westinghouse in Bloomfield, New Jersey, working on the Magnetron for Distant Early Warning. He also worked on the first Krypton lamps for use on airport runways. He later became an electrical contractor and inspector.

He has officiated at over 5,500 tennis matches, both professional and amateur celebrity. He has chaired matches for such notables as McEnroe, Connors, Nastase, Agassi, Sampras, Evert, Navratilova, and Graf.

Richard is a very active person, with ham radio, tennis, and hospital volunteer work.

We are fortunate to have him in the YARC. ■

YARC Elmers



The Yavapai Amateur Radio Club is blessed with a lot of talented members who are willing to provide technical assistance to others.

Neil, KA7JAS maintains a list of these members and their particular area of expertise.

If you have questions or need a hand....

Contact **Neil Vince, KA7JAS** at:

(928) 775-2158 or ka7jas@arrl.net

Plan to Join the ARRL or Renew Your Membership ?

Ask our Treasurer for a special ARRL Club Membership Application or download the appropriate application from the YARC Website. Complete the Application and return it to the Treasurer with the application fee.

There is no extra cost to you, and our club gets to retain a portion of the dues.

What is "Zulu" Time?

By Joe, AC6AA

The world is divided into basically 24 time zones. For easy reference in communications, a letter of the alphabet has been assigned to each time zone. The "clock" at Greenwich, England is used as the standard clock for international reference of time in communications, military, aviation, maritime and other activities that cross time zones. The letter designator for this clock is Z.

Times written in military time (24 hour format) are four digits, such as, 1830Z (6:30 pm) with the Zulu suffix. Note that the phonetic alphabet is used for the letter Z (Zulu). This time is usually referred to as Zulu Time because of the letter assigned to this time zone. Its official name is *Coordinated Universal Time or UTC*. This time zone had previously been called Greenwich Mean Time (GMT) but was replaced with UTC in 1972 as the official world time standard changed. While GMT is based on Earth's rotation and celestial measurements, *UTC is based on cesium-beam atomic clocks*. The two clocks are rarely more than a second apart as leap seconds are applied to UTC.

United States Time Zones

The Military, as well as civil aviation, uses the letter "Z" (phonetically "Zulu") to refer to the time at the prime meridian. The U.S. time zones are Eastern ["R", "Romeo"]; Central ["S", "Sierra"]; Mountain ["T", "Tango"]; Pacific ["U", "Uniform"]; Alaska ["V", "Victor"], and Hawaii ["W", "Whiskey"]. The Department of the Navy serves as the country's official timekeeper, with the Master Clock facility at the U.S. Naval Observatory, Washington, D.C.

Basis for Time Zones

Our natural concept of time is linked to the rotation of the earth and we define the length of the day as the 24 hours it takes the earth to spin once on its axis.

As time pieces became more accurate and communication became global, there needed to be a point from which all other world times were based. Since Great Britain was the world's foremost maritime power when the concept of latitude and longitude came to be, the starting point for designating longitude was the "prime meridian" which is zero degrees and runs through the Royal Greenwich Observa-

tory, in Greenwich, England, southeast of central London. As a result, when the concept of time zones was introduced, the "starting" point for calculating the different time zones was/is at the Royal Greenwich Observatory. When it is noon at the observatory, it is five hours earlier (under Standard Time) in Washington, D.C.; six hours earlier in Chicago; seven hours earlier in Arizona; and, eight hours earlier in Los Angeles.

It Pays to Understand Zulu Time

On March 27, 1964, a magnitude 8 earthquake struck southern Alaska. This earthquake also generated a tsunami which reverberated around the Pacific Ocean. The Navy sent tsunami warnings, giving estimated arrival times.

The trouble was, the Navy issued their estimated times in Zulu Time. Officials in Crescent City, California had no idea what "Zulu Time" was. They had no idea when the tsunami would arrive.

The tsunami arrived in Crescent City, on time, and destroyed the city's docks and hurled a pile of debris at a tank farm, causing a massive fire.

12 people were killed in Crescent City and \$7,400,000 of damage (1964 dollars) was done. This was the highest fatality rate and the most damage done outside Alaska.

Daylight Saving Time

The main purpose of Daylight Saving Time (called "Summer Time" in many places in the world) is to make better use of daylight. Clocks are changed during the summer months to move an hour of daylight from the morning to the evening. Countries have different change dates.

For the U.S. and its territories, Daylight Saving Time is NOT observed in Hawaii, American Samoa, Guam, Puerto Rico, the Virgin Islands, and Arizona (except for the Navajo reservation). The Navajo Nation participates in the Daylight Saving Time policy, even in Arizona, due to its large size and location in three states.

Learn the history of daylight saving, from Benjamin Franklin to the present...refer to:

<http://webexhibits.org/daylightsaving/> ■

Newcomer's Guide to Amateur Radio Equipment

*Reprinted with Permission from
Vince Yakamavich, AA4MY.*

I recently overheard two fairly new-to-the-hobby Amateurs discussing (bemoaning) the high cost of Amateur Radio gear, specifically HF transceivers. They were discussing top brands, and top-of-the-line models. (Sorta like two teenagers with newly-earned learner's permits, bemoaning the prohibitive costs surrounding Porsche 924's...) "You really can't get much for under \$1,000," said they. "Horsefeathers!" sez I.

Many new Amateurs mistakenly assume that they have no choice but to begin with a tired old used QRP CW transceiver, a wire dipole antenna, and perhaps a used handheld rig for VHF/UHF. This may be the case if you're simply flat broke and have no way to raise cash for a decent station, but there are many possibilities if you allow your creativity, determination, and logic to prevail. And you won't have to "homebrew" your entire station (unless you want to)!

Over the past 10 years, there has been a virtual explosion in electronic technology. The technology of "yesterday" (tubes, and linear VFO's) has been replaced with ultra-sophisticated, computerized, marvels of engineering and packaging technology (for which, we pay most dearly). But let's look seriously at some of those "antiques" of the late 70's and early 80's (which are now in the \$400 - \$800 range). Did they work? Most assuredly. How well did they work? Many a DXCC and 5 band WAS were earned, with untold millions of hours of enjoyment, to boot!

Unfortunately, newcomers won't find ads for the "antiques" in today's Amateur Radio mags. All they see are the ads for the new, (multi) kilo-buck transceivers from Japan Inc.

After reading some of the spec sheets on the new rigs, a newcomer to the hobby will probably think I'm off my rocker when I say most of the "features" found on the new HF rigs in the kilo-buck range are USELESS!

Just for an example, let's talk about "digital VFO's" and "memories". A "digital VFO" is in actuality, a frequency synthesizer. Synthesizers are characterized by extreme frequency stability (a very desirable trait), on the order of 20 Hz or less per hour (based on thermal changes in the crystal time base). But let's look at some of those "antiques". They, too, can boast of frequency stability. Like 100 Hz or so per hour. "But," you say, "that's FIVE TIMES WORSE than what a new rig can do!" And you're absolutely correct. But the key question is: "Will you notice 100 Hz per hour drift?" Using a tight CW filter, yes, you would--after perhaps a FULL HOUR QSO. On SSB, you'd probably want to touch the frequency knob after about 2 HOURS of rag-chewing! Yes, those older rigs sure made Amateur Radio operating rough...

"But the new rig offers 100 "memories", while some of the "antiques" don't even offer a digital display!" Yup, you're right again! But remember, unlike the VHF/UHF FM spectrum, HF is not "channelized". HF stations will be scattered randomly on the band--NEVER will you find them exactly where you programmed your memory for yesterday!. Net operation?? "Plus or Minus QRM" is often heard on many an HF net preamble. Your HF "memory" will NEVER get you exactly on the frequency of your favorite net. You'll always be tuning up and down the band anyway. Unless you plan to make heavy use of autostart RTTY, HF packet, or AMTOR, I doubt you'll ever need a memory on HF.

Keyboard entry of frequency? Perhaps good to get you in the desired band segment, but not much more.

Digital display? Impressive to look at, and perhaps nice to have. But crystal calibrators (about \$20 to build, if your "antique" doesn't already have one built in) and mechanical displays have been the frequency reference for years--and yes, the new rigs' high-tech synthesizers have to be calibrated against WWV, just like the \$20 calibrator...

Solid state finals versus tubes. No doubt about it, tubes are getting more difficult to find. But they CAN be found. "Tubes are expensive!" Yes they are--but YOU can replace them. Ever try to get 4 matched RF type transistors? Ever changed a set mounted in a heat-sink buried within the bowels of a tightly packed maze where even Japanese-sized fingers fear to go? More likely than not, the average Amateur wouldn't even ATTEMPT to replace the finals in a solid state rig (IF he could find a matched replacement set!), while changing a tube presents little, if any, problem. Tubes have other advantages, too. They're infinitely more forgiving when it comes to that "ideal" 50 ohm resistive match we Amateurs are always seeking, but seldom attain. At 2:1 SWR, a tube will work just fine--a newer rig will probably go into a limited "foldback" to protect the transistors. Three to one?? Tubes are still perkin' along --- Transistor? Forget it!

One disadvantage though: You will have to learn to peak the grid, and dip the plate. Hand-eye coordination. Watch the meter--twist the knob. Yup, those "Amateurs of olden days" sure had it rough...

Speech compressor? Some DXers swear by 'em. Most rag-chewers swear AT 'em! If you need one, they exist as after-market devices for the older rigs, not to mention the "build your own" method.

Suffice to say, a lot of the features on the newer rigs amount to high priced, useless frills.

What newcomers in quest of a good HF rig REALLY need to do is seek out an EXPERIENCED Amateur who has knowledge about the older rigs. Ask what kind of rig they use. Ask what they like or dislike about it. Most Amateurs are delighted to show off their shack, and give you hands-on exposure to their setups.

I'd recommend any of the following, as they were the "standard of performance" in that "classic" age of 10 or more years ago. Most can be found in ham-fests or in trader publications for around \$200 - \$600. Collins KWM-2A, Drake TR4-C, & TR-7 transceivers; Collins S Line, Drake T4C, R4C (separate Receiver & transmitter). Again, these were the "Cadillacs" of 10 or so years ago. Solid, proven performers, and parts still readily available.

Be cautious though--not all the rigs in this era were gems. Although some of their rigs were winners, manufacturers such as SWAN, National, EICO, et al., have had models that left a sour taste in the Amateur community. Until you're more knowledgeable about the ins and outs of specific models, stick to the "Cadillacs" like Collins & Drake.

Got a little more to spend? Icom 745 (my current HF rig), Kenwood TS-830, TS-430. \$600 - \$800 range. SOLID performers (even if they ARE transistorized!).

Just for fun, let me play devil's advocate. Lets assume that you, Joe New Ham, just HAS to have that kilo-buck+ special. It's a steep price to pay, no argument. But the thing you have to keep in mind is that the cost of this hobby is mostly "up-front money." In the long run, Amateur Radio is NOT that expensive when you look at dollar cost versus hours of enjoyment.

Let's compare it to some other hobbies: Bowling-- pretty inexpensive, eh? After you buy your equipment

(about \$75 or so), you can look forward to dropping an additional \$10 or so every time you visit the lanes for a couple hours of fun. A couple times a week, over the course of a SINGLE YEAR, you've already paid MORE than that new transceiver costs! Do you enjoy going to the movies? Add this up: \$5-\$6 admission, \$2-\$5 for refreshments, that's \$7-\$11 per film, and if you go just once a week it works out to \$350-\$550 per year...add a date and double it...about an hour and a half of entertainment each week for perhaps \$1,000! And don't forget the hassles of parking, waiting in line, etc. What about golf? You pay greens fees, and you're limited to daylight and (for all but the fanatics) fair weather. Not so with HF Amateur Radio. Twenty-four hours a day, rain or shine, you can sit down and enjoy your INVESTMENT, making new friends, learning about faraway places, and perhaps helping others in life-threatening situations.

Compare your Amateur Radio hobby. Say you spend even \$5,000 on a transceiver, antenna, tower, tuner, power supply, coaxial cables, rotator, and miscellaneous accessories for the shack. Let's say the setup lasts five years (conservatively) before you want to make any major changes. Five grand works out to \$1,000 a year, or \$20 a week for unlimited hours of operating and providing a valued public service. Even if you add more extras, like a good keyer, handheld VHF radios, club dues, magazine subscriptions, reference books, tools, license upgrade preparation tapes, packet TNCs, backup power generators, mobile gear, and a cheap computer, it's still a fairly inexpensive hobby over the long haul. Not to mention the fact that you'll probably recoup 30-50% (or more) of your investment if you decide to sell your equipment used at a later date. So, for a net outlay equivalent to maybe \$10-\$25 a week, you can be a "complete Amateur."

If you're still doubtful about the hobby, seek out an experienced Amateur to consult and/or go shopping with, and go for one of the "classics"

of recent time. Get on the air. It won't take you long to become hooked on HF operating. It's day and night compared to VHF repeater operation. Besides, you'll always be able to sell it at a ham-fest if you ever lose interest. But if you're convinced that Amateur Radio is for YOU, then go ahead and look at those kilo-buck+ specials, visit your friendly Credit Union if necessary, and GO FOR IT! ■

73 de Vince Yakamavich, AA4MY

YARC FM SIMPLEX CONTEST

Purpose: To encourage all licensed radio amateurs to learn the basics of contesting and simplex operations, and to expand the scope of their VHF-UHF operating techniques beyond that needed for repeater operation.

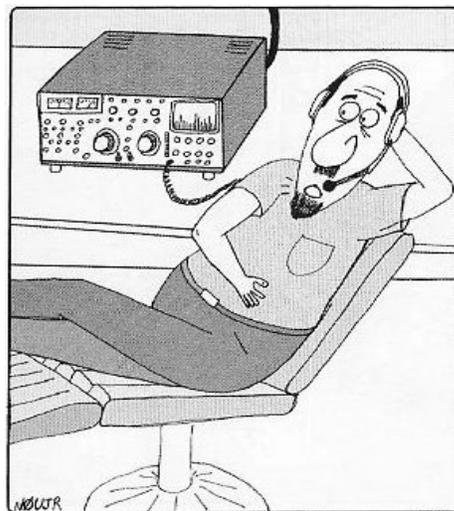
When: September 10, 2006

Time: 2:00 - 4:00 p.m. MST

For an Entry Form and additional information, refer to YARC website:

http://www.w7yrc.org/simplex_contest.htm

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Yea, I just bought one of those new "smart" HF rigs. It almost anticipates your settings. Only thing is, when I forget myself and use rough language, the darn thing retunes itself to 11 meters.

CQ DX de YARC – AUGUST 2006

By Dick Diddams, W7QHE

DATE		DXCC ENTITY	CALL	QSL VIA	REPORTED BY	INFORMATION	- - - MONTHLY HIGHLIGHTS - - -
START	END						
Now	06Aug	Turks & Caicos	VP5HR	Home Call	OPDX 20060717	By N0VD WB9JTK as VP5/homecall; mainly CW	<p style="text-align: center; color: cyan;">MONTENEGRO - 4O3NT</p> <p>The United Nations admitted the Republic of Montenegro as its 192nd member on June 28, and that action automatically makes the tiny Balkan nation the 336th current DXCC entity. The size of Montenegro is 14,026 sq km (slightly smaller than Connecticut) with a population of 630,548.</p> <p>The International DX Festival Montenegro, has been set for July 20 until August 12. That's when several international operators will join forces with Montenegrin Amateur Radio operators using a common call sign in an effort to meet the DX community's need to work the newest DXCC Entity. Festival organizers have set the ambitious goal of 200,000 contacts for the event, which will use all HF bands.</p> <p>The use of the name Montenegro began in the 15th century when the Crnojevic dynasty began to rule the Serbian principality of Zeta; over subsequent centuries it was able to maintain its independence from the Ottoman Empire. From the 16th to 19th centuries, Montenegro became a theocratic state ruled by a series of bishop princes; in 1852, it was transformed into a secular principality.</p> <p>After World War I, Montenegro was part of the Kingdom of Yugoslavia, and, at the conclusion of World War II, it became a constituent republic of the Socialist Federal Republic of Yugoslavia. When the latter dissolved in 1992, Montenegro federated with Serbia, first as the Federal Republic of Yugoslavia and, after 2003, in a looser union of Serbia and Montenegro. Following a three-year postponement, Montenegro held an independence referendum in the spring of 2006 under rules set by the EU severing ties with Serbia exceeded the 55% threshold.</p> <p style="text-align: center; color: green;">MONTENEGRO PREFIXES</p> <p>Daily DX reports that the following prefixes are currently being used: 4N3, 4N6, 4O3, 4O6, YT3, YT6, YU3, YU6, YZ3 and YZ6. Contacts with these prefixes made on/after June 28, 2006 will be accepted for DXCC credit. Montenegro has applied to ITU for a prefix block, but as yet it has not been assigned</p>
Now	10 Aug	Samoa	5W0	5W0/ K8AQM	K8AQM 20060107	Focus on 16 0-30 + 17m; CW SSB digital	
Now	13 Aug	Montenegro	4O3NT	YT6A	YT6A 20060717	160-6m; CW SSB RTTY; new DXCC entity	
Now	14 Aug	Timor Leste	4W6AAB	PA7FM	425DXN 20060708	By PA5M; spare time operation	
Now	25 Nov	Haiti	HH	PS7EB	PY2HS 20060405	All HF bands; CW SSB + digital; multiband vertical	
03Aug	08Aug	Bermuda	VP9	K3TRM	K3TRM 20060710	By K3TRM as VP9/K3TRM; 160-6m; SSB RTTY CW	
03Aug	15Aug	Corsica	TK	IZ1DSH Buro	IZ1DSH 20060520	By IZ1DSH as TK/IZ1DSH fm Porto Vecchio; 40 20m; SSB	
05Aug	17Aug	Rotuma	3D2BD	F4ELJ	425DXN 20060506	By F4ELJ F0ELK F0ELI fm OC-060	
11Aug	16Aug	Macao	XX9TJS	JM1LJS	F5NQL 20060708	By JM1LJS	
12Aug	14Aug	Svalbard	JW	Home Call	425DXN 20060617	By IN3TCH IN3SAU as JW/homecall fm EU-026	
18Aug	21Aug	Fiji	3D2	F4ELJ	425DXN 20060506	By F4ELJ F0ELK F0ELI fm Suva (OC-016)	
19Aug	01Sep	Corsica	TK	IK1RAC	OPDX 20060717	By IK1RAC as TK/IK1RAC; HF + 6m; QRP	
21Aug	23Aug	Faroe Islands	OY	DARC Buro	DL2RMC 20060715	By DL2RMC DO3MSH as OY/homecall; HF; CW SSB	
24Aug	06Sep	Iceland	TF	DARC Buro	DL2RMC 20060715	By DL2RMC DO3MSH as TF/homecall; HF; CW SSB digital; 400w;	
26Aug	01Sep	Jersey	GJ5XW/ p	G5XW	OPDX 20060710	By G5XW fm EU-013; HF; SSB	

THE FOLLOWING COMES FROM YT6A (19 JULY 2006):

"Several vehicles have left various European locations, such as Bulgaria, Poland, Germany and Holland bringing radio equipment and additional antennas to an already impressive multi-multi site on the Adriatic coast, the latest addition - the Republic of Montenegro - to the DXCC List.

Operations will commence July 20 and will run until August 13, 2006. The call sign will be 4O3NT.

The 4O3NT operation will launch Yaesu's new FT2000 transceiver and will also employ several SteppIR beams, courtesy of the Northern California DX Foundation (NCDXF) and SteppIR. 4O3NT QSL via YT6A.

CW - 1826.5, 3522, 7022, 10106, 14022, 18072, 21022, 24892 and 28022 kHz

SSB - 3795, 7055, 14190, 18145, 21290, 24945 and 28490 kHz

RTTY - 7035, 10135, 14085, 18105, 21085 and 28085 kHz

6 Meters - 50106 kHz CW/SSB



Photo courtesy of Martti, OH2BH



One of the operating sites to be used in Montenegro at 4O3NT!

Battery back-up in your shack

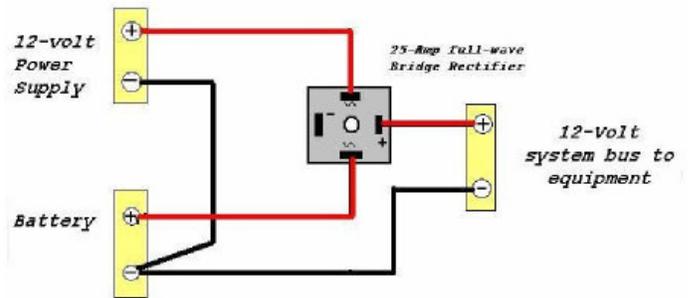
By Bruce Randall, W1ZE

Many of you are volunteers in the local ARES and/or Red Cross group and want to be able to operate your station on storage battery back-up in the event of an emergency and loss of AC from your friendly power company.

You may already have a deep cycle RV lead-acid battery in your shack and are able to connect it to your rig(s) if the power goes out. You may even have a large switch to switch from your 12-volt power supply to a battery. That works but when the power fails, the processor in your rig may need to be rebooted, or at a minimum you have to turn your rig back on.

There is a device sold commercially called a Power Bridge that facilitates an uninterrupted flow of electrons to your radios and other equipment in the shack running off your 12 volt power bus. The KS1R repeaters use such a device to provide uninterrupted power from the big battery bank if we lose power and 12 volts from the 25-Amp Astron power supply. The bridge was put together by the Tech Committee with a few parts from K1MNW "Bill on the Hill" Messier's stash of goodies.

The heart of the power bridge is two high current silicon diodes that are capable of handling 20 amps or more. Most of us are not blessed with a supply of these higher current diodes and Radio Shack diodes are rated for just a few amps or less.



Fortunately Radio Shack has a full-wave bridge rectifier (RS# 276-1185) capable of handling 25-Amps that could be used and it sells for just a few bucks. This bridge is a small flat block about 1-1/4 inches square with four terminals that encapsulates four high current diodes in the full-wave bridge configuration.

All that is needed for the circuit is the Radio Shack full-wave bridge rectifier (only half the rectifier is used), a small metal enclosure (chassis box) and three + / - terminals blocks. The rectifier block can be mounted in the metal box with a 6-32 screw and nut. The aluminum enclosure protects the internal circuit and acts as a heat sink for the rectifier block. Use #12 stranded or larger wire to handle 25 amps. If your shack's 12-volt system needs more than 25 amps, use two bridge rectifier blocks wired in parallel and increase the wire size to handle the current. If you have an old aluminum heat sink in your parts bin, use it to mount your rectifier block(s). ■

Happy soldering, Bruce, W1ZE



Photos by Ken, WA6AQK

Bob and Linda Smith show off their miniature horses during an unusual, but entertaining YARC Program.

Weekly Breakfasts



Tues. & Thurs. Morning Breakfast – 7:00 a.m. at Michael's Restaurant

(In the Safeway Shopping Ctr., Hwy 69 Prescott Valley)
(N 34°35'13.33" W112°19'44.6")*
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, N7PJJN

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	W2YAV/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	
448.475-	100.0	Flagstaff-Elden	ARA	Yes			
448.500-	100.0	Prescott	KB6TWC	Yes	RB to White Tank 146.940		E-mail owner for instructions
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 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

