



The objectives of the Willits Amateur Radio Society are:

- to promote interest in fellowship and fun in Amateur Radio;
- to further the cooperation between Mendocino County Amateur Radio Operators;
- to provide emergency or public service communications when normal means of communications are disrupted;
- to advance the state of the Amateur Radio art through individual and collective research;
- to conduct programs and activities so as to increase the general interest and welfare of Amateur Radio in the community including classes and testing;
- to support lawful, responsible conduct by its members and the amateur fraternity in general.

WARS OFFICERS for 2008

PRESIDENT: Tim Hanna, WB9NJS
SECRETARY: John Lemmer, W6FQX
TREASURER: Dean Durbin, KE6COB
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WEB PAGE: <http://www.k6mhe.com/wars>
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The Willits Amateur Radio Society meets at 7:00 PM on the **fourth** Monday (not the last Monday) of each month except for December. The normal meeting location is the Brooktrails Fire Station on Birch Street in Brooktrails.

There is a weekly informal breakfast meeting held every Tuesday morning starting at 9 AM at Perko's Restaurant in Willits.

On the coast, there is also a weekly Koffee Klatch starting at 10:30 AM on Tuesdays at the Tradewinds Restaurant in Fort Bragg and an informal breakfast meeting held every Friday starting at 8:15 AM at the Laurel Street Deli near the Skunk Depot in Fort Bragg.

From the prez – August 2008

It's more than just talent....

Recently the world has been treated to a phenomenal display of athletic talent during the Olympic Games in Beijing. Amazing performances yielded gold medals, with new world records set regularly, sometimes several times in a day. While there is no question that these top athletes possess outstanding talent, there is more to their success than talent alone. Untold hours of practice and a relentless drive to achieve excellence were needed to reach such a level of performance.

Although we may not be shooting for world class performances, similar factors come into play when amateur operators step forward in time of need. Some amateurs may seem to have a particular knack for handling communications, but this represents more than natural talent. Those who are skilled and take on the task with ease also have practiced time and time again to refine their skills.

Fortunately, no superhuman athletic talents are needed for hams to become outstanding communicators. All it takes is practice (lots of practice) and a desire to do the job well. I applaud the hams across Mendocino County who have started their training by participating in weekly nets and the occasional event or exercise. A standing ovation goes to those who have sought opportunities and events beyond our county to further develop their skills. More training and a desire to improve (including a willingness to learn from our mistakes) are needed to bring us to a point where we are ready to deliver a gold medal performance when the chips are down. So please don't pass up the next opportunity to build your skills.

Tim – WB9NJS

LAST MEETING

The last meeting included a demonstration of several 2 meter band antennas made from ordinary (but seldom seen these days) television twin lead. In addition to the usual free hanging antennas, one was shown enclosed in a length of ordinary $\frac{3}{4}$ inch schedule 40 sprinkler pipe which could be stood in a corner, stuck into the ground, or clamped to a building or mast. Cut lengths of twin lead were made available for anyone wishing to make their own. For one more look at the dimension for building a twin lead J-pole antenna, go to http://www.emcomm.org/antenna/vhf_jpole.htm

A comparison table of various types of 2 meter antennas was shown. Using typical HT power of 5W the following Effective Radiated Power figures were presented. The pattern comments are an attempt to illustrate the three dimensional look of the antenna pattern where the gain number is proportional (roughly) to the dimension of the pattern (in a logarithmic sense) in the horizontal direction.

Isotropic (theoretical equal radiation in all directions) (0 dBi) 5 W

Pattern looks like a sphere – or maybe a doughnut hole

Dipole or J-Pole (+2.14 dBi) 8.18 W

Pattern looks like a fat doughnut – maximum gain is horizontal

1/4 wave antenna above a ground plane (-0.9 dBi) 4.1 W

Pattern looks like 1/2 a fat doughnut with max gain above horizontal

Short Flexible Duck (4 1/2 inches) (-7 dBi) - 1 W

Pattern looks like 1/2 a small doughnut, max gain above horizontal

5/8 wave antenna above a ground plane (+2.14 dBi) 8.18 W

Pattern looks like a 1/4 wave antenna above a ground plane but larger diameter

2 by 7/8 wave (Diamond F22) (6.7 dBi) 23.4 W

Pattern looks like a slim doughnut, much larger than dipole

3 by 5/8 wave (Diamond F23) (7.8 dBi) 30 W

Pattern looks like a slimmer doughnut, still larger than dipole.

Some comparisons of several types of coaxial cables were shown by tabulating their loss at 2m. A summary of some of these cables is given below with the loss in dB for each length.

	<u>25'</u>	<u>100'</u>
RG-174	2.6	10.4
RG-58	1.4	5.6
RG-213	0.6	2.4
LMR400	0.4	1.6

What is important to remember is that 3 dB of cable loss results in transmission of half the transmitter power and 6 dB of cable loss results in the transmission of one quarter the transmitter power. 10 dB loss correspondingly results in the transmission of only 10% of the transmitter power while 20 dB loss results in the transmission of only 1% of the transmitter power. The rest is lost in heating the cable. When receiving, in the usual HF receiver, 6 dB corresponds to 1 S unit. VHF receivers are not usually so calibrated and an S unit bar may represent anywhere from 3 to 10 dB.

NEXT MEETING

The next meeting of the Willits Amateur Radio Society on Monday, August 25, will find a trio of emergency preparedness tips being presented.

Annie Robinson W6ANI will explain and show several grab-and-go kits that would be useful if you had to evacuate your home on short notice.

Anne Dent KI6ISI will use her knowledge as a Registered Nurse to explain how to care for medical conditions (such as diabetes, etc.) in an emergency.

Marcella Chandler KI6MJC will talk about ham radio grab-and-go kits for responding to an emergency or disaster.

Alan Spivak WA6JBK will be bringing 5 all copper 2 meter J-pole antennas for donation to needing amateurs. Contributions to defer the cost of materials will be accepted but in not actually necessary.

TEST SESSIONS

Below are listed the known test sessions in the next few months within 100 miles of Willits:

The Sonoma Mountain Repeater Society is presenting Technician level classes on the schedule presented below. Go to www.smrs.us for more information.

SEP 7	SARS	1:00 PM	CLASS SEP 6 - 8:30 AM TO 4:30 PM Napa CLASS SEP 7 - 8:30 AM - 1:00 PM
SEP 13	SMRS	1:00 PM	CLASS 8:30AM - 1:30PM <u>Petaluma</u>
OCT 11	<u>SMRS</u>	1:30 PM	CLASS 8:30AM - 1:30PM <u>Petaluma</u>
NOV 9	SARS	1:00 PM	CLASS MAY 10 - 8:30 AM TO 4:30 PM Napa CLASS MAY 11 - 8:30 AM - 1:00 PM
NOV 15	HWA	1:00 PM	Class 9:00 AM Hamilton Field
NOV 22	VOMARC	9:00 AM	Sonoma Developmental Center

Other testing sessions obtained from the ARRL web site are as follows:

13-Sep-2008

Sponsor: YUBA SUTTER ARC

Time: 9:00 AM (Walk-ins allowed)

Contact: CLARA M ANSLEY

(530)742-2674

Email: EOAN6VRH@NETEZE.COM

VEC: ARRL/VEC

Location: CORNERSTONE EVANGELICAL CHURCH

715 KING AVENUE

WALKINS ACCEPTED BET 9-10AM

YUBA CITY, CA 95991

27-Sep-2008

Sponsor: HUMBOLDT ARC

Time: 10:00AM (Walk-ins allowed)

Contact: IRMA D RUEGG

(707)826-0767

Email: JRUEGG3.1@JUNO.COM

VEC: [ARRL/VEC](#)

Location: REDWOOD COAST AMATEUR RADIO CONVENTION
FERNDALE FAIRGROUNDS HAMFEST
FERNDALE, CA 95536

01-Nov-2008

Sponsor: YUBA SUTTER ARC

Time: 9:00 AM (Walk-ins allowed)

Contact: CLARA M ANSLEY

(530)742-2674

Email: EOAN6VRH@NETEZE.COM

VEC: [ARRL/VEC](#)

Location: CORNERSTONE EVANGELICAL CHURCH
715 KING AVENUE
WALKINS ACCEPTED BET 9-10AM
YUBA CITY, CA 95991

NETS

A number of communities have been holding a weekly local net. Here is what is known at this time:

Albion	Monday	3:00 PM	147.570 Simplex
Brooktrails	Wednesday	7:15 PM	146.580 Simplex
Gualala/Point Arena	Tuesday	7:00 PM	147.825/146.610 Linked
Hopland	Wednesday	7:15 PM	147.510 Simplex
Piercy/S. Humboldt Co.	Monday	7:00 PM	146.790/146.940 Linked
Redwood Valley/Ukiah	Wednesday	6:00 PM	146.490 Simplex
Willits	Wednesday	7:00 PM	146.460 Simplex

All stations within the range of the net control station are invited to check in either as a resident or as a visitor. Net control duties usually rotate among the regular participants. The use of simplex frequencies for local operations is being emphasized in order to reserve the repeater facilities for wider area communications in the event of a major disaster.

To facilitate hearing the desired stations and rejecting other stations out of the area on the same frequency, all stations are requested to transmit a tone of 103.5 Hz in the same manner as would be used to access a repeater. You may set your receiver for tone squelch (also known as CTSSS squelch) at your option.

There is also a county-wide net at 7:30 PM on Wednesdays using the linked facilities of the 147.390 repeater on Laughlin Ridge, the 145.430 repeater on Cahto Peak near Laytonville, and the 145.470 repeater on Sanel Mountain near Hopland. The initial roll call for this net is for the net control operators of the various communities although there is usually an open call following the initial roll call. Net control duties for this net are rotated between the various communities participating.

Following the county wide repeater net, there is often a county wide simplex net checking on which stations can hear and work other stations. At the present time, this net is being conducted on a somewhat non-standard frequency, 145.555 MHz. Also for this simplex net, stations are requested to transmit a tone of 103.5 Hz. You may set your receiver for tone squelch (also known as CTSSS squelch) at your option.

All of these nets are organized under the auspices of the Mendocino County Amateur Radio Communications Service (McARCS), an association of amateur operators interested in preparing for communications in the aftermath of a disaster. The web site for McARCS can be found at <http://mcarcs.org>.

There is also a Mendocino-Sonoma Emergency net held every Tuesday evening at 7:30 PM on 3925.0 kHz, LSB. If not on the roll call, check in as a visitor when invited.

2008 CALENDER OF EVENTS

Here are some of the interesting events in ham radio for the remainder of this year.

August 30 marks the date for the annual W6OMF Hamfest and swap meet in Vacaville. 0800-1100 with Drawing at 1030 and testing starting at 1100.

Amateur radio ONLY! No computers, No CDs, No furniture and No non-amateur paraphernalia.

The address for this event is the Runt Ranch at 7372 PADDON RD in Vacaville. VACAVILLE CA 95688 www.mapquest.com or your favorite mapping program gets you to the house. Questions? Email w6omf@cwnet.com for answers

Those thinking of coming the night before, there is plenty of parking. 5 flat acres.

September 12-14. These are the dates of the Southwest Division Convention in Mesa Arizona. A long way to go but you might want to attend if you are going that way anyway. <http://www.azhamcom.org/> for information.

September 13-15 These are the dates of the September VHF Contest. The usual location on Walker Ridge has been cleared of brush by the activities of the crews fighting the Walker Fire in late June and early July. Contact WB9NJS for further information.

September 26-27 These are the dates of the annual San Francisco Section Convention in Ferndale <http://www.humboldt-arc.org> for more information. This is usually a fun event although it is a lot smaller than some other conventions.

October 17-19 These are the dates of the annual Pacificon (Pacific Division Convention) in San Ramon, California <http://www.pacificon.org> for more information. There is a lot of information about this event on the web site. Check it out!

BUY, SELL, TRADE, OR GIVE AWAY

This space can be made available for your ham radio related equipment that you wish to transfer ownership to another. Please provide your ad as a Word or compatible format as an attachment to an email to the editor of this newsletter.

Loaner HF Radio. Swan Astro 102BX. This is a ham band only 100W HF transceiver covering the 6 traditional bands (160 through 10m). It has a digital frequency display but it is not actually synthesized. This is definitely not a state-of-the-art transceiver although it has passband tuning (with a display), notch filter, noise blanker, etc.. One Variable Frequency Oscillator has a warmup drift problem but the other one is OK.

I will loan it to any new ham that wants to try it out even for listening only on the HF bands. When you are done with it, make it available for another new ham or give it back. At this time it is without an AC power supply. If you are only going to listen, a 10A supply (like for a VHF radio) will work OK but you will need a 20A or bigger one to actually transmit.

It is big, 14.25" wide by 6.25" high by 13.25" deep and weighs about 23 pounds. I can supply a DC power cord for this rig but the power supply end will be wires only so you will have to fasten an end for your power supply.

If interested, contact John W6FQX and arrange to pick it up.

CONTRIBUTIONS WANTED

If you have written an article relating on any way to ham radio and are looking for a publisher, please submit it to the editor of this newsletter. Just send it as an email attachment in a Word or compatible format. (I can open nearly all modern word processing programs but may have to edit some of them into a Word format.)

If you have run across a published article in another medium that you think should be published here, let me know. We may have to obtain permission to publish it but this is generally not a problem for ham radio related publications.

SINCE TIME BEGAN

Let us use a comparison of one year with the history of the universe since it's beginning.

It is generally agreed by scientists that the universe as we know it began at one instant somewhere between 10 and 20 billion years ago. The most accepted theory is that all the matter and energy in our known universe existed at a single point at this instant and has expanded ever since. Let us assume 15 billion years (15,000,000,000) for the purposes of this comparison.

This date is assumed by observing all the velocities of the various stars and galaxies as they expand away from each other and working backwards in time towards the presumed origin of the expansion. This origin of the universe is sometimes known as the "Big Bang" theory of creation.

Nothing is known about what existed before this instant or how or why this occurred. Many people believe that this creation of the universe is evidence of a supreme being or God. Others think that this is only the latest manifestation of a universe that alternately contracts to a single point and then expands again.

There are other theories that the universe that we see may be only one of multiple universes. We can only see as far as we have instruments for,

One year contains slightly more than 31.5 million seconds. This can be determined by multiplying the number of seconds in a minute (60) by the number of minutes in an hour (60) by the number of hours in a day (24) by the number of days in a year (365). For this comparison, use 31,536,000 seconds in a year.

If we now compare the age of the universe with one year, we can divide 15,000,000,000 by 31,536,000 to find that each second in a year corresponds to approximately 476 years since time began.

On this same scale, each minute then represents about 28,500 years, each hour about 1,700,000 years, and each day slightly over 41 million years.

Let us assume now that the universe was created exactly at the first second of January 1 of our comparison year and that the clock is now about to move past the last second of December 31. Let us look back to see when certain events have occurred in this year.

The solar system with our sun and the beginnings of the planets (including our earth) were formed out of the gases of the expanding universe some time between 4 and 5 billion years ago. On our calendar, this would be about September 7.

The first primitive forms of algae or other simple, one-celled, life forms appeared about 3.5 billion years ago. This would be approximately October 5 on our one year calendar.

The first vertebrate animals appeared about 500 million years ago or about December 19. Land plants, amphibians, reptiles, flying insects, and fish first appeared between 300 and 400 million years ago or between December 20 and 22.

All of the dates pertaining to plant or animal life are determined by the decay rate of naturally occurring radioactive materials found in or with the fossil or other samples. Organic samples from relatively recent specimens contain carbon 12 or carbon 14 in a proportion to their age while fossil (rock) specimens contain other slightly radioactive materials that have decayed at a known rate since their deposition in or with the samples.

The age of dinosaurs began approximately 135 million years ago and ended about 65 million years ago. On our one year calendar, they appeared on about 8 AM of December 28 and disappeared about noon on December 30.

Early pre-human like animals appear in the fossils recorded in mud turned to stone about 4 million years ago. These animals may have been the ancestors of today's humans and apes. On our one year calendar, this occurred at about 10:20 P.M. today, December 31.

Evidence of human type animals appears in the fossil records about 2 million years ago or about 1 hour and 10 minutes ago at 10:58:50 P.M. today, December 31.

Recent evaluation of human remains including residual DNA and other genetic markers indicates that modern humans appeared about 200,000 years ago or about 7 minutes ago at 11:53 PM today.

Evidence of humans just beginning to write occurs approximately 5000 to 6000 years ago or about 11 seconds before midnight tonight.

Looking to more modern history, the age of the Roman Empire and the birth of Jesus occurred at slightly more than 4 seconds ago at 11:59:55.8. Columbus discovered the Americas only 1 second ago and the USA declared its independence from England within the last 4/10 of a second.

Now that you have an understanding of how long our universe has been in existence and how long us humans have been around it, don't you feel important? Do you wonder what the earth will be like in another few million or billion years?

And They Ask Why I Like Retirement !

Question: How many days in a week?

Answer: 6 Saturdays, 1 Sunday

Question: When is a retiree's bedtime?

Answer: Three hours after he falls asleep on the couch.

Question: How many retirees to change a light bulb?

Answer: Only one, but it might take all day.

Question: What's the biggest gripe of retirees?

Answer: There is not enough time to get everything done.

Question: Why don't retirees mind being called Seniors?

Answer: The term comes with a 10% percent discount.

Question: Among retirees what is considered formal attire?

Answer: Tied shoes.

Question: Why do retirees count pennies?

Answer: They are the only ones who have the time.

Question: What is the common term for someone who enjoys work and refuses to retire?

Answer: NUTS!

Question: Why are retirees so slow to clean out the basement, attic or garage?

Answer: As soon as they do, one of their kids will want to store stuff there.

Question: What do retirees call a long lunch?

Answer: Normal.

Question: What is the best way to describe retirement?

Answer: The never ending Coffee Break.

Question: What's the biggest advantage of going back to school as a retiree?

Answer: If you cut classes, no one calls your parents.

Question: Why does a retiree often say he doesn't miss work, but misses the people he used to work with?

Answer: He is too polite to tell the whole truth.

Share this one with all the retirees that you know. I'm sure they can relate to some of them! AND, if you have not yet retired, look what you have to look forward to.