



River City ARCS

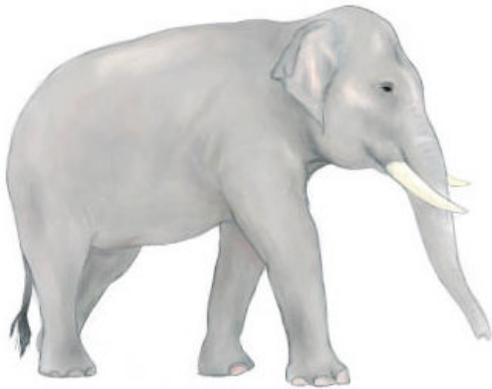
River City Amateur Radio Communications Society



October 2012

<http://www.n6na.org/>

Vol. 32 no. 10



WHITE ELEPHANT SALE

The October meet is the club's annual White Elephant sale. This is our major fund raiser for the year. So bring your old and unused radios, test equipment, parts or ???

October MEETING

The October meeting is on Sep. 4th. at 7:30pm at the Sacramento County Corp. Yard, 5026 Don Julio Blvd (corner of Elkhorn Blvd)

For our October meeting, Bob Hess W1RH has confirmed he will bring a 10-15 minute PowerPoint presentation to encourage participation in the California QSO Party. He also will bring an entertaining 40 minute talk on tall broadcast towers that we may watch if time permits (depending on the number of White Elephant items).

Carol

We now provide a coffee service with our refreshments at River City ARCS monthly meetings.



Happy
Halloween

CLUB INFORMATION

DUES: \$20.00 Per year

ADDRESS: PO Box 233692, Sacramento CA 95823

MEETINGS: Membership meetings are generally held on the first Tuesday of each month, 7:30 P.M., at the Sacramento County Corporation Yard, corner of Don Julio and Elkhorn Blvd.'s.

Board of Directors meetings are held the fourth Tuesday at 7:00 pm. All members are welcome.

Contact a board member for location.

Web Site: www.n6na.org

E-mail: n6na@arrl.net

Contact club through the web page at:

<http://www.n6na.org/about>

N6NA Repeaters

145.250 MHz (-162.2)

442.600 MHz (+100) - Offline

(Due to Pave Paws issue)

2M Club Net - Members and Guests

Check In on 145.250 MHz

Wednesday at 8 PM

10M Club Net - Members and Guests

Check in on 28.420 MHz

following 2M net

SSTV Club net - Members and Guests

Check in on 145.51 MHz FM Simplex

Following 10M net.

<http://www.n6na.org/nets>

OTHER NETS

Noon Time Net is on the W6AK/R at
146.910 (-) 100 PL.

2012 OFFICERS AND COMMITTEES**Board of Directors**

President Dr. Carol Milazzo, KP4MD

Vice President Don Kunkel, KE6GMJ

Secretary Larry Fibich, AF6LF

Treasurer Kevin Laybourn KI6KIU

Membership Need volunteer

Board Members:

2 year Term Robert Hicks, K6VSS

2 year Term Ed Siegner, WA6QYO

2 year Term Bob Wortman, WB6VYH

2 year Term Jason Lager KF6QXX

Appointments:

N6NA Trustee Steven Bird KM6YU

VE Liaison Need volunteer

Training Ed Seigner, WA6QYO

Editor Ken Martin, KE6RMN

Sound

Sales Mary Ann, KE6EST

Field Day Need volunteer

Picnic Chair Need volunteer

**2012 SCHEDULE OF EVENTS**

For 2012 all membership meetings will be held on the 1st Tuesday of each month. Board meetings are on the fourth Tuesday of each month.

Membership meeting	Oct. 2
California QSO Party	Oct. 6-7
Columbus day	Oct. 8
ARRL National Convention Pacificon	Oct 12-14
Board Meeting	Oct. 23
Halloween	Oct. 31
Membership meeting	Nov. 6
Clarksburg run.	Nov. 11
Board Meeting	Nov. 27



ARRL NATIONAL CONVENTION / PACIFICON

This year the ARRL National Convention will be held in conjunction with Pacificon.

It will be held Oct. 12-14 in Santa Clara at the Marriot Hotel.

This is a great opportunity to attend a national convention.

Further information can be found at:

Pacificon

<http://pacificon.org/home.html>

ARRL

<http://www.arrl.org/2012-arrl-national-convention>



Clarksburg Country Run

November 11, 2012 is just about Eight weeks away, so it's time to prepare for the Clarksburg Country Run. For over a decade the River City ARCS has provided radio communications support for this event now in its 47th year. Many of us refer to it as the "Fun Run" because that exactly what it is. There are Five Runs all using parts of the same course. So, it gets to be fun figuring out just who is where!

This is a fun-raiser for local charities and the Clarksburg School District. Usually, there are over 1500 entrants from all over the state. Each of the six Aid Stations is staffed by the local High School Students under the supervision of an adult. You can learn more about the event by going to its website, <http://www.clarksburgcountryrun.com>.

Please mark your calendar and plan to help us. If you are new to ham radio and have some fears, we'll match you with an experienced operator. If you've been around for a while and just want to try out your "go-kit", it is a good time to do it. An HT or mobile unit will work fine. For more information, or to sign up to help with this event, contact Paul, N6DRY@arrl.net or by phone at 916-427-5676.



VHF Propagation Modes – Part I - Line of Sight Propagation

By Carol Milazzo, KP4MD

This is a review of Line of Sight Propagation - the first of the series of presentations on VHF/UHF propagation given at recent meetings.

By definition, VHF, or very high frequencies, includes that part of the radio spectrum from 30 to 300 MHz. This includes our 6 meter, 2 meter and 222 MHz ham bands. UHF, or ultra high frequencies, range from 300 to 3,000 MHz (3 GHz). This includes our 420 MHz, 902 MHz, 1240 MHz, and 2300 MHz bands. Radio propagation at these frequencies primarily follows line of sight, and the power of the radio wave decreases according to the Inverse Square Law. For example, if you double the distance between the transmitter and receiver, the received power drops to $\frac{1}{4}$ or -6 dB, and at ten times the distance, the received power drops to $\frac{1}{100}$ th or -20 dB.

The distance from a transmitting antenna to the horizon may be calculated using the earth's radius (3,959 miles) and the Pythagorean theorem, but a simplified formula is $D=\sqrt{2 \times H}$, where H is the antenna height in feet and D is the distance to the horizon in miles. This formula accounts for the effect of the atmospheric density gradient that bends radio waves to about 15% further than the optical horizon.

Using this formula, we see that a 25 foot high antenna would provide a range of merely 7 miles to the horizon—a reason why repeater stations on high towers and hilltops have become popular on VHF and UHF frequencies. Our N6NA repeater at 2000 feet has a 63 mile range to the horizon, connecting a large area in the Sacramento and San Joaquin valleys.

VHF and UHF propagation may be enhanced by reflections or degraded absorption by objects in the path of the radio waves. Trees, hills and buildings present greater signal attenuation at UHF frequencies and precipitation attenuation becomes significant above 1 GHz.

Horizontally polarized antennas are favored for weak signal work as they reject most man-made electrical noise that tends to be vertically polarized. Horizontal directional antennas also provide greater directivity and greater rejection of noise from unwanted directions. For weak signal work, both the transmitter and receiver antennas should use the same polarization as a mismatch may cause a signal loss of up to 30 dB. Vertical polarization has become favored for VHF and UHF mobile operation due to the simplicity of a vertical whip as an omnidirectional antenna.

The next part in this series will review Tropospheric Ducting.