

FEBRUARY 2007

THE MONTHLY NEWSLETTER of the SANTA CRUZ COUNTY AMATEUR RADIO CLUB

SHORT SKIP



Traditions in Ham Radio

Wayne Thalls, KB6KN

Some things seem never to change. That certainly applies to our hobby. Just listen to on-air conversations and a common topic is a discussion of antennas and propagation.

Old publications contain numerous articles discussing antennas and radio wave behavior. Prior to the mid-twenties scientific knowledge about wave propagation was sparse.

Anything above 1500 kc—1500 kHz to you kids—was short wave. Hams pretty much had the region of 200 meters and down to themselves. Everyone was striving to achieve regular long-distance communications.



John Reinartz, 1QP / K6BJ

An article in the November 1921 issue of QST recounts the wonderment of the time. It was commonly assumed that received signal strength would have a direct relationship to the distance traveled. In other words signal strength would be inversely proportional to the distance between two points. Short distances would be easy, but tremendous power was needed to deliver signals over longer stretches. Actually, that theory is sometimes still encountered. When signals were heard from a thousand miles away there was great consternation. Baltimore hams experienced great difficulty talking to Washington, a mere 35 miles away.

In the May 1923 QST John Reinartz, 1QP, has an article entitled *What I Found Out*

About Sending Aerials. He summarizes a month-long test of 26 different types of antennas. The tests were conducted with the aid of his wife, Gertrude. They compared various flat-top and cage type arrays. An RF ammeter in the feed line measured the efficiency of each.

His conclusions were; DC resistance is of little consequence. HF resistance (impedance) was much more important. The flat-top antenna was best.



The cage antenna should be used only when space is limited.

The September 1923 QST contains a brief article by Don Wallace, 9ZT (later W6AM) in Minneapolis. He theorized that radio waves followed isobars—those lines denoting areas of equal barometric pressure. When radio waves followed those meandering lines, marked fading would occur. This was attributed to fluctuations in pressure at the edge of the high-pressure areas. Just think, if that theory had panned out we would now be watching the Weather Channel to determine our DX targets.

John Reinartz had another article in the

April 1925 QST. *The Reflection of Short Waves* provides an engineering based explanation of wave reflection by the Heaviside layer (ionosphere). This followed his achievement of the first two-way trans-Atlantic communications in 1923. He soon set another record when he made the first transcontinental 20 M contact at mid-day—Connecticut to California.

Reinartz was a prolific contributor to QST and other journals during the 1920s and 30s. Many years later he became K6BJ, and was a member of the SCCARC.

K6BJ JOHN L. REINARTZ
Memorial Station
Santa Cruz
County
Amateur
Radio Club
P.O. Box 238 Santa Cruz
California
The Reinartz Tuner

February Speaker

The program for this month is Ron Skelton, W6WO demonstrating a collection of RF design software programs that he used in designing various RF devices...

Radiofest

Also, a heads Up for everybody! Be sure to go to the Radiofest in Monterey

Sat 24 February.

Think about whether SCCARC would like to have a table there...

More info at: <http://www.radiofest.org>

—73, DX, de Pat AA6EG

CLUB MEETING FRIDAY FEBRUARY 16, 7:30 P.M.



CAKE Ingredients Feb. 3rd

Twas a very bright day when our group of some (but by no means all) of the brightest minds in our club showed up for breakfast, coffee and all manner of technical give and take. Take Dave W8FLL (not literally though) who showed a very cool Antenna Wire Dipper that he built from a 4-State QRP Club <http://4sqrp.com/> kit. Optical feed back and talks to you in Morse Code!

Rich W1WUH handed out copies of the Dec. issue of Circuit Cellar magazine with articles on analog techniques. He showed off his tee shirt saying "Forced to Design Alien Technology" I didn't quite catch the connection with wire recording used by the Germans in WWII but it does indicate that our interests span many decades.

Bob K6XX described his efforts to model antennas to cover the whole 80 band using the slick and free modelling program MMANA-GAL. <http://mmhamsoft.amateur-radio.ca/mmana/index.htm> Hey Bob I can get you any modelling results you need HI HI. Comments were heard about broadband noise on 40 meters likely coming from Chinese over-horizon radar. Kathleen KI6AIE showed some of her back-to-the-shack pictures. Where would we be without her!

Larry WB6MVK wants help locating information on how to install a Yaesu digital readout in a SB101. Seems odd that Yaesu can't help. Mebbe post the question on eHam Larry.

Barry NR6S came with intriguing software called BARTPE PE stands for Partial Environment and allows selection and copy of only those key elements from a full blown Windows OS of interest to the user. This provides valuable economy in resources and portability and could be the answer to upgrading computers that are unable to run full versions of XP. <http://www.nu2.nu/pebuilder/> Gotta try that Barry.

As we encourage some non-technical diversions it was fun to see the video Mikey N6IL

provided of interaction between Pres. Bush and our Sec. Of State.

Ron W6WO illustrated measurement of the inductance contributed by ferrite beads. The question of the day was "What is the melting point of copper and why could this be of interest?" Reed N1WC got it about right, 1085 degs C. It could be valuable in the field of Forensic Electronics by helping to locate the cause and location of certain catastrophic failures.

As always I missed a lot, like your conversations Art WF6P and good to see you Frank K6BDK. Just as a reminder we welcome participation by any ham, or would be ham, with technical questions of any kind and at any depth. BCNU in a fortnight!

RADIO LAW

A proposed new driving law aimed primarily at banning all cellphone use while a vehicle is in motion could also mean an end to ham radio mobile operation in New Mexico. This, because it prohibits the use of any and all two-way mobile communication devices while operating a motor vehicle, even if the communications device can be operated hands free.

Introduced to the legislature by Representative Antonio Lujan, the law would define a mobile communication device as being a cellular telephone or any other device that enables a person to transmit to and receive signals from another person or device. The only people exempted from the ban are those reporting an emergency situation, or commercially in the performance of ones job duties.

The proposed law is very narrow in defining an emergency. It calls it a situation in which a person has reason to fear for his or her life or safety or believes that a criminal act may be perpetrated against that person or another. The also includes reporting a fire, a traffic accident in which one or more injuries are apparent, a serious road hazard, a medical or hazardous materials emergency or a person who is driving in a reckless, careless or otherwise unsafe manner.

So far, there is no exemption for radio amateurs, even during times of emergency communications training exercises. A first time conviction of using a two-way device while in motion in New Mexico would bring with it a \$30 fine. (K5FSB)

—From Amateur Radio Newline

ARRL Rolls Out New Web Site

"Ham Radio . . . Getting the message through for your family and community" is the theme of the League's 2007 public relations campaign. The "Emergency Radio" Web site <<http://www.emergency-radio.org/>> debuted this week. ARRL Media and Public Relations Manager Allen Pitts, W1AGP, says the 2007 PR initiative picks up the momentum ARRL public information officers started during the just-ended "Hello" campaign.

"As we begin launching the new emergency communications campaign, the friendships and good will developed in Hello will aid in future promotions of Amateur Radio," Pitts said. "For 100 years, radio in its many forms has saved lives and aided in crises. We have a great legacy and a bright future."

The new Web site is a partner to the "Ham Radio . . . Getting the message through for your family and community" brochure now available and, in fact, already starting to make the rounds. "If an emergency or disaster should happen, the new 'Ham Radio . . . Getting the message through' site has the capability to quickly upload current information, providing PIOs with words and pictures to circulate to the media while the event is still news," Pitts explained.

As both the brochure and the "Ham Radio . . . Getting the message through" Web site note: "Amateur Radio . . . has consistently been the most reliable means of communication in emergencies when other systems failed or were overloaded." The campaign stresses that ham radio works and works well and it doesn't require any external infrastructure, such as telephone lines or even the Internet, to get the message through.

The Web site provides page space for emergency communication and disaster relief organizations to tell about their work. "So far, SKYWARN, MARS, SATERN and RACES have taken advantage of our offer, showing the versatility of ham radio in disasters and emergencies," Pitts says, "and more are expected."

The campaign also emphasizes that ham radio is fun and a good way to keep in touch with friends or family. "You can have this capability for yourself and your family," the campaign points out, inviting members of the general public to get an Amateur Radio license and become active in emergency communication through the Amateur Radio Emergency Service (ARES) or other organization. A "How to Get Started" tab on the Web site offers step-by-step instructions.

Treasurer's Report

At the January 2007 Board of Directors meeting, Treasurer Kathleen McQuilling, KI6AIE, reported that the SCCARC treasury had \$5,472.30 in cash and bank accounts. At that time all financial obligations had been met for which invoices had been received.

HRO Discount for Club members

SCCARC members are eligible for a 5 percent discount at HRO in Sunnyvale on a purchase over \$20 excluding radios. Show them your current membership card once and they will update their database for future discounts.

ARRL Membership: A Cut For Your Club

You can save yourself 39 cents and make a "painless" donation to your local Club at the same time by joining ARRL or renewing your ARRL membership through the Santa Cruz County Amateur Radio Club. Just bring your check, made out to "SCCARC" instead of "ARRL," along with your ARRL membership form, to the next Club meeting. We will send ARRL your paperwork and dues (less \$15 for a new membership or \$2 for a renewal).

Rescue Radio

NYC TO INVOLVE THE WIRELESS PUBLIC

New York City is embarking on some new rescue radio technology to help protect all who live there. This, by getting them more involved in the process by using the communications technology they already have at hand. Jim Meachen, ZL2BHF, reports:

In the not-too-distant future, callers to New York City's emergency 9-1-1 and non-emergency 3-1-1 centers will be able to send digital photos and videos to augment the activities being reported.

John Feinblatt, the mayor's criminal justice coordinator, could not say how long it will take to implement the plan, but said it would be fairly inexpensive because the technology already exists. Feinblatt said that the popularity of text and photo messaging and Internet services like Google and YouTube made this initiative a natural next step for emergency services.

Mayor Michael Bloomberg, who built his fortune on innovations in information technology, called the video addition a "revolutionary innovation in crime fighting." The mayor added that New Yorkers who see a crime in progress or a dangerous building condition will be able to transmit



By Art Lee WF6P

CHATTER

Another beautiful pre-Spring day in Santa Cruz was celebrated by the CAKE group under the direction of Ron, W6WO. On hand were the usual suspects armed with three, count 'em, three laptop computers. With the group of about a dozen of us laughing and scratchin', we have folks walking up to us asking what and who we might be. Ham radio operators, we are. Some patrons envy us, wishing they might be like us "happy, interested folk," obviously enjoying ourselves. Always there are lil toys to pass around and play with. "What's this?" always asks the contributor.

Frankie Carroll, K6BDK, brought in a chrome-plated Bencher paddle either broken or worn out from constant hard use. Various methods of repair were discussed and batted about. I was going to suggest applying some welder's torch heat to make straightening a bent part easier. Bob, K6XX, took a more gentle approach.

After removing the plastic paddles, a spring and several screws, he suggested using two pipe wrenches to really force the metal to make it right again. Frankie seemed happy that his friends helped. He scooped up all the pieces, screws and the actuating spring and put them in his pocket. I was thinking a self-locking plastic baggie wud prevent loss in case he had a hole in his pocket. (Note: My Iambic Racer paddle had cracked plastic handles after a couple of decades of use. A little ribbon of glue laid along the fracture line took care of that problem although the alignment is a bit skewed. (I shudda used a clamp to ensure an original profile.)

Sat next to Kathleen, KI6KIE, while she connected her computer and contacted her mentor Dave White, WN5Y, back in Texas. They chatted and with Kathleen as control operator, I said my "Howdies" to Dave. This was my first on-the-computer QSO so how do I log it? Should I send a QSL card? Oh, Kathleen is a musician, plays a Cello. I asked Larry Edler, WB6MVK, if he is keeping up with his piano work. He owns a baby grand piano he has played since he was a young boy. I played it once "it has a nice tone."

I'm on the 40 meter band daily but propagation is terrible. Being at the low side of the sunspot cycle is disappointing but my readings indicate that maybe next year we will begin our upswing. Yea

Crystal Radio Sets?

An entire site about building Crystal Sets.

The Society has been growing over the past 13 years as word gets out to enthusiasts. Still, some people are flabbergasted to find an entire society dedicated to Crystal Set radios (or "Xtal Sets"). One web surfer e-mailed, "I was so excited to find your site that I fell off my chair!"

The Xtal Set Society publishes a newsletter and numerous books, all of which you can find more information about on this site at <http://www.midnightscience.com/>

—Rebecca, The Crystal Queen, Editor, Xtal Society News

images to 911, or online to nyc.gov.

No date has been announced for the rollout of this new wireless video reporting technology to go into use. (CGC)

—From Amateur Radio Newline

Visalia International DX Convention 2007

The 2007 International DX Convention will take place April 27, 28 & 29, 2007 at the Holiday Inn Hotel & Conference Center in Visalia, California. This is an ARRL sanctioned convention that is sponsored this year by the Northern California DX Club. It is expected to draw visitors from around the World and will feature programs from recent DX-Peditions and contest operations.

The Convention theme this year is, "Elmering New DXers is Job Number One!" Current information and registration forms are available on the Convention web page, which can be found at www.dxconvention.org. Additional registration information can be obtained by contacting Convention Registration Chairman, Dick Letrich, W6KM via Email at dlw6km@aol.com.

SCCARC Board - 2007

President	Christopher Angelos	KG6DOZ	688-3562
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	Ron Skelton	W6WVO	477-1021
K6BJ Trustee	Royce Krilanovich	AC6Z	475-4798

MONTEREY BAY REPEATER ACTIVITY

Santa Cruz County ARC	K6BJ 146.790- PL 94.8 Santa Cruz KI6EH 147.945- PL 94.8 Watsonville K6BJ 440.925+ PL 123.0 Santa Cruz • SCCARC Net Monday 7:30 PM 146.79- /147.180+ /440.925+ linked • SCCARC 10 Meter Net 28.308 MHz USB Monday 7:00 PM
San Lorenzo Valley ARC	WR6AOK 147.120+ PL 94.8 Ben Lomond • SLVARC Net Thursday 7:30 PM
Loma Prieta RC	WR6ABD 146.640-(PL 162.2) • LPRC Net Tuesday 8:00 PM
Naval Postgraduate School ARC	K6LY 146.97- PL 94.8 / 444.700+ PL 123 (Linked) Monterey • NPSARC Net Wednesday at 8 PM on K6LY/R • Monterey ARES Net Wednesday 7:30 PM K6LY 146.970- (PL 94.9)
ARES Nets	SC County Wide ARES Tuesday 7:15 PM on AB6VS 440.550- W6WLS 147.180+ AE6KE 146.835-(Linked repeaters / PL 94.8)
Followed directly by	• SLV ARES W6JVS 146.745-(PL 94.8) & WR6AOK 147.120+(PL 94.8) on alternate Tuesdays • South County ARES K6RMW 147.00+ (PL 94.8) • LPrieta ARES AE6KE 146.835- / AB6VS 440.550+ (Linked /PL 94.8) • Santa Cruz ARES K6BJ 146.79- / (PL 94.8)
	• Newline (Ham News) Broadcast Wednesday at end of NPSARC Net • Santa Clara Valley Section Traffic NET Tuesday 9:00PM 146.640- (PL 162.2)

FOR MORE INFO SEE: <http://www.k6bj.org/freq.html>

SCCARC Calendar of Events

SCCARC Meeting	Friday	Feb 16
Board Meeting	Wednesday	Feb 28
Short Skip Deadline	Monday	Feb 5
SCCARC Meeting	Friday	Mar 16

MONTHLY MEETINGS.

The SCCARC Meets at 7:30 PM, on the THIRD FRIDAY of the each month (except December). Meetings are at Dominican Hospital, 1555 Soquel Drive, Santa Cruz.

NET CONTROL SCHEDULE

(Subject to Change)

2/12	Phil KE6UWH
2/19	Allen WB6RWU
2/26	Chris KG6DOZ
3/5	Tom K6TG
3/12	Cody KG6YPK

Short Skip

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Free to members.

Santa Cruz County Amateur Radio Club, Inc.

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Don't Need Short Skip In Your Mailbox?

If you're getting Short Skip by postal mail but would rather just read it on the Club's web site, just let me know at ki6aie@k6bj.org and I'll take care of it. If you're on the K6BJ email reflector, you'll get notification when each month's Short Skip has been posted to the Club web site.

SCCARC Membership Renewals

If the date on your mailing label isn't in 2007, your membership renewal has not been processed for this year. The renewal deadline to be included in this year's member roster is March 31 (this is also the deadline for address/phone/email updates). Annual dues are \$25 for full members, \$6 each for each additional member at the same mailing address, and \$10 for full-time students age 18 or under. Dues may be paid in cash or check (payable to SCCARC) at regular Club meetings, or checks may be mailed to SCCARC, P.O. Box 238, Santa Cruz, CA 95061-0238. Remember, ARRL dues may also be paid through your Club. Any questions, call me at (831) 476-6303.

—Kathleen KI6AIE, Treasurer, SCCARC