

# SHORT SKIP

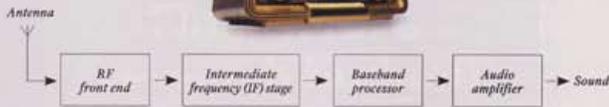


## Evolutionary Developments

Radio steps into the digital age

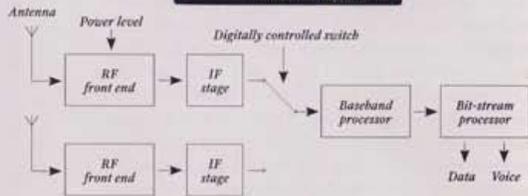
### HARDWARE RADIO

Only modification through physical intervention



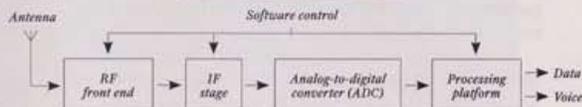
### SOFTWARE-CONTROLLED RADIO

Computer selects circuitry to use



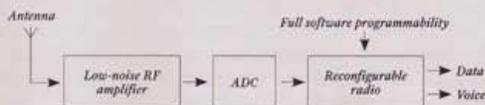
### SOFTWARE-DEFINED RADIO

Software handles (de)modulation, frequency selection, security functions



### IDEAL SOFTWARE RADIO

All but initial amplification is done in software



## Thoughts on Field Day

Have some general thoughts on Field Day... (More coming)  
 Typical Field Day strategy questions: High power vs. low power

The choice of high power (usually 600W and up) versus low power (150W and below) comes down to operator rigor and the technical issues involved with multi-station interference. Running high power gives you a commanding signal at Field Day. It makes it easier to run a frequency and defend it from interlopers. The downside of running high power is that you lose the factor of two low-power multiplier for your contacts. This means your operators will have to make twice as many contacts with high power as they would with low power to get the same score. TWICE AS MANY CONTACTS (ugh!)

High power is well suited for the high-speed, low-drag operators who expect to spend a lot of their time running a frequency. If our operators are newer and will be doing a lot of search and pounce it is hard to overcome that factor or two difference.

Running high power at Field Day leads to another consequence not found during home operation.... inter-station interference! Running low power, Field Day inter-station interference can usually be addressed by physical separation and "professional grade" radios with filters. I usually bring my multi-station interference book, a chunk of raw coax and some tee connectors "just in case" we need to address a specific interference issue.

With high power, the problems are up to 13 dB worse. You enter into a situation that inter-station interference WILL be a problem, and, even worse, entered a situation where actual radio damage is likely. Specific planning, design, hardware, operating procedures and coordination are needed to successfully pull that off. We're good, but not THAT good yet.

So what are WE at the Santa Cruz County Field Day going to do? We'll be running low power, but with a request of the station captains. If they have small linear amplifiers such as AL-600s or SB-200/201s, we'll ask that they bring them to make sure that we're running EVERY WATT of the 150W we're allowed!

—Donald AE6RF

## April Speaker

Our speaker for this month (pending email reply) will be Bob Wiser, K6RMW, speaking about the Watsonville Fly-In/Airshow, what we do there and what help he needs this year.

—73 de Grera KI6NTL

## Volunteers Wanted!

Our local ARES group provides communications support for a number of public service events and we would love your help. You can find our schedule at <http://www.ares.santa-cruz.ca.us/events.html>. Many of the listed events have links to the event organizer's websites, as well as contact information for volunteering. Working public service events is a superb opportunity for learning and enhancing your net operations and message handling skills. While this is especially true for new hams, it is also good practice for veteran hams. We get the chance to improve our skills and the organizers of the events really do appreciate the capabilities we are able to provide. It is a win-win proposition, so please check out the schedule, pick an event (or two), and join us!

—73, Jerry Inman, AE6I

Emergency Coordinator - Santa Cruz  
ARRL Amateur Radio Emergency Service  
831-334-4086 [a6i@live.com](mailto:a6i@live.com)

## Field Day Tee Shirts

Rich, KE1B, has volunteered to coordinate Field Day polo-shirts.

These would be our own custom polo-shirts not the ARRL Field Day tee-shirts.

If interested, contact [ke1b@richseifert.com](mailto:ke1b@richseifert.com).

## Flea Market

- Livermore SWAP: Robertson Park, Livermore  
1st Sunday of the month, March through November
- ASVARO Electronics Flea Market: De Anza College, Cupertino  
2nd Saturday of the month, March through October

## Tech/General License

I would like to know if there are hams that would like to help with a Tech/General class at Santa Cruz Harbor either May or in the Fall. We would need 3-6 hams to help with the class. Most likely it could be on a Saturday, 1300-1600 hrs for about 4 weeks.

—Peter KE6RAX

## The ICQ Amateur / Ham Radio Podcast

There is a new free Podcast (broadcast), by amateur operators for amateur operators—The ICQ Amateur / Ham Radio Podcast.

A Podcast is, it's an audio file which has been compressed into MP3 digital format. These files can then be played on a MP3 Player, a computer, or some CD players that can read this format direct from a disc. My son Colin and I have decided to record a fortnightly Amateur Radio

Podcast called ICQ Podcast. The aim of the podcast is to help new entrants to the hobby learn and understand the technical detail to attain their licence, while providing experienced operators with a combination of news, reviews, opinions, upcoming events, features and reports. The podcast is recorded for amateurs and including amateurs. Previous episodes have covered topics including operating on holiday in Cyprus, an introduction to building an 80m SSB Kit and microphone modifications and new product re-vIEWS.

We have also hosted roundtable discussions reviewing 2008 for Ham radio and a new-bie roundtable discussing their enjoyment of their new hobby. We are looking for other contributors to become involved. If you are interested, please e-mail [info@icqpodcast.com](mailto:info@icqpodcast.com)

If you would like to find out more please visit our website at

<http://www.icqpodcast.com/> or search iTunes for "icqpodcast" and download an episode or two. Thank you for your time.

—Martin Butler M1MRB

## Ham Fest

Valley of the Moon Amateur Radio Club (VOMARC)

Hamfest on April 25th (8am to 1pm) in beautiful Sonoma.

Activities include a swap meet, VE session, breakfast, fox hunt and a lot friendly folks.

We will also have emergency vehicles on display, including the Sonoma County Sheriff's Department Mobile Command Center and Communications Truck.

Go to our website, [www.VOMARC.org](http://www.VOMARC.org) for more info, flyer and a map or e-mail us.

## Hank Bond KG6EE SK



Services were held March 20 for Henry Wieland Bond, who died of lung cancer March 14 in Scotts Valley. He was 78.

Mr. Bond was raised in Tangipahoa, La., and also lived in New Orleans. He graduated from the Rugby Academy in Louisiana in 1948 and served in the Army National Guard of Louisiana from 1948-1952. Locally, he lived in Santa Cruz and most recently Scotts Valley.

As a young man, Mr. Bond sang as a basso profundo for three years in the chorus of the New Orleans Opera Co. He was a licensed amateur radio operator and lifetime member of the Santa Cruz Amateur Radio Club who liked to build radios and computers and donate them to those who couldn't afford them. He was also a member of the Amateur Radio Emergency Service and participated in local flood and earthquake emergencies. He was involved in the Sea Scouts and served as a mentor to many young men. A former president of the SPCA, he cared greatly for abandoned or unwanted animals. He also enjoyed gardening and researching family history.

—Santa Cruz Sentinel 3/19/09

## W6ZZZ Memorial Scheduled

Marc's memorial is scheduled for Saturday, 16 May beginning around 1-2pm.

The exact time will be included with the final details later. It will be held at the Redwood Amphitheater & Gazebo park area on the old Loma School site on Summit Road about 2.5 miles east of Highway 17, not far from Marc's and Sue's home.

—Ed - WOYK



By Art Lee WF6P

# CHATTER

Am reading a book about the recapture of the Philippines in WWII. *Shadows In The Jungle*, by Larry Alexander, describes the arduous adventures of Americans in a special scouting force. They were sent ahead of the U.S. forces to reconnoiter enemy positions on various islands in preparation for our landings. These special forces, called Alamo Scouts, were regular US Army soldiers trained in jungle warfare and survival. Their tasks took them by submarines to enemy held islands where they were put ashore in rubber boats. Once ashore they had to evade the Japanese army and plot out hidden gun positions and supply dumps. The teams consisted of seven men each, including one radio operator. Their lifeline was his radio, depending on it for airdrops of food, ammunition and medicines. These were often shared with native guerrillas who fought the enemy and provided the teams with vital information. Alamo Scouts

were on the move constantly, setting the radio and antenna up in dense jungle sites. I have been in some of the same jungle sites on Luzon and other tropical islands. Many were nearly impenetrable. The author's description of the team's hardships was detailed down to their lying absolutely still as every manner of insect, snake or crawling creature invaded their space. Or was it the other way around? Some of their observations of enemy movements kept them far too close for my comfort. The one thing they worried about was communications failure. This happened on some occasions. Imagine dragging your radio, antenna and batteries around in the rain, heat and humidity on these equatorial islands -- and very often on the run. Calling on schedule for a submarine, PT boat or PBY pickup was pretty iffy. Without a means of extraction, they had to join up with natives and seek out guerilla camps to get radio messages out.

All of this sounds a lot like our upcoming Field Day. Imagine having Field Day with your signals being monitored and homed in on by folks ready to harm you - permanently. And no tee shirts to show for it!

After viewing a friend's tower and antenna, I had a dream that I was re-erecting my own. This involved lotsa work, stringing new coax, etc. When I woke up, I was tired. Geez!

## W6WO in QEX

In this issue, Gary Steinbaugh, AF8L, introduces us to "A Cybernetic Sinusoidal Synthesizer." The initial part presents some interesting history and theory of feedback control. The system includes an oven-stabilized crystal-controlled oscillator, a PLL frequency synthesizer with a low phase noise sinusoidal output, a variable gain RF amplifier for automatic power level control and an RF power meter with a digital readout in dBm and an analog voltage output. Subsequent articles will describe these circuits in detail. Ron Skelton, W6WO, takes us "Exploring Near-End-Fed Wire Antennas" by modeling his design using EZNEC, and then building a 40 meter version to verify the modeled performance. Ken Grant, VE3FIT, describes "A Versatile Two-Tone Audio Generator for SSB Testing." This handy piece of test gear could be a valuable addition to your test bench.

—from From the ARRL Letter, Vol. 28, No. 8

## A Complete Television Receiver

At last, with the announcement of a television receiver shown at the left and right, the public is beginning to get a glimmering of the particular corner around which television has been hiding for the last few years.

The set is a product of the Hutton Television - Radio Corp. and bids fair to find an excellent market. It incorporates, aside from the television receiver, a broadcast receiver so that the reception of sound and image may be made simultaneously.

The set has two main features: First, the disc is stamped from a single sheet of metal, and is slotted radially, so that each section between two slots may be bent at different angles; second, the crater lamp is so placed with respect to the screen that a long beam-length

is secured in a very short space.

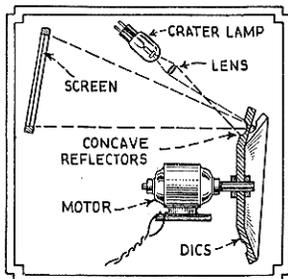
These two points are illustrated in the drawing reproduced here. In each of the sections mentioned, a concave indentation is stamped and its surface polished. The crater lamp is so focused that the diverging

beam of light from the lamp strikes the disc and is reflected to the screen. Thus, all of the light is utilized and a picture 5 x 6 inches is secured in a cabinet whose depth is only 11 inches.

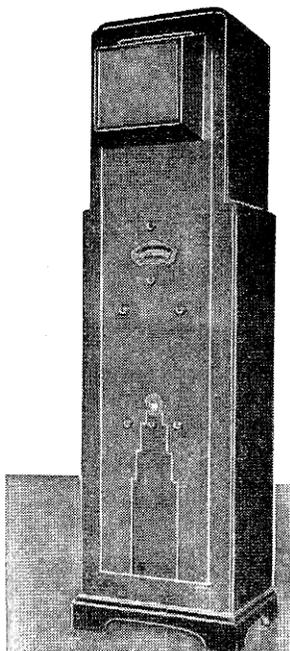
The photograph at the right shows the 60-line disc removed from its motor in order to illustrate the respective location of the crater lamp and its associated parts.

Sound is emitted from the loud speaker at the top of the grandfather type console illustrated.

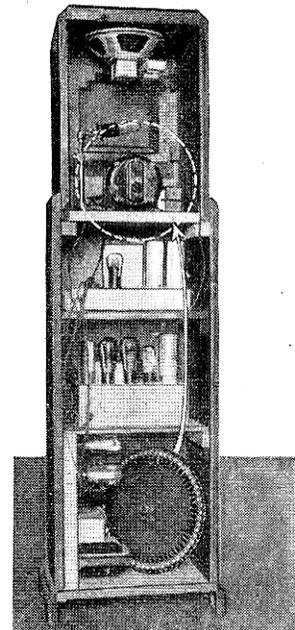
Clyde Fitch is the inventor.



Schematic of lens system.



The television receiver



Rear view of the combination television and broadcast receiver.

## SCCARC Board - 2009

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	Bruce Hawkins	AC6DN	
	Jeff Watson	KG6YPS	
<b>K6BJ Trustee</b>	Allen Fugelseth	WB6RWU	475-8846

## MONTEREY BAY REPEATER ACTIVITY

Santa Cruz County	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 Monday 7:00 PM 28.308 MHz USB
ARES Nets	SC County Wide ARES Tuesday 7:30 PM on 147.180+ PL 94.8 443.600+ PL 110.9 (Linked repeaters)
San Lorenzo Valley	WR6AOK 147.120+ PL 94.8 Ben Lomond • SLV Net Thursday 7:30 PM
Loma Prieta	AB6VS 440.550+ / AE6KE 146.835- PL 94.8 (Linked for net 94.8) • LP Net Tuesday 7:15 PM
Monterey	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) • Newsline (Ham News) Broadcast Wednesday at end of NPSARC Net
LPRC	WR6ABD 146.640- PL 162.2 / 442.900+ PL 162.2 (winsystem) • LPRC Net Tuesday 8:00 PM 146.640- (PL 162.2) • Newsline (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	Apr 17
Board Meeting	Wed	Apr 22
Short Skip articles due	Friday	May 4
SCCARC Meeting	Friday	May 15

## MONTHLY MEETINGS.

The SCCARC Meets at 7:30 PM, on the THIRD FRIDAY of the each month (except December). Meetings are at Harbor High School, Campus Library (off of the upper parking lot. Map at <http://tinyurl.com/sccarc-meeting-location>

## NET CONTROL SCHEDULE

(Subject to Change)

4/13	Chris KG6DOZ
4/20	Diane KI6IFS
4/27	Cody KG6GPK
5/4	Greta KI6NTL
5/1	Phil KE6UWH
5/18	Tom K6TG

## SHORT SKIP

Published 12 times per year.  
Free to members.

**Santa Cruz County Amateur Radio Club, Inc.**

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Santa Cruz, CA 95061-0238



SANTA CRUZ COUNTY AMATEUR RADIO CLUB  
P.O. BOX 238  
SANTA CRUZ, CA 95061-0238

## SCCARC Membership Renewals

If the date on your mailing label isn't in 2009, 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), but please renew early if you can. 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.

—Kathleen KI6AIE, Secretary, SCCARC