

# SHORT SKIP



## K6BJ REPEATER FIXED

You knew the repeater had a problem. Turned out the mast at the top of the tower for the K6BJ 2 Meter Repeater omni antenna had broken apart and the top piece of the mast along with the antenna was hanging upside down against the tower from the coax feedline. Mike W6YDG took down the broken mast piece and refastened the antenna to the stump piece that was left standing upright. Fortunately that worked fine and the link to Watsonville was also (somehow) restored when that was



done. Now the 2 Meter repeater antenna is about 8 feet lower than it was and it's radials are only 2 feet above the 440 repeater antenna's radials. Mike was off the roof with a few minutes left before sunset. Assistance from Bruce AC6DN and Mike were instrumental in this fix. Thanks. Bruce and Phil KE6UWH confirmed things were working at sunset. A more permanent repair will be made when the weather is warmer. Hope this helps.

—73, Cap KE6AFE

## CLUB STATION

We now have an operational HF club station. I plugged in the ICOM 701 donated by Mary Duffield, and it works! I made a number of contacts on 20 meters, both CW and SSB, and received very good RST reports. I am hoping that we can use this station to work contests and special events as a club station, and also for casual operating for club members who so desire: this is especially nice for those whose QTH's have restrictive antenna ordinances. Now one of your perks as a member of SCCARC is access to the club station. If you are interested in gaining access privileges to the station, let me know and I'll fill you in on the details. Those who already have access privileges (that would be anyone has been given the combination to the lock) are welcome to go check out the rig anytime. The manual for both the rig and matching power supply is there, and the basic operating instructions for CW and SSB are also written on a paper on the desk in front of the rig. Please remember to obey all FCC regulations when operating from the station - especially being careful to stay within the band privileges granted your license class. DO NOT ID as "K6BJ" - use your own call.

—73, KQ6DV

## CAKE CAUSES NEAR RIOT

Once again our meeting at Surf City coffee shop was a near riot. Those present were Pat AA6EG, W7QHE and XYL Lois, Dave W8FLL, Vic KG6JQQ, David KG6IRW, Eric K6EP, Eric WA6HHQ, Richard KG6AXD and your scribe Ron W6WO. We were also pleased to see John Randall who has no licence at present but who showed up at our last club meeting.

Pat described some items he had acquired from the Bill Orr estate one being an LC tuned circuit which he has used as a teaching aid. Pat also showed pictures of the antennas at N6IJ and invited SCCARC members for a field trip to the site. Dave discussed the source of voltage drop in battery leads and described how he fixed a problem in a Radio-Shack 10 meter antenna.

There was a heated discussion (pardon the pun) on water cooled amplifiers. Novel ideas submitted included tropical fish aquarium and hydroponic vegetable growing. Eric discussed the use of parallel crystals in the K2 to increase the frequency shift possible with varactor diodes. Eric also mentioned the use of a host filter feature of Windows to stop unwanted advertisements. Eric demo'd some of the filter design functions included on a W7ZOI disc.

Eric (EP) presented Eric (HHQ) with a certificate from the N. Cal Contest Club for his talk on advanced RX design.

Ron posed questions about the choice of various forms of capacitors and the use of W2DU style ferrite loaded baluns vs air-cored coax coils. Pat offered a URL that covers these balun types.

Eric had his HT connected cross-band to the mobile rig in his vehicle which was listening to his 70 cm repeater and was in turn connected to I-Link. During our session we

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**CLUB MEETING FRIDAY APRIL 19, 7:30P.M.**



Published 12 times per year.  
Free to members.

Santa Cruz County Amateur Radio Club, Inc.  
Post Office Box 238  
Santa Cruz, CA 95061-0238

Editor and Publisher  
Ron Baldwin, K6EXT  
(831) 419-1025

K6EXT@fireclay.com

Columnist: Art Lee, WF6P

Writer: Ron Skelton, W6WO

Distribution: Elaine Pennell, KE6FRA



### Hello my friends in radioland.

With all of the turmoil in the world, it's time to take stock on the good things in life that we have. Amateur radio is one of these things. The other night on the Monday night net Dave W6TUW read the Amateur's Code to us (thanks Dave).

An Amateur is Considerate, Loyal, Progressive, Friendly, Balanced and Patriotic. Please read it over if you weren't there hear it. My friends this indeed is a great adventure we are on.

Keep up the good work!



By Art Lee WF6P

## CHATTER

Every year I go to the Santa Cruz Medical Clinic to donate a few vials of blood in hopes that the vitamins Donna gives me and food I eat doesn't clog up too many blood vessels. While sitting in the lab awaiting my turn to be stuck, I heard a familiar voice. Joe Myers, N6OAG, ambled in looking for another office. He and his XYL Helen, KC6OLA, look great. "Are you still using that Kenwood 930-S I sold you a dozen years ago?" Joe asked. I assured him I was and offered to let him in line ahead of me if he wanted some blood drawn. He didn't take me up on it.

Was interested in the recent article, "Pirate Radio Survives Regulation Attempts" in the April 1st edition of the Santa Cruz Sentinel. Radio Free Santa Cruz, 96.3 FM, is the station operating 40 watts since 1995. One would think the FCC would be concerned. I guess with no license to lose, they are impervious to governmental control. I read, occasionally, where a ham operator is fined and his ticket revoked for violating FCC regs - jamming, usually. In the case of the Santa Cruz pirate station there appears to be crime but no punishment.

Read an article in the Navy Times where the use of Motorola Talkabout two-way radios found a unique use. A wife bought a pair for \$60, sent one to her husband. When the aircraft carrier Theodore Roosevelt came back after six months at sea, it was hard for crewmembers and wives and families to pick each other out of the crowd before the

ship tied up to the pier. A wife contacted her husband on the radio, put up a colorful umbrella and asked if he could see her. Yes, he could. Keep in mind, there were 6000 crewmembers on the ship and a few thousand in the welcoming party on the dock. Speaking from experience, a six-month cruise is a long time to be gone. In the 60s our cruises were for eight months. During the Vietnam War, 11 month cruises were the "in" thing. Oh, in today's Navy, daily e-mail is the norm. Our mail used to take up to 30 days to reach us. The mailbags were a welcome sight when flown aboard or sent over via highline from a destroyer.

Ron Shannon, KD6BD, read an article of mine in the April issue of SAIL magazine and sent me a nice email. He and his XYL Miggles, N6FAC, are doing fine. Their baby just turned 14 (years). Boy, time sure flies. I'm still using a couple of antennas Ron gave me 20 years ago. When first licensed, Miggles and I used to get on 40 meters daily and practice our CW. They lived on the side of a mountain. Their access road was impassable after the 1989 earthquake and they were stuck in town for several days. Ron is very active in computers. He goes sailing with a friend on the friend's Olson 25.

As promised last month, here are my Tech Tips: For those looking to correct a weak or distorted signal in the Hudson-Essex (RCA) Model DB-37 auto radio, try replacing the open-circuited 3000 ohm resistor located under the type 12A7 tube. If this doesn't correct the problem, change the black bakelite-encased condensers located between the bases of the 6D6 and 6A7 tubes. If this doesn't correct the problem, check or a leaky 0.2 mfd cathode bias by-pass condenser in the pre-selector stage adjacent to the 25Z5 tube (Note: also works on the Spartan Model 600.) Next month: Trouble shooting the popular Stewart-Warner Model R-102A B&E receivers. I'll cover intermittent distortion, weak reception and poor tone problems.

## CLUB AUCTION

**APRIL MEETING!!** Bring your stuff — radios, electronics, old projects— anything the XYL wants out of the garage. Dan "motor mouth" Anderson will auction it off for you and the club will get a percentage of the sale price. It is a good cause and a lot of fun. It's worth coming just to see Dan call an auction.

## COOL WEB SITES

COOL FEATURE	COST \$	URL www.	CREDIT
Atomic clock/syncs PC Internet performance	Free	Worldtimeserver.com	W6WO
Club site	Free	Internettrafficreport.com	WA6HHQ
Antenna design	Free/23.97	lothlorien.com/slvars	KF6GPE
PSK 31 home page	Free	antennaex.com	KF6GPE
Mainly for DXers	Free	aintel.bi.ehu.es/psk31.html	KF6GPE
Air Core Balun Chokes	Free	hfradio.org/dx.html	WB6MVK
	Free	k1ttt.net/technote/airbalun.html	AA6EG

# Member Profile W6YDG



They say a picture is worth a1000 words so this month let the pictures speak for themselves. For instance what does this picture say about Ham Radio? It is not some designer tower base but a brick chimney under construction at the home of Mike Farinsky Snr. (W6YDG) with the professional help of Jim (KF6YRD). Jim like many club members want to say thanks for Mike's intrepid generosity when it has to do with antennas. Mike inherited his call from his grandfather and in many other ways he embodies the best traditions of our hobby by helping others. Mike has an impressive tower and antenna complex but what amazed me was his vertical poking out of the top of a 150 ft redwood. All I can say is *What a Guy !!!*



## 2002 Pacific Northwest DX Convention

Northwest's premier DX Convention which will be held August 2 - 4, 2002, near Portland, Oregon.

Full details and a registration form will be on our website (<http://www.wvdx.org/convention.htm>) shortly.

Any questions can be addressed to the Convention Chairman, Al Rovner, K7AR, [k7ar@ar1.net](mailto:k7ar@ar1.net) or (360) 256-7437.

## Riot Continued

received a call from Scotland and all around the table had the chance to say hello, much to the amusement of the GM station. Who said that I-Link is not ham Radio ??

Our next CAKE meeting will be announced via the Monday night nets on K6BJ.

CONNECT LOCALLY, COMMUNICATE GLOBALLY  
—73, Ron, W6WO

## Jason's Buoy Antenna

Thanks to all who showed up at the CAKE meeting today to discuss Jason's whip antenna. Essentially the question was by how much to shorten a standard marine frequency antenna to operate on a slightly higher frequency.

This was a deceptively simple question or was it ?

The complicating factor was the whip was designed nominally as a half wavelength although the actual measurement of 31.5 inches indicated that it was shorter than one would expect. Clearly something strange

was involved. Also as the base feed point is at a low current point the input impedance would be high and hence the base had to contain components to match a 50 Ohm coax. We had no details of the matching arrangement.

I modelled this antenna using EZNEC to first figure out how it worked at the design frequency. The input impedance was high as expected but it had an inductive component which was contrary to what I expected from an electrically short antenna. To bring the antenna to resonance at its design frequency required a capacitive load to offset this inductive component. Having found the right value for resonance the program showed that the input impedance (now resistive) was close to 300 Ohms. This is a reasonable load for the base matching components

If the antenna length was retained the SWR at the low end of Jason's band of interest was 1:1.6 and at the high end 1:2.3. Not a serious mismatch but just not good enough.

I found that EZNEC came up with an optimum length of 29.25 inches and yielded an

SWR of 1:1.2 at 165 MHz and 1:1.26 at 173 MHz which is very acceptable.

Since the physical length is directly proportional to wavelength the ratio of the two frequencies  $156/168.5 = 0.926$  should equal the ratio of the two dimensions. It was very close as  $29.25/31.5 = 0.928$ . Computers are wonderful but do we always need one ?????

Conclusions:

Actual antenna measurements of impedance or field strength would be complicated by the difficulty of setting up the antenna in a setting that would approximate it's operational conditions. To that extent computer models help.

I admit not to fully understand what is going on with this antenna but reducing the length by 2.25 inches seems to pass a sanity check pretty well. I doubt that the Whales would know the difference HI HI



## SCCARC Officers - 2002

<b>President</b>	Richard Trebbien	KG6AXD	426-0169
<b>Vice President</b>	Jim Welty	KF6YRD	685-9225
<b>Secretary</b>	Elaine Pennell	KE6FRA	429-1290
<b>Treasurer</b>	Cap Pennell	KE6AFE	429-1290
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	Allen Fugelseth	WB6RWU	475-8846
	Mike Doern	KF6UXB	477-1161
	Ron Skelton	W6WO	477-1021
	Royce Krilanovich	AC6Z	475-4798
<b>K6BJ Trustee</b>			

## MONTEREY BAY ACTIVITY

SCCARC Repeaters: K6BJ 146.790- PL 94.8 Santa Cruz ( linked w/Watsonville full time)  
 KI6EH 147.945- PL 94.8 Watsonville (linked w/Santa Cruz full time)  
 K6BJ 440.925+ PL 123.0 Santa Cruz  
 • SCCARC Net Monday 7:30 PM 146.79- /147.945- /440.925+ linked  
 • SCCARC 10 Meter Net 28.308 MHz USB Monday 7:00 PM  
 • SCARES Net Monday 8:30 PM 146.835-(PL 94.8)  
 • Watsonville ARES Net Thursday 8:30 PM 147.945-  
 SLVARC Repeater WR6AOK 147.120+ PL 94.8 Ben Lomond  
 • SLVARC Net Thursday 7:30 PM  
 SLVARES N6IYA 146.745- PL 94.8 Felton  
 • SLVRC Net Thursday 7:30 PM  
 • ARES Net Monday 7:30 PM  
 NPSARC K6LY 146.97- PL 94.8 / 444.700+ PL 123 (linked) Monterey  
 • Monterey ARES Net Wednesday 7:30 PM  
 • NPSARC Net Wednesday 8:00 PM  
 • Monterey Bay Traffic Net Nightly 9:00 PM  
 • Newsline (Ham News) Broadcast Wednesday 8:30 PM  
 6 Meter Local Net 52.8 MHz (PL-114.8) Sunday 8:00 PM  
 Mont. Bay Chapter 191 QCWA :Tuesday, 7:30PM,AA6T repeater, 146.700- PL 151.4  
**FOR MORE INFO SEE: <http://www.k6bj.org/freq.html>**

## SCCARC Calendar of Events

SCCARC Board Meeting 6:30	Friday	Apr. 19
SCCARC Meeting	Friday	Apr. 19
Short Skip Deadline	Monday	May 6
SCARES	Tuesday	May 14
SCCARC Meeting	Friday	May 17

## MONTHLY MEETINGS.

The SCCARC Meets at 7:30 PM, on the THIRD FRIDAY of the each month (except December). Meeting are at Dominican Hospital, 1515 Soquel Drive, Santa Cruz.

Visit the SCCARC Website at - [www.k6bj.org](http://www.k6bj.org)

CLUB E-MAIL: [yourcall@k6bj.org](mailto:yourcall@k6bj.org)

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

**Meeting: April 19, 7:30PM**

**Auction / Show and Tell**

**First Class**