

MARCH 2008

THE MONTHLY NEWSLETTER of the SANTA CRUZ COUNTY AMATEUR RADIO CLUB

# SHORT SKIP



## RadioFest 2008

The SCCARC presence at RadioFest '08 showed off many of our activities very well and the home-brew exhibits received a lot of attention. We had items that spanned 6 decades from a WWII Foxhole RX to a state-of-the-art DDS-controlled software defined radio. The LEDs of David's (WN5Y) ELR attracted a lot of attention as did the connection to our remote HF station. Rick (KI6LQL) generated a lot of in-depth technical comment and received invitations to make presentations to other clubs in the Bay area. One moment that stood out in my mind was the phone call I received from OM Dave W8FLL calling from a hospital bed to say he was arranging for a few of his home brew items to be delivered to me. That's what I call commitment



and the good news is that he was feeling much improved when he called. Thanks to KI6AIE, KI6LQL, N1WC, WS2I, W8FLL and NV7E for sharing their home-brew items. Next year we might try to be located next to the external wall so that we can put up a reasonable antenna



## FIELD DAY THOUGHTS

While Field Day remains several months off, it is time to start planning and getting our act together for a fully successful and fun event.

There are several key areas for Field Day success:

- A clear concept to the Field Day
- Adequate planning and coordination
- Active participation from everybody involved
- Good food and "logistical support."
- Skilled band captains and Elmers
- Lots of eager operators

I hope to cover these topics through a series of Short Skip articles, email, meetings, phone conversations, on-the-air QSOs, etc In short, whatever it takes to make good communication and planning happen.

## FIELD DAY: WHAT IS IT?

Field day is many things to many people:

To some it is a contest, twenty-four hours of butt-in-chair, hard core CW and phone operation. It is a good day to see if you can crank out 800 QSOs or work all states in a twenty four hour period. With adrenaline running and competitive juices flowing, Field Day can get very serious, very quickly.

To some Field Day is an excuse for a barbecue. They get their ham friends together for a meet and greet in the park, enjoy the nice June weather, good fellowship, and oh-by-the-way, they throw up an antenna and make a couple of contacts.

To others Field Day is an emergency

## OE3XEC: Winlink 2000 from Near and Far



A small team from ARENA Notfunkgruppe of Austria has been busy testing Pactor and packet radio applications, and the focus has been on Winlink 2000 (WL2K). This global radio e-mail system was being considered due to the positive experiences of EmComm organizations in the United States, Canada, Australia and the Far East. WL2K was in use by amateur radio organizations in 9/11, Hurricane Katrina, forest fires, earthquakes and floods and it's success has convinced public service authorities that its technology is a meaningful complement to existing telecommunications facilities. In the USA, MARS (Military Affiliate Radio System), and ARES (Amateur Radio Emergency Service) are activated for disasters, and they employ WL2K if required. Press articles make it clear that these operations by local organizations were invaluable. Without doubt, radio amateurs in other countries have a higher priority in public service than here in Austria.

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**CLUB MEETING FRIDAY MARCH 21, 7:30 P.M.**



## IMPORTANT announcement .

After quite a lot of discussion it was decided that in future CAKE sessions would be held at regularly on the second and fourth Saturdays of each month. I suggest that we commence this schedule not on the 8th but the 22nd so as not to overstay our welcome at Gigi's.

I do encourage any and all to get together on an adhoc basis on any Saturday for breakfast or otherwise.

—W6WO

## Feb 16

Fun was had by 5 people at the CAKE meeting on Saturday Feb 16. Apparently there was some confusion at the SCCARC meeting on Friday regarding whether or not there was a CAKE meeting on Feb 16.

The 2-hour CAKE meeting was mainly spill-over topics from the SCCARC meeting such as:

- ARES repeaters and frequencies (including the question "where should I listen on ham radio after an emergency?")
- the Why's of PL tones
- HF digital modes in general and specifically PSK-31 at Field Day

—W6ZZZ

## March 1

Regardless of my multiple errors in announcing the session today we had a record turnout with 20 or more present and at one point we were the only customers. We need to be mind-full that Gigi's isn't a community center so our user fee must come from our purchased items. It was good to have Dave W8FLL looking quite fit and to welcome a new ham Kent KI6OHY. Good to have you join our merry band Kent. Sorry that you were not with us Kathleen. I recall you were trying to contact Jeff KG6YPS who was there and

said that his email addr and phone # were active

Larry WB6MVK showed an incredible drawing of a battery powered truck designed by his Grandfather way back in the 1920s. Seems like your family was way ahead of it's time Larry.

Marc W6ZZZ handed me a copy of a chart prepared by Icom to illustrate all US frequency allocations. The test question of the day was "which is the highest frequency allocated for amateur use?" Answer this for yourself before reading further.

Rick KI6QL and Ron W6WO had a near violent agreement on the switching speed used in quadrature sampling. It was clear that for sampling every 90 degrees we needed 4 clock pulses for each cycle of the RF. A source of confusion is that these pulses do not need to be derived from a clock at 4x RF. They can be derived from a clock at the RF followed by some digital logic that generates a 2-bit code. This only recently became clear to me after looking closely at the truth table of the FST 3253 dual mux/demux switch.

We discussed using a simple softrock receiver tuned to the IF of a radio to provide a panoramic display of a receive spectrum. Bob k6XX is planning on doing so for a K3 and Rick is using his SDR receiver connected to a TS440. If you have ready access to your receiver IF this might be an interesting project for you.

Marc also showed his compilation of useful sources especially suited to new hams. It follows the decree that TMI is as bad as TLI. Work it out for yourself do you expect me to explain everything !

Jeff KG6YPS asked if a VHF/UHF base station vertical mounted above a horizontal 6 meter beam would be an effective arrangement and the consensus was yes.

Eric K6EP is another guy who just loves to score on all bands. Great job to get Ducie Isl on top band Eric

OK What is the highest amateur allocation ? How about 24 GHz ? No, 47 GHz ? Keep going 75 , 142. its 248 and that's GHz folk

—73 be radio active Ron W6WO

## Tecknowledge -Supercapacitor

WIKIpedia Supercapacitors, also known as ultracapacitors or electrochemical double layer capacitors (EDLC), are electrochemical capacitors that have an unusually high energy density when compared to common capacitors, typically on the order of thousands of times greater than a high-capacity electrolytic capacitor. For instance, a typical D-cell sized electrolytic capacitor will have a storage capacity measured in microfarads, while the same size supercapacitor would store several farads, an improvement of about 10,000 times.

100 milestones test was passed in January test by a Honda hybrid electric vehicle HEV. A supercapacitor integrated in the plates of lead-acid battery showed that battery life was extended by a factor of 4 with 50% more power than a conventional lead-acid battery. The capacitor managed the discharge more efficiently and prevented accumulation of sulphur deposits. It is claimed that the battery produces more power and costs far less than a NiMH battery

## California QSO Party

SCCARC member K6XX moved up in 2007 for the California QSO Party.

I also saw some other club members in the tables like W6WO and AE6RF plus a club entry for MBARA.

Excerpt from the results commentary:

"The number two spot was filled by K6XX up from the number five spot. Bob turned in 2,224 QSOs for a total of 324,684 points. Clearly, Bob has his sights on that number one spot. Congrats on the great finish this year."

The CQP 2007 results are available on the web site:

<http://www.cqp.org/Results-2007.html>

—W6ZZZ, CQP volunteer (publicity and log checking)



## SCCARC Starters

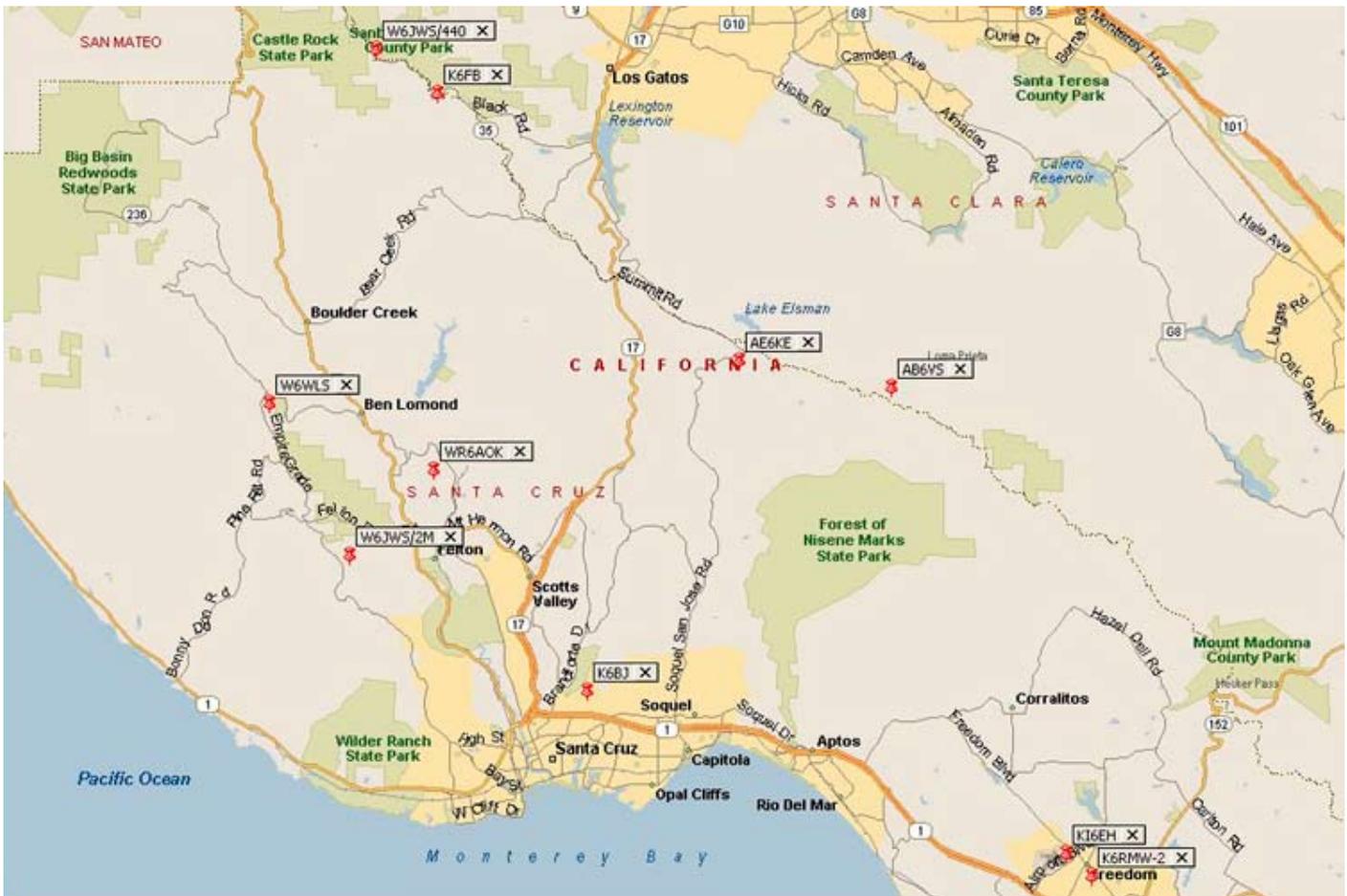
“SCCARC Starters” is a column designed to get you “started” on improving your ham radio knowledge/usefulness/fun by showcasing useful information that I found on the Web.

## Emergency Communications (EmComm) Repeater Frequencies

“Where should I listen when there’s an emergency” ?

For emergency communications it’s best (vital?) to have all the frequencies programmed into all your radios (HT, mobile and base station) ahead of time and tested to make sure they all work BEFORE the emergency happens. Immediately after an earthquake or during a forest fire is not the best time to be testing your personal knowledge by seeing if you remember a bunch of frequencies and PL tones while you desperately try to figure out how to program your radio.

## Santa Cruz County ARES Frequencies



ARES in Santa Cruz County is organized around geographic areas (Santa Cruz, South Santa Cruz County, Summit-Loma Prieta, and San Lorenzo Valley).

Santa Cruz County ARES frequencies are listed at:

<http://www.ares.santa-cruz.ca.us/aresfreq.pdf>

There is lots of useful ARES information on their main page at:

<http://www.ares.santa-cruz.ca.us/>

The ARES repeaters are located around the county as per the map from:

<http://www.ares.santa-cruz.ca.us/images/aresrptrs.jpg>

## Santa Clara County ARES/RACES Frequencies

Many SCCARC members might work in or often visit friends in Santa Clara County. So you need to "be prepared" over there also.

ARES/RACES in Santa Clara County is organized around cities/areas (County, Red Cross SJ, Campbell, Cupertino, Gilroy, Loma Prieta, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Morgan Hill, Mountain View, NASA-AMES, Palo Alto, San Jose, Santa Clara, Saratoga, South County, Stanford U, and Sunnyvale).

Santa Clara County ARES/RACES frequencies are listed at:

<http://www.scc-ares-races.org/freqs/freq-05.htm>

Also there is lots of useful general purpose EmComm information on their main web page at:

<http://www.scc-ares-races.org/aresraces.htm>

—W6ZZZ



By Art Lee WF6P

## CHATTER

At our last club meeting we were treated to a comprehensive discussion and presentation of training and administration of ARES with regard to State and local agencies. Cap, KE6AFE, did his usual fine job. Our new club president, Rich Olsen, W1WUH, was there to kick off the meeting. David H. Copp, WS2I, participated in the ARES discussions. Welcome to the club, David. Donald Kerns, AE6RF, gave us a brief on the possibility of combining the San Lorenzo Valley and Santa Cruz clubs for Field Day. The SLV club has a feeling that Field Day should be less of a PR event and more of a "Let's all just have fun" endeavor. Field Day has always been a grand opportunity for hams working together under conditions presenting many challenges. It was good seeing Kathleen McQuilling, KI6AIE, as always, performing her duties as club secretary. She is struggling with a broken foot, making it tough for her to get around on crutches. A Welcome Aboard goes to Shirley Radder, new ham and club member who brought her special homemade blueberry strudels. Mighty tasty refreshments.

At our Saturday CAKE meeting on February 16, there were only five of us present, due to the Ham Fest draw down of our members. Frankie Carroll, KD6BDK, and others engaged in a deep discussion of PSK31 communications and RTTY contests. David Copp, WS2I, brought along his impressive ham data and info notebook. It was the neatest, most organized I have seen. Ham call signs, repeater

freqs, Q signals, propagation charts and personal notes were carefully separated with dividers. It is a handy manual.

My thanks goes out again to old pal Gary Baker, N6ARV, who saved me many dollars. My XYL Donna's dishwasher was difficult to switch to the "on" position. Tearing the front door apart, I found a sliding switch with well over a dozen connections to the timer. A new switch would cost 55 bucks. A couple of years ago Gary demonstrated the cleaning abilities of contact cleaner, Deoxit D5. With the applicator in place on the can, I was able to pressure spray the inner portions of the connectors. The switch itself, about 6 inches in length, was not one that would survive drilling out the rivets for an internal view. The cleaner worked wonders on the switch. Now, with the touch of her finger, Donna, AB6XJ, can get the machine to do its job.

Was working a bit of CW the other night and tried to answer a CQ from Memphis on 40 meters. The station there was on a beam with 1000 watts out. He was off the end of my old faithful dipole, up not very high and strung from a Eucalyptus tree. I had no luck although he was booming in here. Then I answered a nice sig. The op was sending at a comfortable 16 wpm from a " and this was nice -- New York City! Chas, K2GTC, was snowed in and working from a random wire ant in his apartment. We chatted for about 20 minutes till QSB took over.

Wayne Thalls, KB6KN, gave me a heads up on the passing of Emmett (Shorty) Freitas, AE6Z on February 25th. I had just read something where Shorty's VE group had been the top ARRL Volunteer Examiner team. His team gave the exams on a monthly basis for approximately 20 years. My daughter and granddaughter took all their license exams in the Tandem Computer building. I did not know it but Shorty had been a Chief Radioman in the Navy and

served where I had, the Lakehurst Naval Air Station. My duties took me on regular trips to the Communications Building from which Shorty had undoubtedly operated. The "new" blimp hangars were built in WWII but the administrative buildings all dated from the 1920s.

Good News: According to an article in the Nov 8, 2004 issue of Aviation Week and Space Technology (pp 21), the Max Planck Institute analyzed ancient tree trunks for evidence of past sunspot cycles since the end of the last ice age 11,400 years ago. They concluded that the present high level of sunspot activity will continue for the next few decades. They didn't come right out and say that solar activities and magnetic storms were in part responsible for global warming.

## KF60ZP SK

The Sentinel reports that club member "Chuck" Wiser KF60ZP is now a SK.

Many of us have done public service with Chuck, and we'll sure miss his good nature. Condolences to Bob K6RMW and the family.

Charles Dennis Wiser Jr., who died Feb. 25 in Watsonville. He was 91. Mr. Wiser was born in Detroit, and graduated from San Jose State University.

—Cap KE6AFE

## WB6PCC SK

The Sentinel reported today that old time club member Roger Thompson WB6PCC is an SK. He was very active in establishing the first local repeater and on amateur TV but has not been active in recent years.

—Larry WB6MVK

## Field Day

exercise. It becomes a chance test out their emergency communications equipment and skills under actual field conditions. They find out if

their planning and logistics are sufficient to defeat Murphy on his home turf.

Santa Cruz county is lucky in the fact that it has an established Field Day "tradition." For the experienced operators, Field Day is an "old habit." They know pretty much what they want to do, and what it is going to take.

However, we are also VERY blessed with a large crop of new operators, people who have only been active for a couple of years and are in the steep learning curve of ham radio. As a group, we owe it to these newer operators to Elmer them in good, fun, and safe operating practices. Field Day is an excellent opportunity to do so.

This year we will follow last year's highly successful recipe of two-thirds contest and one third excuse for a barbecue. The contest part keeps the interest of the experienced operators and allows less experienced operators the opportunity to operate on top notch equipment and observe "experts in action." The barbecue part keeps the experience fun, social and insures that we don't take things too seriously.

## WHAT IS THE CURRENT PLAN?

Currently the plan is to operate four-A at the CALFIRE Ben Lomond Training center.

"What is four-A and why do we want to do that?"

Four-A is the Field Day designator for a club station, with four main HF transmitters on the air at the same time. At this point in the solar cycle, only one or two bands are open at a time. 15 and 20m or 20m and 40m during the day. 40m and 80m are open during the evening. Operating with four transmitters allows us a Morse Code (CW) and a Single Side Band (SSB) station on each open band. We hope to run digital modes from the Get On The Air (GOTA) station.

GOALS: Four HF (six total) stations Having four main stations, plus a VHF/UHF station, plus a GOTA station, plus really good food requires SEVEN people people to step up to the various challenges. We can come up with tents, radios, generators, but we can't easily come up with experienced operators. If you have several Field Days operating experience, or do contests, or serious DX, PLEASE

consider being a station captain!

Computer logging Last year we conservatively lost a hundred QSOs due to paper logging. Not to mention that we looked like LIDs due to duping. We \*will\* be computer logging using the excellent (and free) N1MM logging program. If you need any help downloading, installing or configuring N1MM, PLEASE feel free to contact me directly.

STRETCH GOALS: Network logging

Last year we attempted network logging. It was a "bridge too far." We had more than enough issues getting five stations on the air on time to add computer networking to the mix. Also, last year our Field Day plan was sufficiently static as to not require station-to-station log communication. This year, our operation may be a bit more dynamic, tracking the open bands. If different stations will be working the same band at different times, their logs MUST communicate to prevent dupes. With luck, early preparation and additional elbow grease, we can make it work this year. Better antennas Last year we had a single tri-bander, a single vertical and a bunch of low dipoles. This year we will push ourselves a bit harder. Perhaps a Moxon rectangle for 40m? Perhaps a v-beam from those nice high redwoods? We can do significantly better with a bit of foresight.

As the weather warms up and the days get longer, be thinking Field Day.

All roles are open: band captains, cooks, first time operators for the GOTA station, die-hard Technician classes for the VHF/UHF station, long-time brass pounders for CW operations, computer network people, tree climbers, welders, lizard wranglers, mascots, road-dust waterers and kibitzers. All are needed for a successful Field Day!

Always available via email: ae6rf@arrl.net Also on WA6OAK or W6JWS-440 during commutes or at home 831 338-1214.

Very 73 de Donald AE6RF

## Treasurer's Report

The February 2008 Net Worth Report presented to the Board of Directors showed that the SCCARC treasury had \$4,702.88 in cash and bank accounts. At that time all financial obligations had been met. The full Net Worth Report will be available for review at the March 21 Club meeting.



**Kerosene Radio** Made in Moscow for use in rural areas, this all-wave radio is reportedly powered by the kerosene lamp hanging above it. A group of thermocouples is heated internally to 570 degrees by the flame. Fins cool the outside to about 90 degrees. The temperature differential generates enough current to operate the low-drain receiver. Regular listeners may want fur-lined union suits, though: It works best in a room with open windows.



## SCCARC Board - 2008

<b>President</b>	Rich Olsen	WIWUJ	510 415-8920
<b>Vice President</b>	Don Taylor	K6GHA	k6gha@k6bj.org
<b>Secretary</b>	Kathleen McQuilling	KI6AIE	476-6303
<b>Treasurer</b>	Cody Adams	KG6YPK	
<b>Board</b>	Christopher Angelos	KG6DOZ	688-3562
	Reed Cotton	NIWC	460-1801
	Mike Doern	KM6IKE	477-1161
	Bruce Hawkins	AC6DN	
	Ron Skelton	W6WO	477-1021
<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+ PL123 (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	Mar 21
Board Meeting	Wed	Mar 26
Short Skip articles due	Monday	April 7
SCCARC Meeting	Friday	April 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)

3/17	Phil KE6UWH
3/24	Allen WB6RWU
3/31	Chris KG6DOZ
4/7	Tom K6TG
4/14	Diane KI6IFS
4/21	Cody KG6YPK

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Published 12 times per year.  
Free to members.

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

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Santa Cruz, CA 95061-0238



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P.O. BOX 238  
SANTA CRUZ, CA 95061-0238

## SCCARC Membership Renewals

If you have already renewed your membership for 2008, thank you! If you haven't, please do it now. 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..

## 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](mailto: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.

--Kathleen, KI6AIE