

SEPTEMBER 2000

THE MONTHLY NEWSLETTER of the SANTA CRUZ COUNTY AMATEUR RADIO CLUB

# SHORT SKIP

## The MRS Mk III Beam

### (A Perfect Patio Propagator)

Following rapidly on the debut of the MRS MkI in the August Short Skip came the MkII which added an optional mount for vertical polarization. This antenna enjoyed great success, increasing our sales more than 100%

Not content with resting on their laurels, the creative minds at MRS Enterprises have come up with a major breakthrough in the MkIII. This now covers the 2 Meter and 440 MHz bands and delivers 6 dB gain with 20 dB front-to-back and deep side nulls using a single 50 Ohm feed at an SWR better than 1.5:1. The antenna is compact and insensitive to vertical mounting compared to conventional yagis. It has the same gain and better front to back than a conventional two element yagi. Patents and trademarks are pending on the design and name "MOGI" being a combination of the MOxon and YaGI beams.



The MkIII showing the Stealth Option

(Note the red and blue tape was overlooked by the MRS QA Dept)

Although the earlier 2 meter versions can be operated on two bands the degraded performance on 440 did not meet the high standards of the MRS design team. An optimum two-band design was found after extensive research and the invaluable aid of the NEC antenna modelling tool.

Two additional parasitic director elements resulted in exceptional performance on both bands at 144 and 432 MHz. The first director is 13.1 inches spaced one inch in front of the driven element the second director is 12.2 inches spaced 3.4 inches in front of the driven element. The 440 geometry is critical to a tenth of an inch and all elements in this design are quarter inch aluminum rod.

Some construction hints are as follows. Use plastics rather than metal but avoid PVC that may have excess loss. Run the coax feeder perpendicular to the antenna elements and include 3 turns of coax as a common-mode choke. Plastic stealth treatment without metal will have little affect but more research is required on suitable live plants.

Make your own version of this "Soon-To-Be-World-Famous Beam" and keep your ears open for announcements of more complex and ruggedized versions of MOGI antennas.

— 73, Dave (KO6RS) Chief Scientist — Ron (W6WO) Chief Engineer

## RF EXPOSURE

Starting September 1, every US amateur is required to fully comply with the FCC's RF exposure guidelines.

The regulations, which went into effect January 1, 1998, require US Amateur Radio operators to read and understand the rules and, where necessary, perform technical evaluations to determine that their stations are compliant with the new regulations. Up until now, only hams who have had to file an Amateur Radio application with the FCC have had to certify compliance with the RF exposure rules. As of September 1, all amateurs must comply.

Under the regulations, an amateur station must not exceed the maximum permissible exposure limits for transmitter operation. See QST or go to: [www.arrl.org](http://www.arrl.org)

— Allen WB6RWU

## FCC TURNS DOWN

### CB DX PETITION

The FCC has denied a petition that would have amended the FCC's Part 95 rules to permit DXing on the 11-meter Citizens Band. The petition sought to amend 95.413 of the rules that prohibits communications or attempts to communicate with CB stations more than 250 km away and to contact stations in other countries.

Designated RM-9807, the petition was filed by Popular Communications Contributing Editor Alan Dixon, N3HOE.

"Dixon's request is inconsistent with the purpose of the CB Radio Service and could fundamentally alter the nature of

*Continued Pg. 5*

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## CLUB MEETING FRIDAY SEPTEMBER 15, 7:30P.M.

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# SHORT SKIP

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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) 427-0565  
K6EXT@fireclay.com

Columnist  
Art Lee, WF6P

Production and Distribution  
Dave Harbaugh, W6TUW

## KD6FXQ REPEATER IS NOW K6RMW

The KD6FXQ ARES repeater in Watsonville (147.015) will be changing shortly to K6RMW, which is my new call sign. I decided to change it since passing my Extra class ticket. I am sending in a change to NARC to this effect and the repeater should get changed here in about a week or so.

— 73, Bob Wiser, K6RMW (formerly KD6FXQ)



## ARES REPEATERS

The Santa Cruz County Office of Emergency Services furnishes three repeaters to ARES. The repeaters are operated by ARES. All repeaters require a PL of 94.8. The frequencies and locations are as follows:

|              |                 |                    |
|--------------|-----------------|--------------------|
| <b>K6RMW</b> | <b>147.015+</b> | <b>Watsonville</b> |
| <b>N6IYA</b> | <b>146.745-</b> | <b>Bonny Doon</b>  |
| <b>N6ZOC</b> | <b>146.835-</b> | <b>Summit</b>      |

**Watsonville ARES** Net meets each Thursday night 8:30PM on the K6BJ and K16EH (linked) Repeaters at 146.79- / 147.945- Mhz.

The **Santa Cruz ARES** meets the second Tuesday each month at the Santa Cruz Red Cross on Soquel Avenue at 7:30PM. Net meets each Monday at 8:30PM on 146.836 - PI 94.8



## Prez Sez

I have monitored many a QSO on the K6BJ repeater this year between members assisting each other with some aspect of Ham Radio, and these conversations have been music to my ears. Likewise I have noted numerous instances of requests for information posted on the K6BJ e-mail reflector and the subsequent helpful replies. I know these are just a few strings I have caught of the web of help and information lines woven by our club members to share their particular expertise with others. As I have had the pleasure to preside over our club's business this year I have come to the conclusion that facilitating healthy relationships amongst our members is the prime purpose of our governing body. When you have a question or issue concerning amateur radio (or computers!), who you gonna call? Well, if you're a member of SCCARC, you know where to start!

I would like to thank my fellow club officers and board members for doing an especially fine job this year, making my life as President quite easy. Also thank you to everyone who has contributed their time and energy in so many essential areas this year such as repeater maintenance, refreshments, greeters, auction table, field day, and Short Skip contributors. Speaking of Short Skip, thank you Ron Baldwin, K6EXT, for your much appreciated labor of love in editing and publishing our monthly newsletter.

Next month we will be holding elections for club officers and board members for SCCARC 2001. Please consider offering your services if you feel so moved, or feel your arm being twisted by the nominating committee!

— 73, KQ6DV

## VARACTOR— POOR MAN'S AIR VARIABLE

**Q.** I've seen designs that use a regular silicon diode (like a 1N914 or a 1N4001) as a varactor. What kind of capacitance could one expect from these devices?

**A.** The best cheapie diode to use as a "poor man's" varactor is the 1N4004. It has about 32pF of capacitance at 0V, decreases fairly linearly to about 6-7VDC, and fairly good Q. The other diodes mentioned, such as the 1N4001 and 1N914, have about 20-25pF max. capacitance. However, I have seen wild variations in the capacitances with 1N914/1N4148 general purpose diodes and wouldn't recommend those unless you have the means to measure the actual capacitance vs. voltage.

—72, Paul NA5N

## K6RMW—Now Extra

Bob Wiser, formerly KD6FXQ, has upgraded to Extra class and has a new call sign. Bob is now K6RMW. Congratulations, Bob!

— 73, Cap

## BUSY BEES

Engineers at Pacific NW National laboratory helped outfit honey bees with tiny radio transmitters as part of a project to determine if bees could help pinpoint landmines. Will we one day use radio-equipped micro-organisms in novel ways?

Marconi once said "Never underestimate to potential of wireless." I hope he is smiling down on this effort!

— 73, Ron W6WO

## Trade or Sell Table

Bring your surplus radio gear to sell or trade. The table will be set up before the club meeting. Put a price on your goodie and have fun trading or selling: mics, connectors, handhelds and related equipment, receivers, transmitters, etc. Let's have fun!

—Dan AA6GD



By Art Lee WF6P

## CHATTER

There is nothing worse than a bad signal report. This morning from my friends in San Diego: "You're booming in here, Art, but your signal is distorted and you seem to be breaking up." Now what? OK, you know that you are on the second floor of your daughter's Sacramento house and the ground wire was disconnected when the new deck was put in. You've operated without a ground under these conditions in the past and things were OK. Yet, the ground is an important part of a dipole strung between an old Oak tree and a fence post. You've already trimmed the small branches that drooped across your antenna - well, that WAS last month. How fast do leaves grow anyway? Then there is that new lamp in the downstairs bookcase your daughter just bought. You know, one of those fancy lamps where you tap the side of the bookcase with your hand and the light comes on or off. They were complaining that when I sent CW the dratted lamp came on and off, matching the dits

and dahs. It looks like a trip to the hardware store to buy a new ground rod to replace the one that was decked over. Then there is the matter of where to put it and pounding it into the hard ground. If the ground wire gets too long, say, at the end of the deck, it becomes just another element of the antenna and radiates also. I've had RF burns from that kind of arrangement. Maybe I should cut a hole in the deck and run the ground through there. I don't know how my son-in-law would feel about that. I need a sledge hammer to drive the rod in but my grandson has that in the back of his pickup and he went to Folsom lake with his boat for the day. It is kinda hot and muggy outside. Or maybe I will just take the family to breakfast at IHOPs out on Sunrise Boulevard, next to Highway 50, and come back and watch some tennis or football on the tube.

I kept a schedule with my pal, Terry Parks, N6NUN, while he was vacationing on his boat in San Diego harbor. He has a new SSB rig on board and it works fine on the ham bands. I checked in with him daily and he told me about him and his family enjoying the sunshine and tropical weather down south. His wife Hien strapped a life jacket on their eighteen month old daughter Emily and Terry took her out in the bay in their inflatable boat. The water down there is warm and Terry likes to swim in the ocean. (Swim in Santa Cruz? Brrrrr — too cold for

me.) The ladies flew back to Watsonville and Terry followed in his pickup truck. We made several contacts during the day on HF as Terry progressed up the coast. Having an HF rig in the car is fun, especially when you are sitting in north-bound traffic on the Grape Vine and can chat away with friends, new or old. Terry and I will be bringing his Hatteras 53 up from San Diego to Ventura in a month or two.

I'm happy to see that Bob Fike, KO6XX, is conducting ham classes again. The free classes start on September 8th but if you miss the first class or so, maybe you can still get in. He will be teaching at the California Department of Forestry, Felton, on Gushee St., Tuesday and Friday nights at 7:00PM. Classes end on October 6th with testing! If you are a ham and want to stop in and say hello to his students, they will be glad to meet you. Learning is fun. Thanks Bob, for your time and effort in making future hams.

The Shriners help children with orthopedic problems, spinal, or burn deformities. This is a free service of the Shriners Sacramento Hospital for those who qualify. If you know of anyone who needs this help, there will be a screening clinic on Saturday, October 21, 2000, at Salud para La Gente health Clinic, 204 E. Beach St., Watsonville, from 9:00AM until 1:00 PM. For info, call Myrl Blum at 429-1653 or Art Lee at 426-5279.

## ITVA PRODUCES YOUTH-ORIENTED AMATEUR RADIO TV SPOT

The San Francisco Chapter of the International Television Association has produced a 30-second TV public service announcement designed to assist the amateur community in recruiting more young people to the hobby. Copies of the TV spot are being made available to Amateur Radio clubs for distribution to local television outlets at nominal cost.

Each year ITVA volunteers produce a public service announcement for a charitable or nonprofit organization. This year, they focused on Amateur Radio.

ITVA President Ken Alan, K6PSI, said he'd been hearing about the need to recruit "new blood" into ham radio, "so I suggested it to the PSA committee, and everyone loved the idea." ITVA recruited

several San Francisco Bay area hams to consult on the development of the story line for the 30-second spot.

Spot producer Michelle Brown said ITVA "focused on the message on the two concepts that most appeal to that demographic: high technology and disaster preparedness."

Alan says the producers "wanted to show young people using H-Ts for socializing and in a disaster scenario." Referring to the "high tech world of Amateur Radio" and using rock music in the background, the announcement points out that hams can talk to people all over the world. The spot also depicts a simulated earthquake or explosion, where the things start to shake, lights flicker and go out and

there's a cry for help. The young, female ham grabs her H-T to call for assistance.

The spot concludes with an invitation to "find out more about amateur radio" and provides a 10-second visual backdrop for a local sponsoring club to superimpose its name and contact information. The whole idea, Alan told ARRL, was to steer clear of ham radio stereotypes and "just show the hobby as contemporary, high-tech and fun."

A Quicktime movie of the PSA can be viewed at the ITVA Web site at <http://www.itvasf.com>. Amateur Radio organizations may order a professional Betacam copy to be used in their television markets at \$20—which covers the cost of tapes, duplication, and shipping.—ITVA

# How Clubs Can Introduce New Hams FAST

Daniel Bartlett (VK4TDB) on August 23, 2000

Here is a checklist discussing how clubs can get new members into the hobby FAST. Follow this list, and you are sure to get a few more people in.

1. Put an ad in your local newspaper, advertising your next meeting. Have something like "What is Ham Radio?" Come along to our meeting at ..... and find out!
2. Have HEAPS of brochures and information ready for people on the meeting day. You should also have a station set up, and a few simple things for people to try.
3. Get people to talk about basic aspects of ham radio at the meeting. Show off QSL cards. Have an APRS station going...

If you follow the above instructions, you are sure to get a few new people into AR. If all else fails, bring a friend!

Member Comments

No kidding... Reply

Anonymous post on August 23, 2000

It is all too true. People out there really don't know what AR is all about. I am on my way to getting my license and every time I mention this to somebody they invariably say, "What can you do with that?" Also, if I ask them why they don't want to get into it they always tell me about how they don't want to learn code. Now, while some folks out there enjoy sitting in their shack spitting out code at 30WPM, not all hams are that way, but people think of amateur radio as being just that. I did. This all ended when my buddy grabbed some books from the throw-away pile, one of which was the ARRL testing guide. I read it, and fell in love. I agree that it is important for clubs to try to dissuade this attitude, but I think there is one thing that could be done to help out even more: Clubs should set up tables at local fairs and events. Non-hams don't benefit from hamfests, so we should try to make a point of showing our stuff at non-ham related events. Also, clubs can have speakers at local book stores and places like that. In the meantime, I will preach

the AR hobby to everyone I know.

Preach the Truth!

Reply by AB2BK on August 24, 2000

I agree clubs can do more to advertise Amateur Radio. Our local club, during Field Day, was featured on a local access cable network. You will find that most of these types of cable channels will be willing to give you airtime, especially if you are hosting an event in their covered communities. It went over so well that we were asked if we would be interested in doing a quarterly show on Amateur Radio! Don't forget, PREACH THE TRUTH. Amateur Radio is a fun family oriented hobby that brings people together, crosses borders and builds lasting friendships. It teaches practical electronic and communication skills, educates us on geography, science and technology and enables us to set and achieve goals. If someone sold the hobby to you this way, even if you weren't interested, wouldn't you want to get your kids involved? Amateur Radio sells itself, it just needs a few apostles to carry the message!

— Regards, Len Davis, AB2BK

RE: Preach the Truth!

Reply by KC0ILP on August 24, 2000

As a new ham, I have to agree!

I showed up at my local club's meeting one month this summer (nothing against them - btw, from what I'm learning, they're a great club in spite of my initial experience!). Nobody said hello. Nobody noticed I was a newcomer. After some record keeping, one fellow spoke at length about antenna ordinances and his battle with the city, a few older fellows spoke about matters "way back when", and a bunch of other insider matters were discussed. Thank goodness for the cookie and coffee break, where I went up and introduced myself to folks. The second half had a session about weather nets that was interesting, but still intimidating. Granted, hams may not be the most extroverted folks on the block, but then again, neither are your prospective new members. A few things like the following would have made all the difference:

- Ask for a show of hands of new persons. then identify a member of the club that would "like to meet them one on one during the break/after the meeting/etc." Many organizations work through a sponsor, and although it's a bit formal for my likes, having a new friend to go to hang out with initially at the meetings, etc. Sure makes it more inviting!

- Find out what we're interested in, and follow up on it! I filled out a survey indicating my interests... Only to never hear from anyone. Again, I persisted and managed to find the respective committee directors in these areas, but many new hams won't.

- Establish a new ham elmer support committee! besides all the new tech, FCC rules, special areas (APRS, repeaters, etc.) that we're trying to stuff into our heads, there are unwritten codes you all follow. Help us so our first experiences are positive ones, or we'll go away for good.

- Watch the amount of old business material you deal with in a meeting. General club meetings shouldn't be the place for fighting battles (would you fight with your spouse in front of company?). Do this in committee meetings or better yet offline. Monthly club meetings should be social, informative and fun!

Don't forget, there's a reason not everyone on your street is a ham - this stuff intimidates 99% of the folks out there. Helping us new guys to feel welcome in your club makes all the difference between the hobby succeeding or not.

— My \$0.02... KC0ILP

## SURPLUS (JUNK) PARTS WEB SITE

I found a good website "Silicon Valley Surplus Sources" that lists and rates different surplus parts stores over the hill in S.J. area. It's great for finding stuff for your scratch building and experimenting projects.

<http://www.kce.com/junk.htm>

— K6EXT

## Motorola to destroy Iridium Satellites

While Phase 3d gets ready to go into space, there is word that the bankrupt Iridium satellite communications system will be de-orbited and permitted to burn up in the earth's atmosphere. This as Motorola announces plans to begin the destruction of its failed commercial satellite telephone system.

According to news reports, controllers may have already been given the go ahead to begin the de-orbiting process for the sixty-plus microsats. The exact timetable for the destruction of all of the tiny birds should be announced as this newscast goes to air.

When Motorola first announced that it would abandon the system, some hams suggested asking that the company simply give the entire constellation to ham radio for educational and experimental purposes. Unfortunately the idea never gathered much momentum and whether or not a formal offer was made is not known.

(VHF Reflector, other news reports)

—Amateur Radio Newsline



• **Foothill Flea Market** - 2nd Saturday of each month from March to October at Foothill College, Los Altos Hills.

• **Livermore Swap Meet** - 1st Sunday of each month at Las Positas College in Livermore, 7:00 AM to noon, all year. Talk in 147.045 from the west, 145.35 from the east. Contact Cliff Chiba, KF6EIL, (209) 835-6715, email larkswap@usa.com.

• **Sonoma County Hamfest** The Sonoma County Radio Amateurs is again holding their popular hamfest this year. It will be held on Saturday, Sept. 16, 6:30 AM to 1:30 PM. The location is at the Lewis Adult School, corner of Lewis Rd. and Lomitas.

## IARU REGION III CONFERENCE CALLS FOR MORSE EXAM PHASEOUT

The 11th International Amateur Radio Union Region III Conference ended September 1 by resolving to seek the ultimate removal of Morse code proficiency as an International Telecommunication Union licensing requirement for HF operation. As "an interim measure," the conference agreed to support the reduction of all Morse code testing speeds to 5 WPM.

"IARU Region III strongly supports Morse code as an effective and efficient mode of communication," the resolution said in its preamble. "However, it believes that the position of Morse as a qualifying criterion for an HF amateur license is not relevant to the healthy future of amateur radio."

The resolution urged IARU Region III member societies to seek an interim 5 WPM Morse code testing requirement while looking toward eventually eliminating the Morse requirement altogether. "We recommend that, setting aside any previous relevant decisions of earlier Conferences, a policy of the removal of Morse code testing as an ITU requirement for an amateur license to operate on frequencies below 30 MHz be adopted by IARU Region 3," the Conference resolution declared.

Voting in accordance with ARRL Board policy, International Affairs Vice President Rod Stafford, W6ROD, cast the lone dissenting vote on the League's behalf, although he voted in favor of an earlier motion to support 5 WPM as the top code speed for testing. The Hong Kong Amateur Radio Transmitting Society abstained. The Asian and Pacific region's other member societies favored the resolution.

The Region III Conference, meeting in Darwin, Australia, recommended that the IARU Administrative council adopt its position as IARU policy. Meeting September 3-4 in Darwin, the Administrative Council declined to act on the policy recommendation, however, until after the Region II conference next October in Guatemala.

## The WWW is not WW

Only one in 20 people around the world are online, and close to 60 percent of Internet users live in North America. This, even though the region accounts for just five percent of the world's population. In Africa, there are a mere 14 million phone lines. That is fewer than are found in either Manhattan or Tokyo.

But even in North America the Internet is not within the reach of everyone. The research firm Jupiter Communications Inc. says there are yawning Internet-use gaps in the U.S. between high income and low-income households, ethnic groups and age groups.

According to Jupiter, sixty percent more white households in the U.S. are online than African-American households, and the elderly account for only sixteen percent of the country's Internet-user community.

While many of these gaps are expected to close in a few years, Internet content is still likely to target well-heeled, well-educated and mostly English speakers, because of advertising and e-commerce.

(Internet Futures Newsletter)

— Amateur Radio Newsline

## CB cont.

the service," the FCC said in turning down the petition.

The FCC said CB operators generally supported the proposal and stated that the present rule was unenforceable. The ARRL commented in opposition to the petition. "The Amateur Radio Service is the proper forum for the desired long-distance communications sought by the Dixon petition," the League told the FCC.

The National Association of Broadcasters also opposed Dixon's petition. The NAB said that the restriction was necessary to deter CBers from operating at excessive power levels and that consumers must be protected from illegal CB transmissions that interfere with radio, TV and other consumer electronics.

The FCC agreed with the ARRL and said it did not intend to create a service paralleling the Amateur Service when it authorized the Citizens Radio Service. "Amending the rules to permit long-distance and international communications would undermine the purpose of the CB Radio Service rules and compromise one of the core distinctions between the CB Radio Service and the Amateur Radio Service," the FCC concluded.

### SCCARC Officers - 2000

|                |                   |        |          |
|----------------|-------------------|--------|----------|
| President      | Tom Johnson       | KQ6DV  | 464-3120 |
| Vice President | Don Henneuse      | KF6KGO | 438-1486 |
| Secretary      | Cap Pennell       | KE6AFE | 429-1290 |
| Treasurer      | Allen Fugelseth   | WB6RWU | 475-8846 |
| Board          | Bruce Hawkins     | AC6DN  |          |
|                | Dave Rank         | KO6RS  | 688 4542 |
|                | Bill Walters      | W6PAD  | 688-0557 |
|                | Lauren Hardy      | KC6TPW | 462-0247 |
|                | Ron Skelton       | W6WO   | 477-1021 |
| K6BJ Trustee   | Royce Krilanovich | AC6Z   | 475-4798 |

### MONTEREY BAY ACTIVITY

**K6BJ / KI6EH** (Linked) • SCCARC Net Monday 7:30 PM 146.79- /147.945-  
146.79- /147.945- • SC ARES Net Monday 8:30 PM 146.835-  
(PL 94.8) • Watsonville ARES Net Thursday 8:30 PM 147.945-

**K6BJ / UHF**  
440.925 (PL 123)

**K6LY** (Monterey) • Monterey ARES Net Wednesday 7:30 PM  
146.97- (PL 94.8) • NPSARC Net Wednesday 8:00 PM  
444.700+ (PL 123) • Monterey Bay Traffic Net Nightly 9:00 PM  
(Linked) • Monterey Bay Swap Net Wednesday 8:15 PM  
• Newline (Ham News) Broadcast Wednesday 8:30 PM

**N6IYA** (Felton) • SLVRC Net Thursday 7:30 PM  
146.745- (PL 94.8) • SLV ARES Net Monday 7:30 PM  
• Newline (Ham News) Broadcast Sunday 9:00 PM

**6 Meter Local Net** 52.8 MHz (PL-114.8) Sunday 8:00 PM  
**SCCARC 10 Meter Net** 28.308 MHz USB Monday 7:00 PM  
**Mont. Bay Chapter 191 QCWA** :Tuesday, 7:30PM, AA6T repeater, 146.700-(NO PL).

### SCCARC Calendar of Events

|                           |         |         |
|---------------------------|---------|---------|
| SCCARC Board Meeting 6:30 | Friday  | Sep. 15 |
| SCCARC Meeting            | Friday  | Sep. 15 |
| SHORT SKIP deadline       | Monday  | Oct. 9  |
| Santa Cruz ARES           | Tuesday | Oct. 10 |
| SCCARC Meeting            | Friday  | Oct.20  |

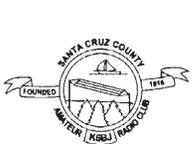
**NEW!** – CLUB E-MAIL: [k6bj@arrl.net](mailto:k6bj@arrl.net)  
– SCCARC Website: [www.k6bj.org](http://www.k6bj.org)

### 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.

### NET CONTROL SCHEDULE (Subject to Change)

|       |              |
|-------|--------------|
| 9/11  | Tom K6TG     |
| 9/18  | Jeff KF6BKG  |
| 9/25  | Allen WB6RWU |
| 10/2  | Phil KE6UWH  |
| 10/9  | Ron W6WO     |
| 10/16 | Dave W6TUW   |



# SHORT SKIP

**SANTA CRUZ COUNTY AMATEUR RADIO CLUB**

P.O. BOX 238

SANTA CRUZ, CA 95061-0238

Forwarding and Address Correction Requested

**Next Meeting Sept. 15**

**First Class**